Prof.dr. M.J. van Lieburg

The history of the Sophia Children's Hospital in Rotterdam

ERASMUS PUBLISHING

THE HISTORY OF THE SOPHIA CHILDREN'S HOSPITAL IN ROTTERDAM

'Considering all this, the Sophia Children's Hospital might well be Rotterdam's most enchanting monument'

Het Parool, 1963

Prof.dr. M.J. van Lieburg

The history of the Sophia Children's Hospital in Rotterdam

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Introduction

We have great pleasure in welcoming the publication of this new memorial book dedicated to the Sophia Children's Hospital. This children's hospital is part of the Erasmus University Medical Center (Erasmus MC). Heading the fields of scientific research, education and patient care, Erasmus MC-Sophia is a jewel in Rotterdam's academic crown.

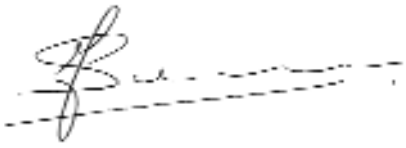
Since the previous memorial book, published in 1975, new information has become available about this hospital, which meanwhile has seen many changes. A new memorial book, comprising the second half of the nineteenth century and the whole of the twentieth century is thus called for.

We, therefore, greatly appreciate that the Foundation Sophia Children's Hospital Fund took the initiative to realize this new memorial book.

Rotterdam, June 2004

Drs. M.H. Meijerink
Chairman, Board of Directors

Mr. J.H. Schraven
Chairman, Supervisory Board



Preface

The Sophia Children's Hospital in Rotterdam is a household word since 1863, and a trustworthy address for parents in the greater Rijnmond area with severely sick children. Since decades the name of the Sophia Children's Hospital is known to the national and international medical world for its pioneering medical research.

The establishment of the Sophia Children's Hospital in 1863 was – as was not unusual at the time – the result of private initiative. Various well-known residents of Rotterdam raised the starting capital, and during many years privately raised monies contributed to the running of the hospital and to the periodic new building activities. External financial contributions still remained essential after the hospital joined the Medical Faculty in Rotterdam and the building complex on Gordelweg was transferred to the State as a dowry to the University Hospital Rotterdam. Although the Sophia associations and foundations were no longer financially responsible for the upkeep of the hospital, their financial support proved indispensable during the construction of the new hospital on the site of the University Hospital Rotterdam on Dr. Molewaterplein in the years 1991-1993, in order to ensure that the new building and its furnishing would meet the desired standards. Besides, the many research projects and special activities in the hospital call for extra capital, which regular budgets do not provide for, and which the Sophia foundations aim to raise in their fundraising campaigns.

In 1975 a fine memorial book on the hospital, 'Het Sophia Kinderziekenhuis 1863-1975', appeared from the hand of the then medical student Mr M.J. van Lieburg. By virtue of its nice readability and the many pictures and illustrations it is a much consulted work. Twenty-five years later, however, the need was felt for a new memorial book with updates on the present new hospital and the history of the past 25 years. For it is not only the new building, but also the integration of the hospital

with the Medical Faculty and the University Hospital Rotterdam that led to many changes in the situation since the previous publication. The author of the previous memorial book professor M.J. van Lieburg – now an authority on the history of our country's healthcare – declared himself willing to prepare a new edition. In his view the older history also required rewriting, as a great deal of new material from the past had become available.

My predecessor Mr L. van Stolk wrote in his foreword of 1975 that from the very start we have felt steeled by the interest shown by the Royal Family. Her Majesty Queen Sophia was the first in this respect by lending her name to the hospital. She and her successors in the Royal Family have underlined their interest in the hospital by regular visits.

Our Sophia Children's Hospital would never have earned such a strong reputation nationally and internationally without the dedication of all workers in the hospital from its establishment until today. Departmental heads, specialists, nurses, administrative and laboratory staff, they all have been equally important to the hospital. To all these workers, therefore, we gratefully dedicate this memorial book!

We are not only grateful to the author of this memorial book professor M.J. van Lieburg, but also to the 'emeritus' professors of pediatrics and pediatric surgery, professor H.K.A. Visser and professor J.C. Molenaar, and our honorary chairman Mr O.A. Thissen, who functioned as advisory committee to the author, and to my forerunner Mr G.Chr. Kok under whose supervision the genesis of this book was realized.

On behalf of the Board of the Foundation Sophia Children's Hospital Fund,
R.P. Pfeiffer, LL.M, former Chairman

Acknowledgements

At the request of the Board of the Association Sophia Children's Hospital I have revised and updated the memorial book that was published in 1975 on the occasion of the conveyance of the buildings of the Sophia Children's Hospital to the State. The revision consisted of presenting more extensively a number of subjects that at the time had been addressed in condensed form only, such as the broader context of the history of the local hospitals, the historical position and fortunes of the Nurses' Association as the eldest district nursing organization in Rotterdam, and the history of the Infant Clinic. The description of medical advancements, which in the previous publication was partitioned over different periods, is now confined to a separate, continuous story.

Updating was a more troublesome undertaking than foreseen. Having to summarize in a few pages thirty years of university-affiliated pediatrics, pediatric surgery and child psychiatry in Rotterdam as to its organization and content matter is actually a mission impossible. Of the many dozens of persons who through their dedication to the Sophia Children's Hospital and their contributions have enabled the full metamorphosis of the Rotterdam children's hospital to a university pediatric center with a great national and international reputation, only a few could be mentioned by name. Likewise, of the many developments and events that deserve further study and detailed description and analysis, only a few could be pictured sketchily. In view of these limitations I have decided not to add extensive notes and glosses that might suggest completeness. The references to the sources and literature on which the text is based, I have now grouped in a bibliographical annotation.

Many people have assisted me in my activities in the past years. The advisory committee, consisting of Messrs. Thissen, Visser and Molenaar, played a special role. I extend a particular word of thanks to Mr O.A. Thissen, who with his typical energy

and decisiveness kept the project running and who has gone to any lengths to enable me to record as accurately as possible the administrative vicissitudes during his long-lasting active role as administrator. No less important were the contacts with professor H.K.A. Visser, the undisputed driving force behind the gaining of university status for childhood medicine in Rotterdam and architect of the university center for the sick child, who spared no effort to let me profit by his inspiring vision on and his detailed knowledge of modern pediatrics in general and of the Sophia Children's Hospital in the quarter century when he was active there in particular. Professors J.C. Molenaar and professor Mrs. J. Sanders-Woudstra, who with their respective precursors laid the foundations for the present Departments of Pediatric Surgery and Child and Adolescent Psychiatry, were not only patient readers and commentators in the advisory committee, but also important informants for the historical fields in which they played their leading roles.

In consultation with the triumvirate that now heads the organizational triptych of the Sophia Children's Hospital (professor H.A. Büller, professor F.W.J. Hazebroek and professor F.C. Verhulst) the developments in the past decade have only been touched upon in an epilogue, which future historians will have to expand to a more exhaustive exposition that does justice to the significance of what has been reached within the Sophia Children's Hospital in those years.

Finally I extend my gratitude to Mrs Marijke Knijnenburg-Duijvestijn, my direct link to the Association Sophia Children's Hospital; Mr Ko Hagoort, who prepared the English translation of this book; Mr Wim van Lieburg, documentalist in the Institute of Medical History; Mr Piet Smaal, photographer in Erasmus MC, whom I could appeal to time and time again, Mr Chris Geurts of Designworks who turned the manuscript and the photos into a presentable form, and Mr Peter Verhoef of Erasmus Publishing, who as coach and expert associate again was the final link to the completion of this 'memorial book Sophia Children's Hospital' project.

Rotterdam, June 2004 Professor Mart J. van Lieburg

chapter 1

Rotterdam and the care of the sick child around 1850

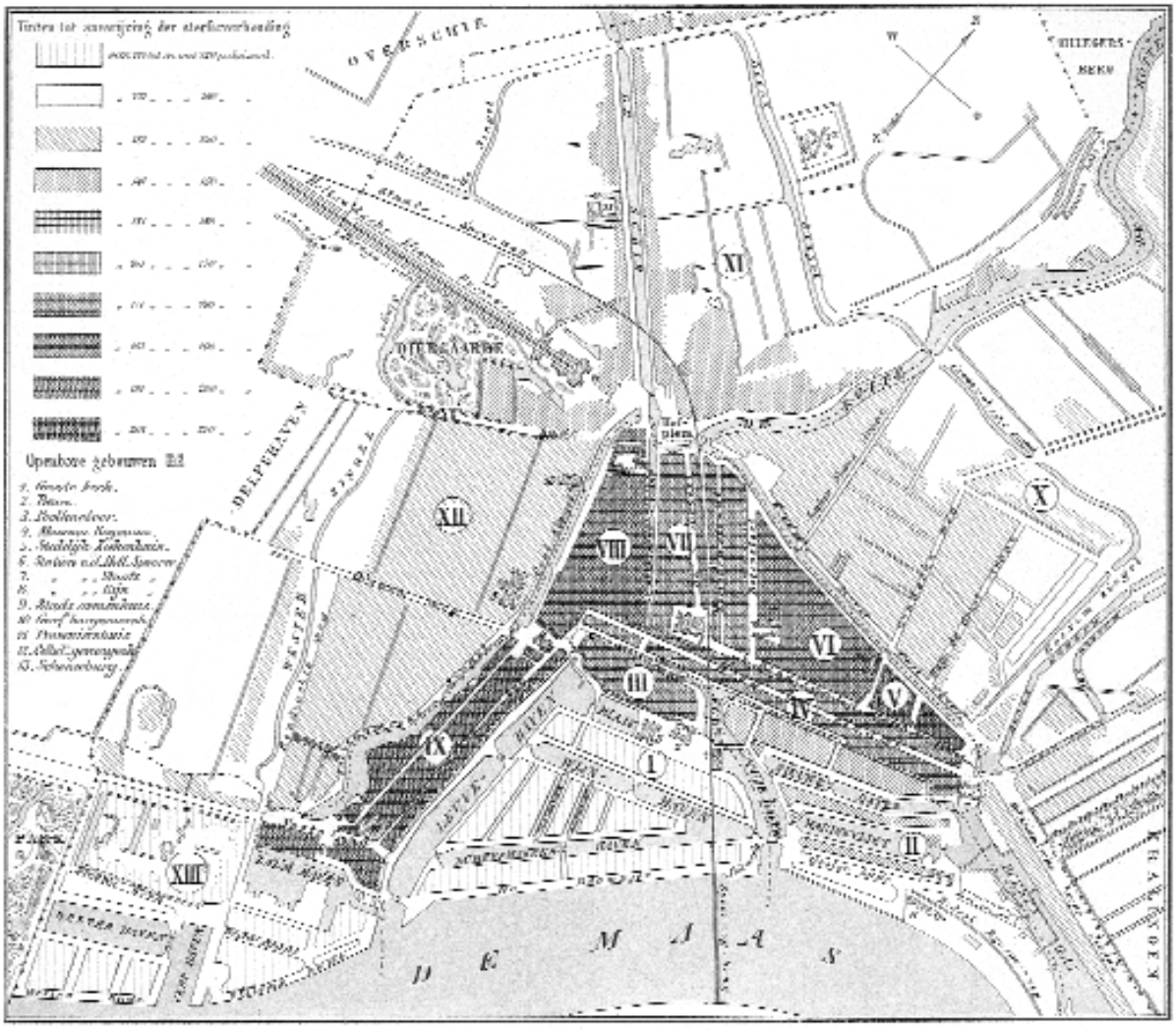
In the eyes of the aristocracy and the well-to-do middle classes, Rotterdam around the mid-nineteenth century was undoubtedly a grand city, where verve and vitality paved the way to an even brighter future. To illustrate this firm conviction, a fine album was published in 1863, depicting the most impressive and monumental buildings of the city. Measured by its historical significance, the newly opened Children's Hospital in the Hoogstraat would have deserved an entry in this work. Because of its lack of grandeur and architectural beauty it did however by no means meet the compiler's criteria. To Johan George Gleichman (1834-1906), a lawyer from The Hague who wrote the introduction to this album, the only useful criteria were economic expansion and cultural development. The tenor of his argument was set in his opening words by a reference to Lady Mary Wortley Montagu's (1689-1762) eulogy (1716) on Rotterdam's cleanliness, diligence and attractive location. Since the visit of Lady Montagu, an English writer famous among medical historians for her role in the introduction of smallpox prevention in Europe, the city had not lost any of its glory and beauty and the laudatory words were still applicable to today's situation, according to Gleichman. 'The Rotterdam of our days still bristles with life and high spirits, exuding from early morning to late evening an incomparable air of resilience, of alert activity. A comparison of poverty between this and other cities yields encouraging results, and neither in the eighteenth nor in the nineteenth century was there room among the industrious people in these busy streets for the sluggard who is too lazy to work. Elsewhere he might hang around in his idle existence, but here he runs the risk of being trampled underfoot. And though Rotterdam's location might no longer seem too expedient for trading, its trade fleet is still its pride; its warehouses are still being filled with treasures from East and West; and its stockrooms continue to testify of the prosperity of its inhabitants.'

Rotterdam on the brink of a new era

This description, in which Rotterdam managed to maintain its reputation of a neat and tidy industrious merchant town, was a rather romanticized rendering of reality. Amid the vast changes and modernizations determining the city's direction around the middle of the nineteenth century, a metamorphosis was taking place that would eventually be experienced as a breach with the past. Within a few decades, Rotterdam's population had grown from 78,000 inhabitants in 1840 to more than 106,000 in 1860: an increase of roughly 35% versus 15% nationwide. This increase was mainly caused by a population shift of migrants looking for jobs in the rapidly expanding dock industry. In view of the high mortality rates around the middle of the nineteenth century, a natural increase in population was out of the question. In particular, infant and child mortality rates were alarmingly high and climbing steeply, a trend which continued even after the overall mortality rate began to drop in the second half of the nineteenth century. About half of the total number of deaths in the 1860s were infants under the age of five years. As recently as 1890, four children under the age of one died each day in Rotterdam. Meningitis, 'bowel consumption' and all other intestinal disorders, consumption of the lungs, congenital syphilis and 'neglect and fatigue', statistically summarized under the key word paedatrophy, were the major causes of infant mortality.

The life expectancy of newborn boys around 1850 was a mere 24 years and that of newborn girls 30 years. Aged one, their life expectancy had increased to 32 and 37 years respectively, and at the age of five to 40 and 50 years. This remarkable difference between the life expectancy of boys and girls did not diminish until much later in life: around the age of sixty the life expectancy for both sexes became similar. On account of the high child mortality rate, the average size of a household with children, in spite of the high birth rate, was much lower than is commonly assumed, namely 4.1 family members in 1860 and 3.6 in 1880. Nevertheless, as municipal territory did not increase correspondingly, the population growth caused an alarming increase in population density, particularly in the old town center: the figure for 1880 was calculated at 15,336 people per square kilometer! Tens of thousands lived in deplorable conditions and passed their 'days of hunger and misery' closely packed in one and two-room dwellings, basements, back-to-backs, attics, and stables. Single-room dwellings for one family and houses with more than a hundred occupants were no exception. Hygiene was appalling. Eyewitnesses reported that in the slum areas vermin managed to 'carry away the bottom layers of the bedsteads'; bedbugs, fleas, cockroaches and rats permanently coexisted in the stinking, dark and 'grubby murderous dens', which were far too hot in the summer and unbearably cold in winter.

Around 1860, some 73% of the householders belonged to the lower working class, which included unskilled laborers, dock-workers, and street vendors. Some 14% were part of the higher category of skilled workers, to which belonged craftsmen, shopkeepers, primary school teachers, and clerks. Those who could not find a job or



In 1873, A.M. Ballot illustrated his second study on mortality distribution in Rotterdam with this map, which shows the various districts both within the old triangular-shaped town center (I-VIII) and outside of it (IX-XIII). The first children's hospital was situated in district IV, villa Belvédère in district X (corner Goudsche Weg and Crooswijksche Singel), and the new children's hospital in district XII on Westersingel. This map clearly shows that the latter two were located a long way from the center.

were unable to work, were left with no other option than a humiliating visit to the municipal, diaconal or parochial poor relief councils. In 1863, the Common Poor Relief Council – which since the introduction of the new Poor Act in 1845 was the primary body for poor relief – endowed over one thousand households with rye bread, financial support, clothing, and shoes. This category of the poor, usually dis-

dainfully referred to as the 'lumpenproletariat, the 'poor devils' or the 'fourth class', together with those who did manage to earn their daily bread yet could not afford additional services, such as health care, constituted the target group of all kinds of charities, including the hospitals and many private welfare organizations.

In the 1840s, an awareness gradually developed that the social and hygienic situation necessitated firm governmental action. In 1851, in the wake of the recently acquired rights embodied in the new constitution written by Thorbecke, the new Municipal Council began to consider issues such as the social uplifting of the 'lumpenproletariat fighting for life' and the reform of public health services. Slowly but surely, public debate about all kinds of social problems brought out the political differences between conservative and progressive parties. A good example is the much-discussed 'water project' designed by Rotterdam's town architect Willem Nicolaas Rose (1801-1877), which included within the framework of water management the construction of several wide, landscaped canals and avenues. The partial realization of this project, which had been agreed upon in 1855 after more than ten years of discussion and a new cholera epidemic, did not yet have the effect on health and hygiene that some had hoped for. Adequate improvement was not achieved until the mid-1870s, when the building of a municipal drinking water supply system and a sewerage system was started.

Notwithstanding the social and hygienic problems mentioned above, Rotterdam prospered economically in these years. Trade and shipping saw to an unprecedented intensification of harbor activities. A significant milestone in this development was the opening of the railway connection with the German hinterland in 1855, which transformed Rotterdam from merchant town to transit town. The parties concerned nervously followed the laborious governmental negotiations surrounding an improved connection with the North Sea, which eventually resulted in the early 1870s in a new waterway, the Nieuwe Waterweg. Although Rotterdam showed all the characteristics of an industrial town, industrialization in these years considerably lagged behind developments elsewhere. The expansion from provincial town to metropolis was completely dominated by the development of the harbor and all related economic activities. The flourishing cultural life clearly expressed how much the moneyed section of the population in general and the old Rotterdam aristocracy in particular profited from these developments. The opening of Museum Boijmans in 1849, the Academy of Visual Arts and Technical Sciences in 1851, a new Municipal Theatre in 1853, the laying out of the esplanade Het Park and the opening of the Rotterdam Zoo in the mid-1850s, the building of the imposing accommodation for the Rotterdam Reading Room and that of other architectonic eye-catchers, such as the new railway station and the Victoria Hotel, were considered evidence enough of the city's progress.

Medical situation and health care

Against this background, Gleichman rightly concluded in 1863 that Rotterdam was not only a city of progress, but even more a city of contrasts. Satisfaction about what had been achieved was no excuse for conceited lethargy. Much remained to be done, both by the authorities and private individuals, in numerous fields, not in the least in that of public health. 'Many a pool of stagnant and stinking water, known under the name of waterway, canal or street, has been cleared up; many a sad place where absence of light and air favored the proliferation of endemic and epidemic diseases, thanks to effective measures has been given a brighter and fresher look'. But, says Gleichman, 'there is still much to do. Instead of slowing down, one should be spurred on by strong conviction backed by science and experience, that the funds spent for this purpose by an enlightened council and by a generous spirit of private enterprise are productive to the highest degree to general welfare and to the welfare of the municipality'.

Since the days of French rule, the protection of the medical interests of the inhabitants of Rotterdam was assigned to a local committee for medical inspection, which consisted of representatives of all levels of the medical and pharmaceutical profession. Their annual visitation of the doctors of medicine, surgeons, midwives and apothecaries was aimed at monitoring the quality of medical, surgical, obstetric and pharmacological care and making improvements where possible. The committee closely followed the progress of disease patterns, particularly the outbreaks of epidemics, and reported annually to the local, provincial, and central authorities.

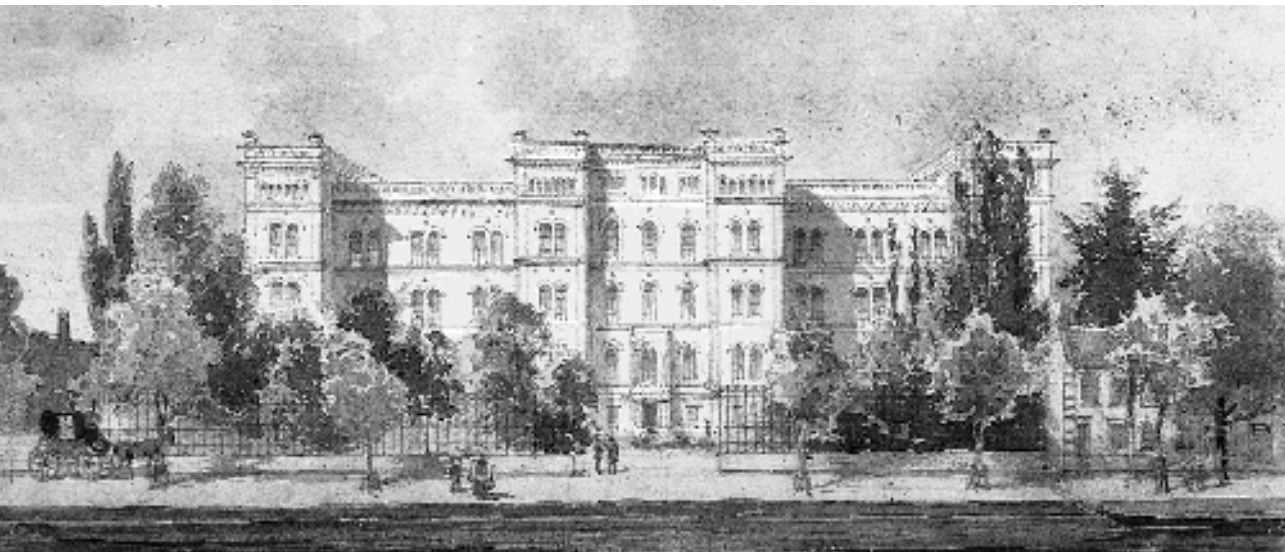
Although these 'medical police' reports were indeed very interesting, certainly from a medical-historical point of view, they failed to stimulate and steer governmental action in health care matters. The search for an effective health policy included a reorganization of the medical state inspectorate, in the 1840s the subject of a long-lasting political battle, and a rearrangement of municipal responsibilities laid down in the Municipal Corporations Act of 1851. Progressive physicians and pharmacists, the so-called hygienists, took the lead. A special role was played by the medical men in the new Municipal Council, such as the pharmacist Bartholomaeus Eickma (1812-1855), a council member in the 1850s and 1860s and alderman until 1884, and the physician Cornelis Hendrik van der Looij (1813-1895), who, as lecturer in obstetrics at the Medical School and managing director of the Rotterdam Maternity Ward, had a good service record, and authoritatively contributed to the council debates about everything pertaining to health care from 1857 to 1886.

Although a council member only later, and briefly (1872-1874), the hygienist Adrianus Marinus Ballot (1823-1874) should be mentioned here, be it only on account of his articles published in the *Dutch Journal of Medicine* in 1859 and 1873, in which he drew attention to the very poor health conditions in Rotterdam. In a list of mortality figures for fifteen large towns in the Netherlands, Rotterdam in the 1850s occupied the last place with the highest figures. Ballot's finding that the aver-

age life expectancy in the provincial town of Zwolle exceeded that of Rotterdam by fifty per cent, most probably did not leave the city councilors' sense of responsibility unmoved. According to Ballot, two main factors were responsible for Rotterdam's appalling record: the miasmas or 'foul vapors' and the polluted drinking water. In Ballot's view, the almost proverbial gastro-enteral disorders afflicting the inhabitants of Rotterdam (diarrhea was also nicknamed 'Rotterdam belly') were caused by the open sewers, the manure heaps and dung pits that could be found everywhere in town, 'the innumerable slaughterhouses … found everywhere, where entrails were sometimes exposed to the air for a long time, while blood flowed from the street into the gutters', and the strongly polluted water of the rivers Maas, Rotte, and Schie, which 'fouled by the excrement of thousands and thousands of people' served as drinking water. Referring to the results of a cholera study performed in London, Ballot was one of the first to point out the fatal influence of the use of river water on the spread of this dreaded disease. In his second contribution, Ballot concluded that the much-applauded improvements brought about by the Rotterdam Town Council had had no, or hardly any, effect on infant and child mortality. In 1870, 591 children under the age of two succumbed to paedatrophy, infirmity, anaemia, or tabes meseraica [tuberculosis of the abdomen, v.L.], 'who, representing 15% of the total mortality rate, can be thought of as the so many unripe fruits that are too weak to resist the various agents which here on earth can affect the youthful organism'.

To secure the necessary medical expertise, the Town Council decided in 1854 to install a Public Health Commission, which was broadly based and did not only consist of physicians. Alongside the local committee for medical inspection, which had lapsed into bureaucratic inertia, the Commission's special assignment was to trace and eliminate the major factors that threatened or impeded public health. Apart from the well-known themes, such as housing improvement, drinking water supply, rubbish disposal, and sewerage, the Public Health Commission also engaged in research into lesser known factors. In the early 1860s for example, they were busy analyzing air quality in school classrooms, hoping to contribute to healthy conditions in schools. They worked closely with the various municipal committees that were active in this field after the Primary Education Act came into force in 1857. The reports of the various school committees make clear that also by this route all kinds of health issues were touched upon, such as school hygiene and the chief childhood diseases that affected school attendance.

The development of intramural health care in Rotterdam fits in well with the general history of the city outlined above. Here too, an important shift can be observed around the middle of the nineteenth century, with the beginning of a new chapter in the history of Rotterdam hospitals in the 1850s and 1860s. The building of a new municipal hospital on the Coolsingel canal (which formed the western boundary of the old town), to replace the old infirmary on Hoogstraat, around 1850 set an example for other large towns in the Netherlands and even abroad. This impressive creation full of technical innovations, which brought admiration to the above-mentioned architect Mr. Rose from far beyond the country's borders, enabled the medical



The new municipal hospital on the Coolsingel canal, opened in 1851, was considered a model hospital in the middle of the nineteenth century. Although children were admitted, it did not have a separate children's department.

superintendent Jan Bastiaan Molewater (1813-1865) and the surgeon Machiel Polano (1813-1878) to create a modern hospital that was meant to function not so much as a medical-social institution, but rather as medical instrument. Under optimal circumstances, patients from all walks of life, irrespective of their social position and financial means, could profit here from the achievements of the new art of medicine based on the natural sciences. Already a few years later, the rapid progress of medical science, especially in the field of infectious diseases and bacteriology, occasioned the more critical minds – among whom the founder of the Rotterdam Children's Hospital – to rightly call the dark and stuffy corridor wards 'foyers of infection'. This did not, however, alter the new dynamics that the opening of the Coolsingel Hospital in 1851 brought to patient care in Rotterdam.

Less spectacular, though not less drastic, were the organizational changes and architectural innovations in the municipal care of the mentally ill. In these days, the Rotterdam Mental Hospital, located next to the former infirmary on Hoogstraat, not far from the place where the Children's Hospital was soon to open its doors, adopted the so-called no-restraint therapy, with all its consequences for the management of this institution. In 1855, the adjacent former infirmary was equipped to shelter and nurse 'syphilitic women' whom the Coolsingel Hospital had declared *personae non gratae*. Officially it was a special clinic for the treatment of prostitutes suffering from venereal diseases, but in fact it functioned as a repressive instrument within the framework of prostitution regulation.

Still older was the Maternity Ward, opened in 1831 in a building on Nieuwe Markt as training facility for students of obstetrics and midwifery. Despite lengthy discussion of a plan to add a maternity home to the new Coolsingel Hospital, it was eventually decided to maintain the Maternity Ward in its existing set-up. This decision was determinative of the further development of obstetric care in Rotterdam, and particularly that of infant care. When the Medical School had to close its doors in 1866, closing the Maternity Ward was also briefly considered. However, owing to persistent and spirited pleas of the above-mentioned dr. van der Looij, the Municipal Council finally agreed to continue this facility, especially in view of the necessity to shelter and nurse 'poor, homeless women'.

Shortly after the Children's Hospital was founded, an eye clinic was added to the specialist hospital facilities. In 1866, the Rotterdam ophthalmologist Jacob Hendrik de Haas (1837-1906) took the initiative to found the 'Society in aid of needy eye patients in South-Holland, established in Rotterdam', opening an outpatients' clinic for needy eye patients in an old building on Oppert Street. Three years later, following the example of his master Franciscus Cornelis Donders (1818-1889), who founded the Eye Hospital in Utrecht, dr. de Haas, set up a modest clinic for the stationary treatment of eye patients in a private house on Baan Street.

Before the expansion of the early 1890s, a Jewish hospital founded in the early nineteenth century, was the only denominational hospital in Rotterdam. In 1864, this institution moved to a big mansion on Houtlaan, which was mainly used for the care of elderly people and the nursing of the chronically ill. The same target group inspired the Congregation of the Handmaidens of the Lord in the mid-1850s to embark upon the intramural care of Roman Catholic patients. In January 1863, the Congregation was given permission to build a new, fairly monumental institution on Nieuwe Binnenweg. Five years later, the Sint-Antonius Institution opened its doors to chronically ill women and 'children of both sexes' cursed with epilepsy or mental disorders.

The rise and flourishing of specialist and denominational hospitals was mainly due to private enterprise, which also in other fields of welfare work and health care brought about significant innovations. In the wake of the Roman Catholic emancipation, the societies of Saint Vincentius (of Paulo) and of Saint Elisabeth developed their 'acts of charity', and congregations were set up that made themselves useful in education and welfare work. The revival in Protestant Christian circles paved the way for all kinds of church societies that raised funds to provide support in cash or in kind, or organized material assistance for the needy and the sick. It was, however, not until the 1870s that district nursing services, in the proper sense of the word, appeared on the scene, encouraged by the Children's Hospital. Several private organizations established facilities for special groups, such as seamen, who since 1856 were welcome in the Seamen's House, and blind people, who since 1858 were offered employment by the Association Workshop for Needy Blind.

Social and medical care for children

All these developments benefited the welfare of children either directly or indirectly. Although for the time being the medical world failed to reduce child mortality, various initiatives, especially from private individuals, were aimed at protecting and improving the livelihood and health of children. The Civic Poor Relief Board, which as a public body had been assigned the municipal care of children of needy parents, kept a low profile in these years. Children requiring care were mostly sent to charitable homes in the country or lodged with host families; only a few children (sixteen children in 1863) were admitted to the Municipal Poorhouse. However, in 1863 no less than seven orphanages were available for the care of orphans and foundlings in Rotterdam.

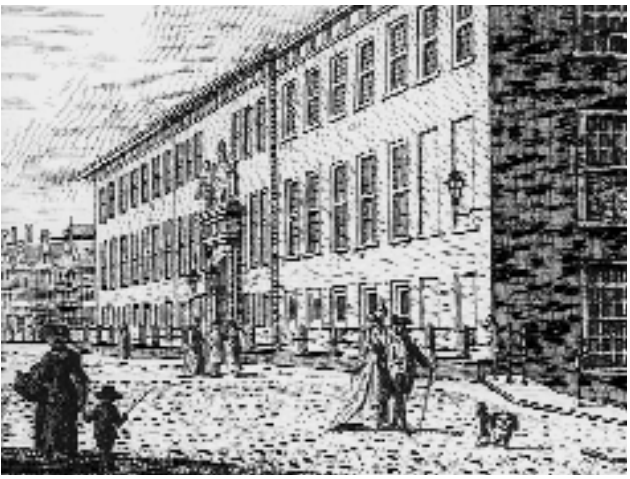
The Reformed Protestant public orphanage on Goudsche Wagenstraat had the oldest claim and was also the largest orphanage, housing some seven hundred children. Various other denominations also ran orphanages, including the Jewish and the Evangelical Lutheran communities. Among the hundreds of children in all these institutions there must have been dozens in need of special care and treatment for handicaps or diseases, but extensive historical research would be needed to document specific details. As early as in the mid-seventeenth century, the Deacon's House in Rotterdam, the predecessor of the Municipal Poorhouse, availed itself of the services of a permanently appointed orthopedic surgeon for the treatment of children with deformities, and of a lithotomist who surgically removed bladder stones in children. The history of the Reformed Protestant public orphanage shows the introduction of vaccination and the initiative to nurse children with contagious diseases in isolation, proposed by Gabriël van Charante, the orphanage's permanent physician. Of the privately run social institutions the 'Institution for Poor Children', opened in 1853 on Boezemsingel, is worth mentioning here, and so are the various Catholic institutions for the care of abandoned or neglected boys (Saint Laurentius Institution) and girls (Saint Lucia and Saint Theresia Institution). The discussion among Protestants about building a Protestant home for neglected children continued, but without result as yet; it was not until 1886 that the Reformed Church got the disposal of a Children's Home for sixty homeless children.

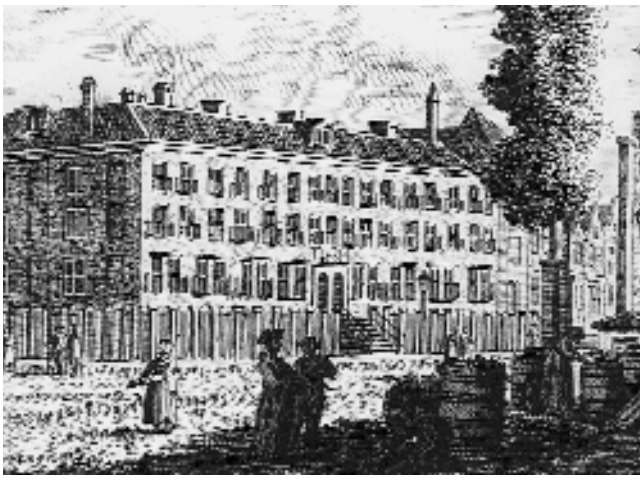
A special socio-medical task was reserved for the teachers at municipal schools for the poor, who became aware of their educational task in matters of health advice and education. Also, their school committees, the Public Health Commission or private physicians interested in school medical issues brought this task to their attention. In the 1860s, the main concern was the prevention of epidemic infectious diseases, for which a statutory regulation was not effected until 1872. In the summer of 1864, the above-mentioned ophthalmologist dr. de Haas startled the local committee for medical inspection by announcing that he had observed an alarming increase in the incidence of eye infections, 'and that he believed there were a few centers of infection, mainly in schools attended by children below the age of eight years'. Closer inspection revealed that ten percent of the five thousand children

attending municipal schools were infected with conjunctivitis (vesiculosa mucipara or mucopurulenta) so severely that they had to be kept away from school for a shorter or longer period. This situation forced the Town Council to assign in the very same year the medical supervision of the pupils in the various municipal schools to the physicians and surgeons of the Poor Relief Board. Around the middle of the nineteenth century, special education was limited to some national institutions for blind and deaf and dumb children. Thanks to the efforts of Machiel Polano, the above-mentioned surgeon of the Coolsingel Hospital, who himself had two deaf and dumb children, Rotterdam acquired its own 'institution for the teaching of the deaf and dumb' in 1853, where a teaching method was in use that differed from the educational techniques at the national institution for the deaf and dumb in Groningen. Finally, it is noteworthy that the Municipal Laundry and Baths was founded in 1857, although this institution was of a different nature than the other social institutions mentioned above. It aimed at improving the personal cleanliness and hygiene of the poor and needy and enabling children to bathe and swim in clean water.

Outside the mentioned social institutions, sick children could be found in the most appalling conditions, sharing bedsteads with four or five healthy brothers and sisters, covered with – as expressed by a newspaper from those days – 'a complete collection of discarded sacks and grimy-gruesome rags' and without proper nursing, let alone adequate medical care. They were admitted to the municipal hospital only when absolutely necessary. During 1857-1866, an average of 66 children were admitted each year, who were hospitalized for an average of almost forty days; the total number of hospital days of children constituted some 3.5 per cent of the hospital days of all patients in the Coolsingel Hospital. Upon admittance, children were divided over the men's and women's wards according to their sex, though infants and children under the age of ten or eleven went to the women's wards. A separate children's department was what the medical superintendent Molewater dreamed of, but for the time being this wish was not granted. In the mid-1850s, most children admitted suffered from skin diseases, notably scabies. These children previously attended the Leper House as outpatients. Among the patients of the Hospital for Syphilitic Women were also children (about 25 per year on average), but these were mainly children born in that hospital and 'healthy' infants and young children admitted together with their mothers. Children classified under the broad meaning of the term 'insanity' could be admitted to the Mental Hospital. In 1863, dr. Gerard Vrolik (1824-1882) reported the admittance (together with his mother) of a ten-year-old boy who was supposed to be mad, but after partaking of 'nourishing food to which some grains of quinine sulfate were added daily' fully recovered in a short time, apart from his 'invincible loathing' of his mother.

Needy and ailing children not placed in one of the social and medical institutions shared in the general extramural health care that was common around the middle of the nineteenth century. Poor people received care from the doctors of medicine and surgeons engaged by the Poor Relief Board; patients who were members of one





Pictures of the Reformed Protestant public orphanage (left) and the Deacon's House (right) in Rotterdam, depicting the eighteenth century situation.

of the sickness funds were attended to by the physicians or surgeons affiliated to these sickness funds, whereas the higher classes could choose from the rich assortment of medical professionals active in Rotterdam. There was no pediatric specialization at the time, although there were physicians who more than others were involved in the care of children or who showed a special interest in childhood diseases. Apart from the founder of the Children's Hospital and the physicians connected to the aforementioned institutions for the care and nursing of children, most worthy of mention are the physicians and surgeons of the Society for the Advancement of Cowpox

Children from the Reformed Protestant public orphanage in Rotterdam, mid-nineteenth century.

This picture expressively shows the intramural care for children around the middle of the nineteenth century: children are sharing a ward with adults, often without any chance of recovery.

Vaccination, under the motto '*Ne pestis intret vigila*' (Be on guard, lest the plague should enter)'. They advocated the prevention of smallpox and during the sessions of the Society came into contact with the hundreds of children who yearly passed by in order to be vaccinated.

Looking back to the developments in local health care and particularly in the local hospital system, the initiative to establish a children's hospital seems to be in close keeping with it. Such an initiative was bound to emerge in the rapidly expanding harbor town where the ruling class became more and more convinced of the necessity of taking measures to abolish social wrongs and to improve the welfare and health of its inhabitants, and certainly that of children as well. Moreover, both private individuals and privately sponsored organizations became conscious of their social responsibility towards the poor and infirm. Examples from elsewhere, however, were the main source of inspiration for the founding of a children's hospital.

chapter 2

The Children's Hospital: foundation and first years 1863-1878

The health authorities in Rotterdam judged 1863 an 'unusually bad year', because of the number of people who fell ill and the gravity of their diseases. The Local Board for Medical Inspection mentioned in its annual report for 1863 that Rotterdam had been struck by an adverse turn in the *constitutio epidemica*, namely from 'catarrhal-rheumatic' to 'gastric-bilious', associated with an epidemic upsurge of measles, an outbreak of smallpox in a nursery school, and 'a fairly widespread' whooping cough epidemic. Infant mortality reached a historical level in this year: 59% of all deaths were children under five. Under these circumstances, and taking into consideration the changes in the Rotterdam hospital system described in the preceding chapter, the need of a separate institution for the nursing of sick children, as described earlier in the pediatric literature and already flourishing in other countries for decades, was felt more strongly than ever.

The development of pediatrics in the Netherlands

Pediatrics as a specialty did in fact not develop until in the course of the twentieth century. An extensive body of literature about childhood diseases nevertheless existed, and a number of physicians took special interest in pediatric problems, although no medical practices specializing in sick children had yet emerged. The concept of pediatrics was still mainly determined by age criteria and not, or hardly, by the notion that the child's organism on account of its growth and development essentially differs from the mature one.

Medical practitioners, either university-educated or belonging to the category of non-university officers, only incidentally learned a few things about childhood dis-

eases during their training period. Those wishing to improve their pediatric knowledge had to resort to textbooks from abroad, many of which meanwhile had been translated into Dutch. Apart from the relatively old *Handleiding tot de kennis en geneezing van de ziekten der kinderen* (*Handbook for the knowledge and treatment of the diseases of children*) (1768) by Nils Rosén van Rosenstein (1707-1773), they included the pediatric reference books and textbooks by various German physicians, among whom Adolf Henke (1775-1843), Johann Jörg (1779-1856) and Friedrich Meissner (1796-1860), and by the British pediatricians James Milman Coley (1784-1867) and Charles West (1816-1898). One year before the opening of the Children's Hospital in Rotterdam this category of literature had been enriched by the translation of the extensive *Lehrbuch der Kinderheilkunde* (*Textbook of Pediatrics*) by Alfred Vogel (1829-1890). Moreover, pediatrics as a separate discipline or area for special attention had meanwhile gained a place among the Dutch medical journals by the publication of the *Nederlands tijdschrift voor (heel-) en verloskunde, ziekten der vrouwen en der kinderen* (*Dutch Journal of Surgery and Obstetrics, Diseases of Women and Children*), edited by the obstetrician Hendrik Jan Broers (1815-1876) from Utrecht.

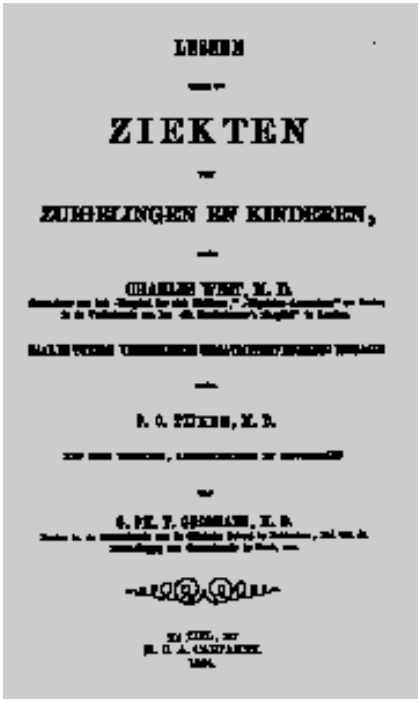
Next to this specialist literature, a category of more popular works had gradually developed. A good example is the book by the German physician Cristoph Wilhelm Hufeland (1762-1836), which under the title *Goede raad aan moeders over de gewigtigste onderwerpen van de natuurlijke opvoeding der kinderen in de eerste levensjaaren* (*Good advice to mothers about the most essential questions concerning the natural upbringing of children in the first years of life*) (1800) run to several reprints. Of Dutch origin was the work published in 1845 by the Amsterdam physician Gerald Arnold Nicolaas Allebé (1810-1892) about *De ontwikkeling van het kind naar ligchaem en geest* (*The development of the child in body and mind*), which was reprinted for the seventh time as late as in 1896. Special mention deserves the hygienist Herman van Capelle (1835-1890), not only for his work *Leven en gezond zijn* (*Living and being healthy*) (1857), which was intended as a 'popular book for school and family', but especially for the brochure in which he – just one year after the opening of the Rotterdam Children's Hospital! – dealt with the question *Hoe moeten wij onze kinderen verplegen?* (*How to nurse our children?*) (1864). In addition to these general works, extensive literature on particular pediatric themes was available around 1860. The authors and titles of all these writings are irrelevant here, but the list gives a good impression of the most important issues in the daily practice of pediatrics and pediatric surgery. It had been known for some time that nutrition played an important part in the development of childhood diseases; now this knowledge was being given a scientific basis. Owing to continuing demographic studies and the application of statistics in health research, as performed by Ballot in his two articles mentioned in the preceding chapter, infant and child mortality became a subject of interest in the social and political debate. Both health and governmental authorities began to consider the schools as an excuse for medical involvement in children's health conditions. Apart from publications about somatic problems, such as eye diseases, adenoid vegetations and postural and skeletal deformations, the first

specialist publications about child psychology and psychiatrics appeared. A physician regularly consulting the professional literature would come across extensive discussions on the diagnostics, therapy and prevention of, in particular, infantile eczema, noma, meningitis, rickets, the various epidemic-infectious diseases of infancy, tuberculosis, and scrofulosis.

Physicians from Rotterdam, too, have contributed to the development of pediatrics. The Dutch version and the annotation of the well-known two-volume handbook by Friedrich Meissner, published in 1846-1847 under the title *De ziekten der kinderen. Een handboek voor praktiserende geneesheren* (*The diseases of children. A handbook for medical practitioners*) was the work of Michaël Jacobus Godefroi (1819-1895), a prominent medical man from 's-Hertogenbosch, and Samuël Bezeth (1819-1874), who had a large medical practice as a poor-doctor in Rotterdam. We know Bezeth especially through his numerous contributions to the periodical medical press about (animal) vaccination. Of interest from a historical point of view is his paper on 'deficient distension of the pulmonary alveoli in live newborns (analectasis pulmonum)'.

One of the Rotterdam proto-specialists in pediatrics is George Philippe Frederick Groshans (1814-1874), who since 1840 lectured at the Rotterdam Medical School, a non-academic institution for the training of country- and town surgeons, midwives, pharmacists, and chemists. Dr. Groshans' enthusiasm and keen interest in all matters that might improve medical education resulted around 1850 in a curriculum broadened with various new subjects, including pediatrics. For example, in his educational reports, he mentioned having discussed with his students 'the peculiarities which in diseases of infancy and childhood originate from the special state of their workings', words that demonstrate that dr. Groshans stands at the birth of modern pediatrics. To support his teaching in pediatrics, dr. Groshans in 1854 took the initiative to publish West's well-known *Lectures on the diseases of infancy and childhood* (1848) in a Dutch translation, adding 'an introduction, notes, and supplements'. This book gives a good impression of the knowledge at the disposal of the physicians and surgeons active in the first years of the Rotterdam Children's Hospital and of the diagnostic procedures and therapies common in pediatric practice in these years. Bleeding, purging, and the administration of enemas are still much-used remedies in West's *Lectures*, if necessary modified by the use of leeches and medicines that today are counted among the 'heroica' or toxins, such as opium and mercury.

Notwithstanding the fact that the medical views of Charles West were known to students who had obtained their medical degree in Rotterdam and to the medical practitioners who had read his *Lectures* in the original or in translation, West's initiative to found the 'Hospital for Sick Children' (1852) on Great Ormond Street in London was as yet not taken up in the Netherlands. The institution of children's hospitals elsewhere in Europe, begun with the transformation of the Maison Nationale des Orphelines in Paris into a children's hospital, and continued by the opening of children's hospitals in, among other places, Saint Petersburg (1843), Vienna (1837), Budapest (1839), Moscow (1842), Prague (1842), Turin (1843), Berlin



Dr. G.Ph.F. Groshans, lecturer at the Rotterdam Medical School (left). In his lectures on pediatrics, which he started in 1850, he used Charles West's textbook (right). In 1854, dr. Groshans adapted the Dutch translation of this textbook, attuning it to the situation in the Netherlands.

(1843), Copenhagen (1845), and Constantinople (1847), had neither led to any initiative among the Dutch medical profession. However, the developments abroad did not go by unnoticed, as is evident from a contribution to the liberal journal *Wenken en meeningen omtrent geneeskundige staatsregeling en algemeene geneeskunde* (*Suggestions and opinions on governmental health regulation and general medicine*) written by the above-mentioned surgeon Polano in 1838. Dr. Polano alerted the government to its duty 'to protect the welfare of the future generation' and said it was high time 'to fill this need in our country as well: that, provided that it should be impossible to set up special institutions to this aim, measures must be taken at least to ensure that the fragile child will get the care that is best suited to its condition in a special department of a general hospital'.

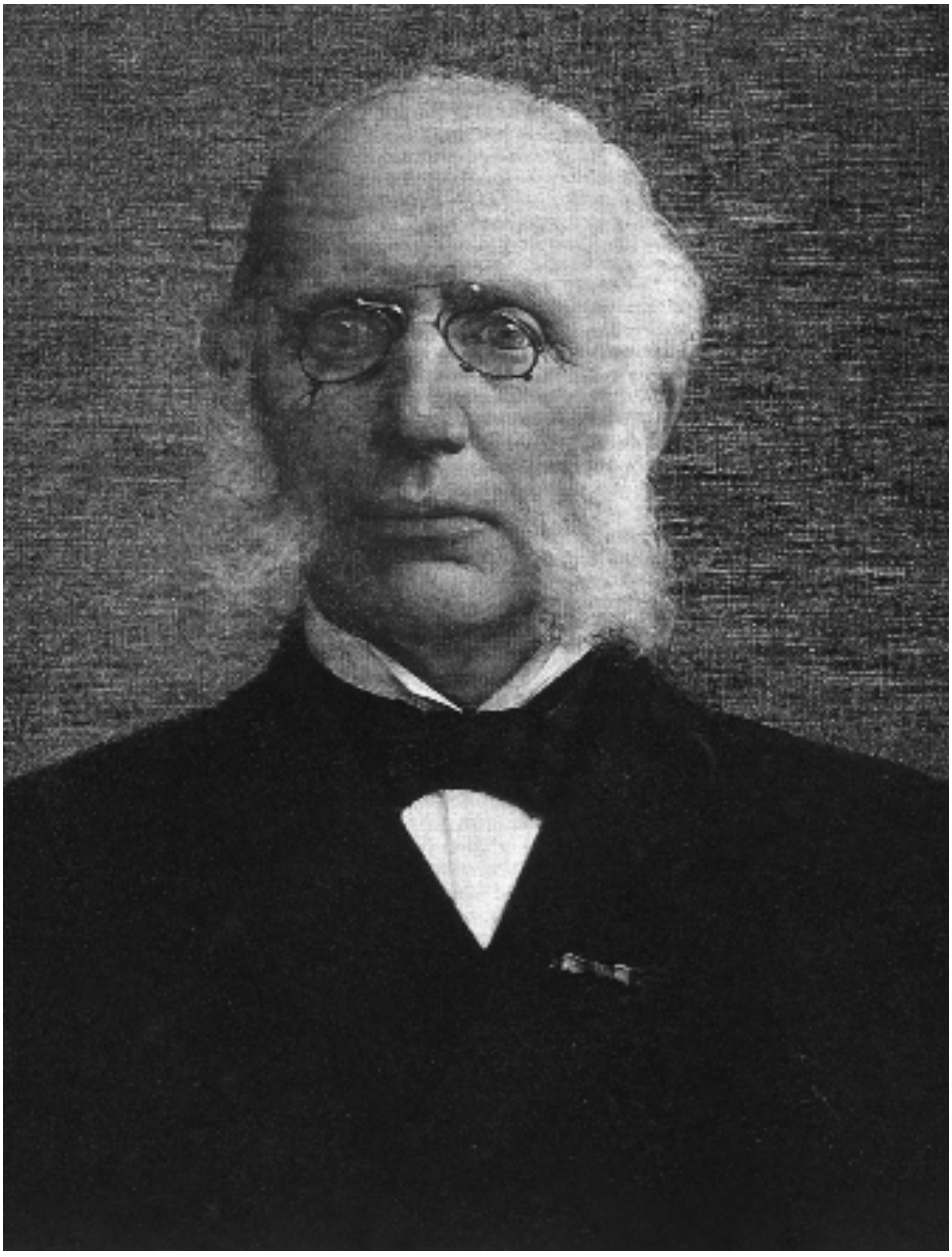
The initiative and the initiators

At the end of 1862, a number of local dignitaries, presided over by the Rotterdam physician Hendrik Willem de Monchy (1830-1905), assembled with the purpose of

'examining, in imitation of foreign countries, the feasibility of a hospital exclusively for the care of sick children'. Unfortunately, this meeting's minutes and other documents on the basis of which the earliest history of the Children's Hospital in Rotterdam could have been reconstructed, are lacking. What is known about the earliest beginnings, is derived from recollections published on the occasions of later anniversaries of the hospital, and especially from a brochure (*Het Kinder-Ziekenhuis te Rotterdam*) written by dr. de Monchy, which in 1864 circulated among the well-to-do in order to raise money for the exploitation of the new institution.

Dr. de Monchy, the instigator of the Children's Hospital in Rotterdam, was born on 18 June 1830 in a renowned patrician family that had also played an important part in local health care. His great-grandfather was Salomon de Monchy (1739-1794), an authority on military and ship's medicine, professor of medicine in the Illustere School in Rotterdam, and famous in the history of pediatrics as one of the first in the Netherlands to inoculate his own children with smallpox virus. After taking his finals at the Erasmiaans Gymnasium, Hendrik Willem was enrolled as medical student at Leyden University. He attended lectures given by, among others, professor Cornelis Pruys van der Hoeven (1792-1871) and concluded his study on 20 November 1855 with the defense of a neurological thesis concerning five observations of paresis of the hands, which had been researched in the Coolsingel Hospital. In the following year, a study tour in the company of some friends took him to Vienna, where he attended lectures by the leading figures from the Vienna clinic and was also introduced to the pediatric clinic run by professor Alois Bednar (1816-1888), whose four-volume pediatric handbook had been published in 1853 in a Dutch translation under the title *De ziekten der pasgeborenen en zuigelingen uit een klinisch en ontleedkundig standpunt* (*The diseases of newborns and infants from a clinical and anatomical point of view*). Unfortunately, we have no information about the continuation of the trip to Paris, and, therefore, the question whether dr. de Monchy might have visited the Hôpital des enfants malades remains unanswered. Having returned to the Netherlands, he obtained his qualification for surgery and obstetrics by taking his *Artis obstetriciae et chirurgiae doctor* degree, and then settled in his native town.

Dr. de Monchy is described as an amiable man with a strong social conscience, always making plans, defending them and taking them up with unflagging enthusiasm and especially with unprecedented optimism. It is to these characteristics that the Children's Hospital in Rotterdam owes not only its conception, but also its growth until dr. de Monchy's death on 21 February 1905. All these years he was active in the Children's Hospital as honorary medical superintendent. Besides, he remained engaged in his large private practice, acted as physician to the 'Merchant's Clerks Association Mercurius', and filled various executive positions in local institutions. In 1892, dr. de Monchy stood at the cradle of the Dutch Pediatric Association. For years he was the pivot of this association, contributing greatly to the recognition of pediatrics as a medical specialty. Noteworthy in this respect is dr. de Monchy's plea to achieve 'official recognition of pediatrics, which I [dr. de Monchy, v.L.] under-



Dr. H.W. de Monchy: founder of the children's hospital in Rotterdam, promoter of the pediatric specialty in the Netherlands and advocate of child nursing as a discipline of its own.

stand as the establishment of a special chair for the teaching of pediatrics as a theoretical and examination subject, with the necessary aids for tuition'. Hence, the Dutch Pediatric Association submitted a petition to the government, which eventually in 1902 led to the appointment of Gabbe Foppe Scheltema (1864-1951) as the first (extraordinary) professor of pediatrics in the State University of Groningen.

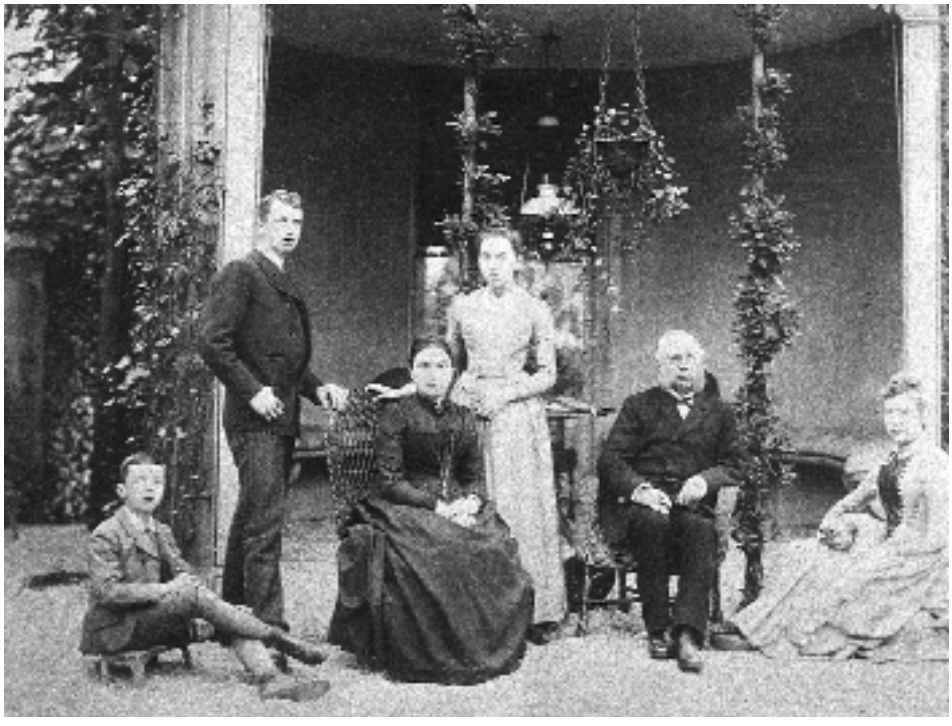
Dr. de Monchy's close colleague and cofounder of the Children's Hospital was the surgeon Jan van der Hoeven (1834-1900). He, too, came from a prominent Rotterdam family, various members of which had played an important part in medical and natural-scientific fields. Dr. van der Hoeven was born on 15 February 1834, educated at the Leyden gymnasium, and attended medical classes at Leyden University, where his uncle Pruys van der Hoeven had a leading position in the Medical School and his father Jan van der Hoeven (1802-1868) was a professor of natural history, anthropology and comparative anatomy in the Faculty of Mathematics and Physics. The friendship between dr. van der Hoeven and dr. de Monchy dates from these years of study. During the cholera epidemic of 1855 they both assisted in a temporary hospital in Rotterdam reserved for the care of cholera patients. Two years later Van der Hoeven took his doctoral degree by defending a thesis about ectopic pregnancy (*About graviditas extrauterina*), which apparently had great scientific merit, because shortly afterwards it was also published in a German translation. His education was concluded in 1858 with a supplementary promotion on theses, first in surgery and subsequently in obstetrics. After a study tour to Göttingen and Vienna, dr. van der Hoeven settled in Rotterdam in 1859. Gradually building up his surgical practice, he was initially able to do scientific work as well, which, among other things, resulted in the translation of the *Contributions to the pathology and practice of surgery* (1848) by the famous Scottish surgeon James Syme (1799-1870).

At the end of 1862, dr. de Monchy and dr. van der Hoeven managed to get five other representatives of the Rotterdam upper classes round the table in order to examine more closely the plan to institute a children's hospital. They were Salomon Jean Réné de Monchy (1824-1917), a partner in the shipbroker's firm *Pakhuismeesteren*; Pieter van Oordt (1823-1883), a member of a family traditionally active in sugar refinery, and, as a deacon of the Reformed congregation, regent of the Congregation Members' Home for a long time; Gualtherus Hendrik Mees (1836-1912), the inspirator of the 'Public Coffee Houses' and later governor of the East African Company; Joost van Vollenhoven Jr. (1814-1889), alderman of municipal works and from 1866 to 1881 Mayor of Rotterdam; and Abraham Adriaan Reepmaker (1822-1880), a notary public. In contrast to, for example, the founding of the Eye Hospital, relatively few Rotterdam physicians were involved in the foundation of the Children's Hospital. Undoubtedly, many colleagues of dr. de Monchy and dr. van der Hoeven backed up the initiative without being on the founding committee, such as the above-mentioned Samuel Bezeth, who crowned his sympathy for the Children's Hospital by bequeathing it his medical library. The minority interest of physicians in the founding committee underlines once more that this was emphatically a philanthropic initia-

tive rather than a medical one, as dr. de Monchy himself also contended in detail in his brochure *Het Kinder-Ziekenhuis te Rotterdam* (*The Children's Hospital in Rotterdam*). The founders considered the Children's Hospital part of the poor relief service. This meant that, strategically speaking, they did not wish to compete with the Coolsingel Hospital, which indeed wanted to stress its distinctive features as a medical institution.

The brochure *Het Kinder-Ziekenhuis* (*The Children's Hospital*) provides the arguments with which dr. de Monchy and his associates in the early 1860s defended the foundation of a children's hospital. It also illustrates the objections raised against this initiative. After observing that indeed more than once voices had been raised in the Netherlands that children should be nursed in separate institutions, while at the same time 'no one has seriously attempted to call into being a children's hospital', dr. de Monchy quotes the *Beschreibung sämmtlicher Kinderheilanstalten in Europa* (*Description of all children's hospitals in Europe*) (1849) by the Viennese pediatrician Franz Seraph Hügel (1848-1876) 'as evidence of the inadequacy of the nursing of children in the dwellings of their parents'. The houses of the poor were commonly 'so small, low of ceiling, dark, clammy and overpopulated, that living there is bound to be harmful to healthy people and consequently most unwholesome to the sick'. Poverty

Dr. H.W. de Monchy and his family. Second from the left is the future medical director of the Sophia Children's Hospital, dr. L.B. de Monchy.



Dr. Jan van der Hoeven Sr. (left), cofounder of the Sophia Children's Hospital and active there as a surgeon from 1863 to 1890. On the right his son of the same name, who succeeded him in 1890. Dr. van der Hoeven Jr. briefly held the position of director in the years 1905-1906.

forced many mothers to make a living outside the house, and therefore they were not able to nurse their sick children and provide them with what they needed. Special food, adequate heating and nursing gear were beyond the means of poor parents, and what they could offer as 'berth and bedding' was usually harmful rather than useful on account of its un-cleanliness. Bedding five children in one room or one bedbox, of course, was not the way to reduce the risk of infection. And even, thus concluded dr. de Monchy his paraphrase, 'where none of these unfavorable conditions are present, domestic nursing is still often inadequate, because it requires too much practice and skill for mothers from the lowest classes of society to be performed properly'. Dr. de Monchy parried the objection that a mother, upon admittance of her child in a children's hospital, was bound to fail in her duty of providing care and attendance, by referring to the rise of nursery schools, which also were intended 'to relieve the parents of a task that in the first place lies with themselves'. Considering the great attention dr. de Monchy paid to this ethical-emotional objection, it was apparently of great importance. 'Only the unnatural, unmarried mother will be found inclined to hand over her offspring to strangers', it was reasoned; 'the poor though honest woman, who truly loves her children, will sooner watch them perish from privation than leave them in your care'. Children's hospitals were bound to 'recklessly' break off the fragile mother-child relationships and thus 'do incalculable harm to society'. Contrary to these arguments, dr. de Monchy

Three cofounders of the Children's Hospital in Rotterdam: from left to right S.J.R. de Monchy, P. van Oordt, and G. Mees, all representatives of the Rotterdam aristocracy, which provided funds to set up the Children's Hospital.

approvingly quoted the German pediatrician August von Hauner (1811-1884), who in the first volume of his *Beitragen zur Pädiatrik* (*Contributions to pediatrics*) (1863) had refuted this objection in particular on the basis of his experiences as superintendent of München Children's Hospital. Liberal visiting hours helped to prevent alienation between parents and children. From his own observation dr. de Monchy knew that the children experienced visiting hours as a time of great joy, 'and the infinitely better they may be off with us than at home, the happier they may feel in our institution, yet they all, when they are discharged after recovery, return cheerfully and gladsome to the parental home'.

The success of the campaign that dr. de Monchy had started among the well-to-do to strengthen the financial basis of the Children's Hospital, depended also on the answer to the question why Coolsingel Hospital, which as status symbol of the Town Council took up much of the general funds produced by the small upper class, could not deal with the demand for child care. From a medical point of view, the municipal hospital was, of course, above reproach, but it was unfit to attend to sick children according to the standards upheld by dr. de Monchy and his friends. 'Experience has taught us how harmful it is to nurse children and adults in the same wards, putting them continuously into contact with each other', he argued. Children needed special care, doing justice to childlike aspects. Such expert child care could not be provided in Coolsingel Hospital, not to mention the fact that the hospital lacked room for the required sixty to eighty beds.

Finally, dr. de Monchy entered at length into the question of whether the found-

ing of a children's hospital should really be a private enterprise. His confirmative answer stemmed from his fear that, as a municipal institution, it would be placed under the regime of the Poor Relief Act. The Poor Relief Council necessarily had to restrict itself to 'the absolutely inevitable'. Furthermore, the application of the refunding system made it virtually impossible to take care of children who did not live in Rotterdam. In addition, the current poor relief system did not allow for preventive measures against poverty. And it was just this kind of prevention, according to dr. de Monchy, which was the singular domain of a children's hospital. 'It is a remedy, and even a very strong remedy to fight pauperism. The children admitted to such a home must both in body and in mind be taken care of and raised. A sound mind in a sound body, behold what one should attempt to give them. Should we truly desire to reach this aim, the provision of care should not be limited within narrow bounds. The hospital days of the sick child ought not to be counted scrupulously; the doctor must be at liberty, even if the proper disease proper has abated, to keep the youthful patient a little longer under his supervision, in order that it is not immediately exposed again to the harmful influences from which it had been withdrawn with so much effort'. Therefore, Rotterdam Children's Hospital had to display itself 'with the inscription, which is worthy only of a city like ours: *Opgerigt en in stand gehouden uit de bijdragen van particulieren* (Founded and maintained through the contributions of private individuals)'.

Dr. de Monchy's arguments were weighty and a facility for child care was seriously needed, but a children's hospital could only be founded when the necessary starting capital was available. Twelve thousand guilders were thought necessary to run fifty beds, an amount of money that had to be fully produced by the seven initiators. At this stage, they did not wish to appeal to the Town Council and financial support from third parties could not be expected until the public had been won over to their ambition. On 1 May 1863, after six months' mature consideration, dr. de Monchy and his associates made the historical decision to set up the first children's hospital in the Netherlands.

From Hoogstraat to Belvédère

Carrying out their resolution to found a children's hospital, the board was faced with several problems. Suitable accommodation was obviously hard to find in a town troubled by chronic lack of living space. For reasons of accessibility, the board definitely opted for a location in the town center, although particularly in this area the shortage of room was most acute and it would be hard to bring the hygienic conditions and sanitary facilities on the required hospital level. The accommodation that, in spite of the substantial rent of Dfl. 700 per year – the yearly wages of a servant in those days –, was eventually chosen and equipped as a children's hospital, did in no way meet the requirements for a medical institution. Among these requirements were a spacious setting with free access of light and air, dry soil, and

situated far away from all sources of air pollution, such as stagnant or sluggish water and stench-producing industry. The premises involved was an apartment on Hoogstraat, over Schmidt & Co's furniture trade at number 68, and backing onto Boerensteiger canal, once praised as part of 'the Venice of Rotterdam', but now deteriorated into a stinking canal 'which smelled nasty and where rats were splashing'. The adjacent house to the left, on the corner of Spaandersteeg, housed a grain agent and a trader in stockfish and fish oil. In the section at the right side (up to Croezensteeg), the famous transport agency Van Gend & Loos had established its Rotterdam branch. The whole entourage was still reminiscent of the picture evoked by the literary character Klaartje Donze in Nicolaas Beets's *Camera Obscura* (1840), who had aptly formulated her disappointment about the Hoogstraat by exclaiming: 'the dark Hoogstraat ... which, on the testimony of its earliest inhabitants, had never seen the sun'. The street was far too narrow for its combined function of shopping street and thoroughfare; too narrow even to enable a photographer to take a picture of the house at number 68. Horse-carts running in front and behind the house made a deafening noise from early morning to late evening. These sounds having faded away, the tumult of fun-seeking citizens and drink-loving paupers began to rise from the coffee houses and pubs. In the course of the nineteenth century, 'the fashionable Hoogstraat' became the center of an 'incoherent cluster of houses, as if accidentally thrown down, with narrow alleys, caverns for all kinds of crimes, cesspits of impurity'. The redevelopment of the old city center, which restored Hoogstraat's reputation as a shopping promenade and in the course of which canals such as the Boerensteiger were filled in, did not take place until after the turn of the century, long after the children's hospital had moved to a new accommodation elsewhere in town.

Although the location was far from ideal, the then correspondent of the local newspaper *Rotterdamsche Courant* described it as 'a sweet little home, furnished in truly Dutch style'. After mounting the narrow wooden stairs behind the door next to the large shop-window, the visitor landed in 'an airy corridor' that opened on two small wards, a 'sizeable kitchen', and a lavatory. The upper floor contained the servant's quarters. The two wards, of which it was emphatically reported that they had good ventilation, were furnished as simply as possible, so that anyone who 'was to enter the institution would be automatically compelled to come down to the low level of childlike nature, even childishness'.

When on 12 August 1863 a sign was put up next to the door, which informed the observant passer-by that the 'Children's Hospital' was established here, and the first patients were admitted, it was already a foregone conclusion that this was only a temporary accommodation, to be replaced by a better one as soon as possible. In fact it was a pilot project, intended to demonstrate that also in a town like Rotterdam a children's hospital had a right to exist. With some effort, the eight beds could quickly be increased to eleven, by adding three 'cribs' to one of both rooms. Yet this location could impossibly accommodate the calculated necessary sixty to eighty beds. A separate ward for patients with infectious diseases, separate nursing of boys

Hoogstraat at the close of the nineteenth century. Although the first location of the Children's Hospital – somewhat further down the street (at the right side) – is not shown, the horizontal partition of the fronts (shop downstairs, living quarters upstairs) gives a good impression of what it must have looked like.

and girls and a demarcation between a medical and a surgical department were also entirely out of the question. The children could not be offered fresh air, sunlight, and room to move. However, Mr. van Oordt, one of the cofounders, who lived somewhat further down the road, put his 'garden with children's toys' at the disposal of the Children's Hospital, which filled this deficiency to some extent.

Already in 1866, the board began to cast covetous eyes on the former residence of Jan Rudolf Mees (1755-1839). It concerned a splendid villa called 'Belvédère', situated east of the city center, surrounded by a beautiful garden, complete with pond, summer house and menagerie, a vegetable garden, and a patch of woodland. Around 1860, the local authorities included the area around Belvédère in a new development plan, and in 1864 the municipality became the owner of the complex for Dfl. 54,000.

Watercolor by F.M. Netscher showing the view on the river Rotte from Rubroek House near Crooswijk in 1823. Villa Belvédère is visible in the background left.

As long as the development plan was under construction, Villa Belvédère could be rented for the modest sum of Dfl. 500 per annum. First of all, the move to Belvédère would, therefore, save on running costs. Moreover, the location would conform to the standards for an institution intended to nurse sick children: there was plenty of light and air, a large garden, 'so vital to most of the patients', the building itself allowed for a better division of the beds, and there was even room to equip a play-room or 'facility to isolate the convalescents, those who need no longer be attended to in the wards'. Finally, there was room for sixteen beds in Belvédère, five more than in the Hoogstraat establishment. A major drawback, however, was the location out of the center, at the edge of town, which might well reduce the frequency of parental visits, so highly valued for reasons discussed above. Also, it remained to be seen whether the number of visits to the outpatient department would not decrease dramatically. The facts were soon to belie the pessimistic expectations. Eventually, it even became inevitable to curb the flood of patients to the outpatient department, which was more than a little stimulated by the issuing of free medicines.

On 1 May 1866, Belvédère had its change of use. In order to facilitate the removal, as many children as possible had been discharged and the number of admittances in the first months of that year had been minimized. Once the hospital was in full operation again, it soon became clear that the new accommodation, too, could not meet the demand for growth. Even after the capacity had been increased to eighteen beds in 1868, the number of requested admissions by far exceeded the capacity. Both clinical admittance, the rush on the outpatient department, and the extra facilities for examination and treatment had to be controlled within the narrow bounds of financial resources and existing accommodation. Moreover, Belvédère offered no

room for extension of nursing staff housing facilities, which was pressingly needed to improve nursing care. Under these circumstances, the feasibility of a newly-built hospital came up for discussion several times, but again and again these plans could not be carried through for financial reasons.

A combination of growing self-assurance, a broadening of the financial basis and a growing feeling of oppression within the walls of Belvédère gradually changed the outlook for a new building. Moreover, in April 1870 it became known that the tenancy of the villa would be terminated in the near future, as the municipality wanted to demolish it for the purpose of housing development. In 1874, the board deemed the time ripe to build a new hospital.

Organization and finances

The ideal set up and organization of a children's hospital, as dr. de Monchy had in mind on the basis of Hügel's *Beschreibung sämmtlicher Kinderheilanstalten in Europa (Description of all children hospitals in Europe)*, could only be partly realized, as everyday practice during the pioneering stage of the Rotterdam Children's Hospital proved. The first fifteen years, from the opening of the Hoogstraat hospital (August 1863) to the occupation of the newly-built Westersingel hospital (April 1878), remained a period of development, of searching for the right shape and the boundaries of the possible and the practicable.

The changeover from founding committee to legal association marked a major step in this development. On 1 May 1865, the Vereeniging Het Kinder-Ziekenhuis (Assocation The Children's Hospital) came into being, and the articles of association were decreed on 16 October of the same year. The association's official aim was described as 'the admittance and nursing in appropriate rooms of sick children who owing to the domestic circumstances of their parents or relatives, or owing to the nature of their disease cannot be properly attended to at home'. In addition, it was stipulated that 'all those who from the start have committed themselves to pay a donation in the form of a lump sum or an annual contribution' would be regarded as founders of the children's hospital, whereas one could become a common member of the Association by paying an annual subscription fee of ten guilders. Incidental support was possible by making donations in 'money, legacies and bequests' or in kind.

The hospital's expansion brought about by the move to Belvédère put such pressure on the Association's financial resources that in September 1867 dr. de Monchy after all tried to secure a municipal subsidy. On 4 June 1868, the Municipal Council lengthily debated this request, along with sundry preliminary advices, notably from the Coolsingel Hospital Board. The Coolsingel Hospital advised against it, on the grounds that the Coolsingel Hospital itself was excellently equipped to develop child care. Although several council members supported this view, the request eventually was granted by 23 against 8 votes. Since then, the Children's Hospital joined

the subsidized institutions of the municipality of Rotterdam, though for a modest sum (in the years 1868-1877 it was Dfl. 500, afterwards it was increased to Dfl. 2,500).

Private charity, however, remained the hospital's primary financial pillar. After a wary start, with feelings of doubt about the success of the enterprise still prevailing, donations came gradually pouring in, especially when the move to Belvédère confirmed the viability of the Children's Hospital. Many donations were in kind, as appears from the detailed statements added to the annual reports. Toys, reading matter, prams, baby baths, dressing material, 'used linen for which, of course, there is always a crying need', flowers, fruit, cotton wool, many illustrations, and last but not least the supply of sweets on Saint Nicholas Eve and Christmas, convincingly proved the public's growing sympathy for the Children's Hospital. A watchmaker offered to see to 'repair and regulate the timepieces' in Belvédère for free, craftsmen voluntarily carried out maintenance and building repairs, and some suppliers supported the institution by giving considerable discounts.

In addition to financial assistance from private persons, the proceeds of all kinds of cultural activities went to the Children's Hospital. Local dramatic and choral societies and other associations organized performances, concerts and activities 'in aid of the Children's Hospital'. In view of the move to Belvédère in 1866, the board secured the support of 'some twenty upper-class ladies' who organized a needle work raffle and thus were able to hand over the impressive amount of Dfl. 13,000! In several neighboring towns and villages collections were held when one of their young inhabitants had undergone successful treatment in 'the big city'.

The effect of the hospital's dependency on a continuous stream of donations was demonstrated during the French-German War in 1870, when competing relief actions for wounded soldiers and other war victims adversely influenced the income of the Children's Hospital. In the end, however, this war would prove a vigorous boost for the improvement of professional nursing in the Netherlands, the main stimulus being given by the Dutch Red Cross, founded in 1867 as a national division of the International Red Cross (1863). The French-German War not only gave the Red Cross broader public support in the Netherlands, but also made clear that the branches that meanwhile had been founded in several places could perform important tasks in times of peace as well. The training of nurses, to be deployed in the battlefield in war situations and earning a living by nursing sick people in times of peace, was one of these tasks. In order to further develop this activity, ladies' committees were now formed next to the existent (men's) committees. The Rotterdam branch, in which dr. van der Hoeven was influential, became nationally important in the field of nursing by organizing a Red Cross nurses' training course in Coolsingel Hospital. The Rotterdam nurses corps thus set the pattern for the activities in the branches elsewhere in the Netherlands. Following the example of the Red Cross ladies' committees, fifteen ladies among the supporters of the Children's Hospital started a campaign aimed at increasing the number of contributors to the Children's Hospital Association, resulting in a Dfl. 2,300 rise in annual subscription fees in 1871. Furthermore, the discussions about the creation of a Red Cross nurses corps stimulated the

board and directors of the Children's Hospital, in particular dr. de Monchy and dr. van der Hoeven, to breathe new life into the dormant plan to found a similar collective in the field of child nursing.

Such a collective would at last fill the need for trained staff, so that the hospital no longer would have to resort to 'child-minders, dry nurses, even laborers: people without the slightest idea of sick care'. Having at hand sufficient nursing staff, one could also offer assistance outside the institution. Intra- and extramural care had a symbiotic relationship, as meanwhile had become apparent from the practice in institutions elsewhere in the Netherlands. Already in the first years of the Hoogstraat establishment, desperate mothers had urged the Children's Hospital to send someone to visit them at home. Occasionally, the hospital indeed sent out nurses to support the care of young patients on the spot, but a permanent facility was out of the question.

Apart from financial and housing issues, little stood in the way of executing this plan. Dr. de Monchy would have none of a denominational basis for the nurses' association that various quarters insisted on. As opposed to the fear that within a non-denominational association 'the highly indispensable piety would be extinguished', dr. de Monchy expressed the conviction that 'a sister who with heart and soul adheres to her noble vocation, ... does not display any reprehensible indifference. On the strength of widely ranging dogmatic notions, the sisters unite for one sacred purpose, and converge on a single point, which is above all religious differences. This point of unity is love for fellow creatures, not only testified by mouth, but in action and truth'.

In 1874, the announcement of the plan to incept a Nurses' Association was matched with a visit of Queen Sophia of Württemberg (1817-1877), the first spouse of King William III (1817-1890). This Queen was known as reine savante and also showed great interest in developments in nursing. She was known to carry on a correspondence with Florence Nightingale (1820-1910), who with her *Notes on hospitals* (1858) and *Notes on nursing* (1859) had greatly stimulated the modernization of nursing. On an earlier visit to villa Belvédère, which took place on 1 December 1869 and was of great, if not decisive significance for the reputation and recognition of the Children's Hospital, the Queen had been extremely interested. She 'inspected the Institution to its smallest details, conversed most graciously with the young patients and repeatedly expressed her satisfaction with all matters, while she, as tangible proofs of her sympathy presented us with a donation of Dfl. 100 and a sewing machine for use in the Institution'. During this visit, the Queen was asked whether the Children's Hospital, as token of admiration and gratitude, might be allowed to attach Her Majesty's name to the hospital. After a lengthy, formal procedure this request was officially granted on 15 June 1870. The name of the Rotterdam Children's hospital then became: Sophia Kinder-Ziekenhuis (Sophia Children's Hospital).

The relationship between the Sophia Children's Hospital and the Queen had now been established once and for all. On 29 July 1875, another visit followed, during which Queen Sophia not only 'conversed in her own affable manner with the little

ones', but also exchanged ideas with board and directors about the organization of nursing in general and the plans to create a Nurses' Association in particular. The Queen showed great interest in the discourse on 'the expansion of the working range of the institution' and willingly approved of the necessary amendment of the articles of association.

As long as no extra nurses could be accommodated in villa Belvédère, it was pointless to press on with the execution of the plans. No sooner than 16 December 1875, the foundation of a Nurses' Association was realized. A Royal decree then changed the name of the hospital to 'Sophia Children's Hospital and Nurses' Association'.

The patients

Little is known about the extent and composition of the patient population in the period during which the Children's Hospital was housed on Hoogstraat and in villa Belvédère, and likewise about the diseases for which children were admitted. According to the first *Rules for the admission of patients in the Children's Hospital in Rotterdam* (1864), only children between the ages of two and twelve were admitted, 'irrespective of their faith'. Within this group admission was highly selective. All chronic cases were refused, whereas children with scabies of whooping cough were denied admission as long as the hospital did not have 'properly segregated rooms'. To be qualified for admission, children had to fulfill a two-fold requirement, namely that 'the medical officers of the Hospital will have established that the disease it is suffering from makes admission advisable' and that the parents' domestic setting forbade nursing at home. Besides, the hospital fee of forty cents a day could form a financial barrier for some parents, unless one belonged to the poor or needy lower classes to whom the Children's Hospital offered free admission. The articles of the Association provided for the possibility to be recommended by an affluent relation. Those who donated fifty guilders per year were allowed to nominate a child for admittance once a year, while those who contributed a hundred guilders per year were allowed to make unlimited use of this privilege – a peculiar privilege according to present-day standards, which the initiators had undoubtedly created in view of the inherent financial gains.

With the move to villa Belvédère the indications and minimum age for admission changed. There were enough wards now to nurse children with scabies or whooping cough in isolation and to admit chronic patients, those who had little chance of recovery within twelve weeks. From now on, the board decreed, all children could be admitted, 'regardless of the disease they are suffering from'. In 1866, the minimum age for admission went down from two years to one year; only infants remained excluded from admission. Besides, the statistics reveal that the maximum age of twelve years was no longer strictly adhered to. Older children were regularly admitted as well.

The many changes in the first decade call for prudence in the interpretation of the scanty figures given in the reports. Changes in the figures are usually impossible to understand. Undoubtedly, the variation in the number of available beds was an important factor. For example, the general decrease of the figures in the second half of the 1870s is due to the fact that the nurses were housed in the hospital, and consequently the number of clinical beds was reduced. The normal course of events was regularly disturbed by the outbreak of infectious diseases, forcing the management to restrict admission or even close the hospital temporarily! The remarkable drop of the figures in 1866 is associated with the restrictive admission policy in the period when the move to Belvédère took place and during the cholera epidemic in this year, which, however, did not victimize staff or patients of the Children's Hospital.

In 1864 and 1865, the small-scale hospital on Hoogstraat admitted 47 and 37 patients respectively, and the numbers of hospital days amounted to 3,716 and 3,789 respectively. Because the number of patients is unknown, the average hospitalization period can only be estimated at about seventy days. During the first years in Belvédère an average of about 80 admissions per year were recorded, but in the 1870s this number eventually decreased to some 50 admissions per year. This figure (about one admission per week) gives a realistic impression of those early years and helps to reduce a possible anachronistic picture of a dynamic, if not hectic hospital organization to its real proportions. Most children (47%) admitted in the mid-1870s were aged from one to six years. From the muddled medical statistics concerning these years (1874-1877) it can be inferred that patients with joint-diseases and bone caries constituted by far the largest group (ca. 33%), followed by patients with bladder stones (15%) admitted for surgical intervention. Gastrointestinal disorders (ca. 12%), diseases of the 'respiratory organs' (ca. 9%) and rickets and curvatures of the spine (ca. 6%) constituted the third to fifth groups. These categories together account for three quarters of all diagnoses made in clinical admissions.

The decrease in the mean number of hospital days from 5,611 in the early years (1866-1870) to 5,361 in the final years (1873-1877) could all too easily suggest a decrease in the mean hospitalization period, but the opposite is true: in the former period it was 59.2 days against 83.6 days in the latter period! These figures undoubtedly express the extent to which the Children's Hospital in these years experienced the disadvantages of an accommodation that had become completely inadequate, where for every square meter a fight had to be waged between inpatient and outpatient tasks as well as between medical and nursing aims.

The average mortality rate in the first years was about twelve per cent. In the years 1866-1877 it dropped to an average of ten per cent, but this period also counted years (1872 and 1873) in which the mortality rate was about fifteen per cent. About one third of deaths were due to suffocation caused by 'croup' (a collective term for diseases obstructing the respiratory tract), whereas a large part of the remaining deaths resulted from infectious diseases, in particular meningitis and tuberculosis

Announcement of a benefit performance of the 'Vleermuizenclub' (Bats' Club) (27 March 1868) in aid of the Rotterdam Children's Hospital. The family names of the actors suggest that most of them were related to the Board members of the Children's Hospital.

(referring to all kinds of manifestations, such as glandular or abdominal consumption, lung consumption and joint-tuberculosis). There were, of course, few therapeutic maneuvers available, and these were hardly effective, certainly in the above-mentioned diseases. Both in the Hoogstraat establishment and in villa Belvédère the Children's Hospital was rather a nursing home than a treatment center. This was the situation dr. de Monchy was referring to when he talked about 'the misery so many a sick child has fallen prey to from lack of any proper care, treatment, nutrition and accommodation' and concluded 'that so many a child is literally perishing from lack of it or, which may even be sadder, is destined to a life with physical handicaps, which could have been prevented by timely proper treatment'. More than once a child was discharged because there was no prospect of recovery. From the reports it appears that patients were also regularly released on non-medical grounds. If a child could not adjust 'to the surroundings unfamiliar to him' it was rather quickly

decided to let him go, and there were also parents who 'owing to the less cheerful mood in which their children found themselves during the first visiting hour were enticed to take them home immediately'.

Staff

Tradition and innovation went hand in hand when in 1863 a lady head of the household with aristocratic authority was charged with day-to-day management and nursing affairs were consigned to a trained nurse. Lower-class girls and women functioned as helpers or were appointed as evening or night watchers. Both the medical director and the hospital surgeon, and since 1871 the third medical officer dr. Maurits Denekamp (1845-1921), kept a limited number of surgery hours and paid home calls only as part of their private medical practices, which comprised much more than just the Children's Hospital. The first head of the household was the widow Van der Hoop-Meystré, who also lent a hand 'at nursing and attending to the children'. A charge nurse (one Miss Monné) was recruited from Prinsengracht Hospital in Amsterdam, which institution played a leading part in the modernization of nursing in the Netherlands and was way ahead of nursing in the Coolsingel Hospital. From the fact that her successor, Adriane Sabine van Hengevelt (1829-?), came from this Amsterdam model institution as well, it may be inferred that this was a purposive strategy from the side of dr. de Monchy and dr. van der Hoeven.

From the outset, dr. de Monchy seriously objected against the work of maids and even more against the calling in of watchers, who, being lower-class women, showed complete lack of understanding of the hygiene, peace, and quiet that were required in a children's hospital. In his 1864 brochure, he had already mentioned his intention to 'attach two or more middle-class girls to the institution ... and train them for the nursing of sick children under supervision of Miss Van Hengevelt'. 'Maybe,' he added, 'we will thus be able to lay the foundation for a nursing institution, like the ones already in existence elsewhere, and which people in this town have attempted to call into being as well, but to no avail until now'.

Since then dr. de Monchy turned out to be one of the first advocates of a child nursing training course – in a time when most general hospitals were fully satisfied with unskilled personnel functioning as orderlies rather than nurses. According to dr. de Monchy, nurses in children's hospitals 'ought to be more refined and educated than the common maids in the hospitals'. A children's nurse should practice nursing 'not merely as business or livelihood', but 'the true love for children should make her suitable to properly perform with noble self-sacrifice and worthy dedication the difficult task she has undertaken'. Dr. de Monchy took the view that she ought to 'feel happy in her position, and always be cheerful and content', even though the little patients are often 'testy and unruly'! For forty years dr. de Monchy continued to work this theme of professional child nursing, and continued to be in the frontline of the movement striving for the modernization of nursing and the introduction of

training and examinations in the Netherlands. In the history of Dutch health care, dr. de Monchy is not only the founder of the first children's hospital, but also the father of modern child care.

Shortly after the move to Belvédère, dr. de Monchy decided to cancel the function of head of the household and to appoint the senior nurse Pauline Maandag (1841-?) – who had succeeded her colleague Van Hengevelt – as matron. From now on, the senior nurse rather than the head of the household was going to hold sway over the daily business in the Children's Hospital. Under the authority of this first nurse-superintendent avant-la-lettre were two errand girls, who in turns performed household chores as well, and were also the minders for the evening and night shifts. It was not an easy task, which dr. de Monchy and the board were well aware of, judging by the praise for the way in which she performed her 'hard and often so unrewarding duty', and the repeated wish that she might find her true reward 'in the self-satisfaction that may rightly inspire her'. In this context the author of the annual report at the time of the French-German War could not resist cleverly remarking that, as for appreciation, 'the philanthropists under the banner of the Red Cross' were better off than the workers 'in the humble circle of children's friends'.

Matron Maandag's departure in 1874 coincided with the decision process concerning the foundation of a nurses' association. Therefore, her successor had to be appointed with great caution, for the new matron would also be responsible for the training of future nurses and be in charge of a nurses corps that would be executing nursing duties outside the hospital as well. After an interim period under the direction of a nurse, the Amsterdam nurse Clara Maria Vorstman (1842-?) served as matron from May 1875 onwards. Shortly afterwards, having three, and soon four trained nurses and two trainees, the Nurses' Association was able to start the training of children's nurses and to set up a district nursing service for children in Rotterdam. The official starting date was put on 1 January 1876, two weeks after the association's change of name had been approved by Royal decree. Finally, although not belonging to the skeleton staff, the assistant-teacher Mr. S.C. van Nispen, a regular presence in the children's hospital, should be mentioned. For more than half a century (1872-1925), he taught patients of primary school age thrice a week, without any payment. The younger patients were attended to by the nurses, who in view of this task had mastered 'the Fröbel-method of the kindergartens'.

Within fifteen years the Children's Hospital had proved the rationale of its existence. The institution had become an essential element of the health services in Rotterdam, both intramural and extramural. The move in 1878 to a much larger accommodation equipped on modern lines signified the definitive close of this pioneering stage and the onset of a new period that would be characterized by consolidation and expansion. The first children's hospital in the Netherlands was going to play a leading role in this period as well.

chapter 3

The Sophia Children's Hospital: consolidation and expansion 1878-1934

Villa Belvédère had been functioning as a children's hospital for only two years when notice was given that the building would have to be evacuated soon, because of planned town expansion in the northeast. After some discussion, the authorities granted a delay, but it was clear that an eventual move would be inevitable. The necessity of moving became even more pressing in the early 1870s, on the one hand because the number of clinical patients and outpatients continued to grow, and on the other hand because of the decision to set up and house an association of nurses. There was, however, little chance of renting – against a reasonable price – a building that would have room enough to accommodate both the patients and the Nurses' Association. Only a newly built hospital would provide the estimated space required and meet the criteria for the location of a modern hospital.

The decision to build a new hospital was undoubtedly also stimulated by developments in Amsterdam. There, following Rotterdam's example, a small children's hospital, comprising ten beds and housed in the former English orphanage on Oudezijds Achterburgwal, had opened in May 1865. In Amsterdam, too, the demand for beds soon outgrew the space available and in 1872 the Amsterdam children's hospital board took the decision to build a new hospital on Sarphatistraat. When this new children's hospital opened its doors in September 1873 it had room for fifty beds. It was built on the traditional corridor model, with a central administrative block flanked by large wards opening on common corridors.

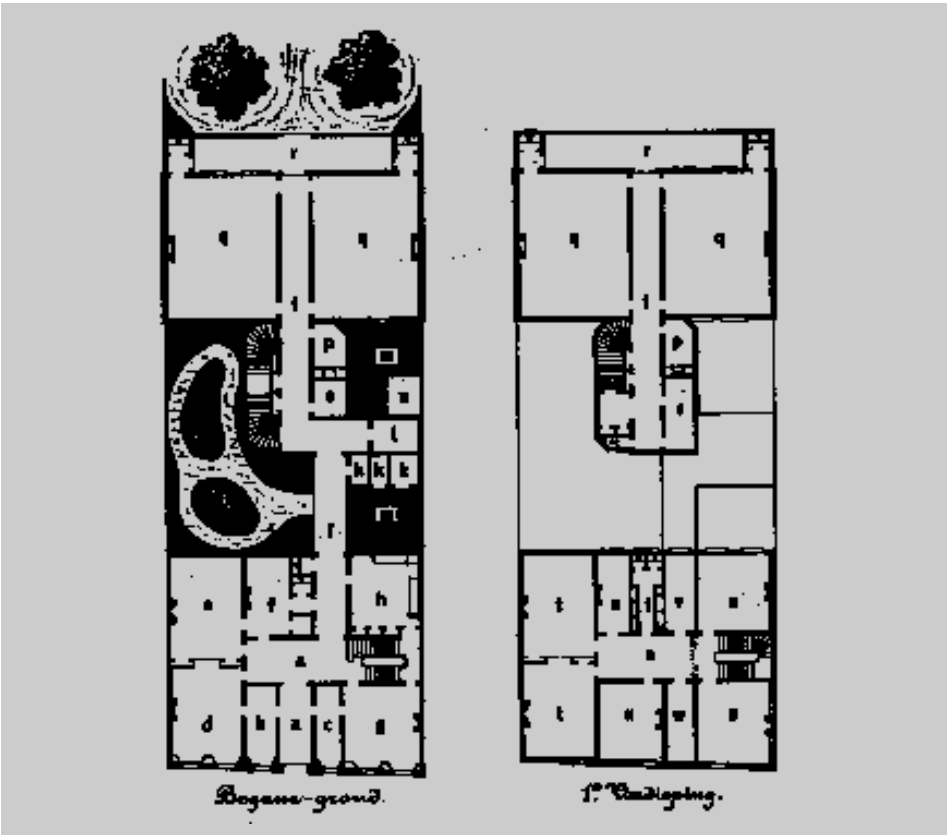
Portrait of Queen Sophia, King William III's consort, at the time of her involvement with the Rotterdam Children's Hospital.

A new building on Westersingel

The first step towards a new building for the children's hospital in Rotterdam was the purchase in autumn 1875 of a large site in the extreme west of the town, outside the old inner city. Once again an out-of-the-way spot was chosen, inconvenient for both visitors and outpatients; but this was outweighed by the advantage of building in almost rural surroundings, as yet un-spoilt but already opened up by the landscaped canals that were part of the Waterproject mentioned above. With its 640 square meters set apart for the building, and a garden measuring over 300 square meters, this new location could easily compete with the ambiance Villa Belvédère had offered.

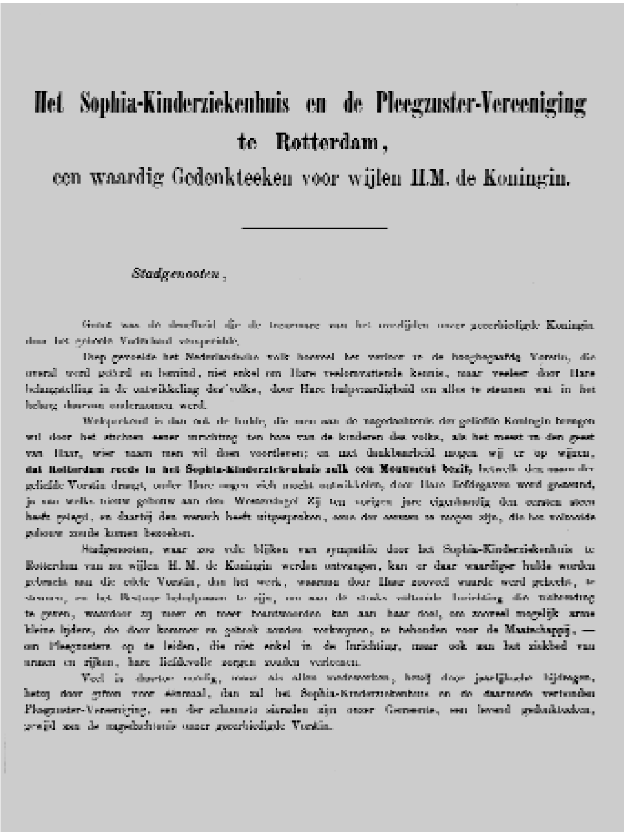
The plans for the new hospital by W. van Dam and P. Vermaas clearly show that these architects had thoroughly studied current developments in hospital architecture. At that time the corridor model was gradually being displaced by the pavilion model which allowed light and air to enter from at least two directions. In the Netherlands a complete realization of this building principle had to wait till 1878 (in the new municipal hospital in Dordrecht), but Van Dam's and Vermaas' decision to separate the main block from the patients wards was a first step in the right direction. Their preference for a pavilion-style building was not only motivated by the hygienic benefits it entailed, but also by the wish to provide the Nurses' Association, which would also be active extramurally, with the necessary accommodation outside the hospital proper. The main building had a sixteen meter wide front bordering on Westersingel and its ground floor was in use for the outpatients' waiting room and consultation room, the operating room, the matron's sitting room and study, and the kitchen. The entire first floor was reserved for nurses' quarters, and the servants lodged on the second floor. For the time being the third floor remained largely unused, offering room for future staff increase. On ground-floor level a narrow corridor linked the front building to the two-storied rear building, which contained two large wards (sixty square meters floor area) on each floor. Although this design allowed for a total of forty-eight patients and twenty nurses, in the early years the number of patient beds did not exceed forty. The building costs amounted to the modest sum of Dfl. 80,000.

The laying of the foundation stone became a major event because of the presence of Queen Sophia, who had graciously agreed to perform this ceremony. Naturally, the fund raisers for the new hospital made good use of this token of royal favor. On 6 October 1876 the Queen arrived at the railway station, visited Belvédère and proceeded to Westersingel to lay the foundation stone under a canopy especially erected for the occasion. After the obligatory speeches the Queen made a short carriage tour through Rotterdam, which concluded what was to be her last visit to Rotterdam. She died on 3 June 1877 and large sections of the population felt her death as a sad and personal loss, a feeling emphatically shared by the directors of the children's hospital in Rotterdam, the institute that over the years had established a special bond with Queen Sophia.



Plans of ground floor and first floor of the new Children's Hospital at Westersingel. Legend: a=entrance hall, b=porter's room, c=interviewing room, d=waiting room, c=consultation room, f=operation room, g=matron's room, h=kitchen, i=corridors; k=fuel storage, l=mortuary, m=open space, n=shed, o=bathroom, p=dairy kitchen, q=patient wards, r=verandah, s= separation room, t=nurses' dining and sitting rooms, u=nurses' bedrooms, v=pantry, w=bathroom.

Before long it was proposed 'to keep alive the memory of the beloved deceased by erecting a worthy monument' and the connection with the new building for the children's hospital already bearing her name was easily made. In a circular letter the building activities on Westersingel were 'recommended as a special and dignified local memorial for the future' and this appeal proved immensely successful. A committee, officially designated as the Committee for the Support of the Sophia Children's Hospital and the Nurses' Association in Rotterdam and consisting of sixty citizens among whom Mayor Joost van Vollenhoven (1814-1899), raised Dfl. 8,000 in no time and registered commitments for annual contributions to the amount of Dfl. 25,000. In this way the most pressing financial cares connected with the building of the new hospital were cleared away.



Het Sophia-Kinderziekenhuis en de Pleegzuster-Vereeniging te Rotterdam,

een waardig Gedenkteeken voor wijlen H.M. de Koningin.

Stadgenooten,

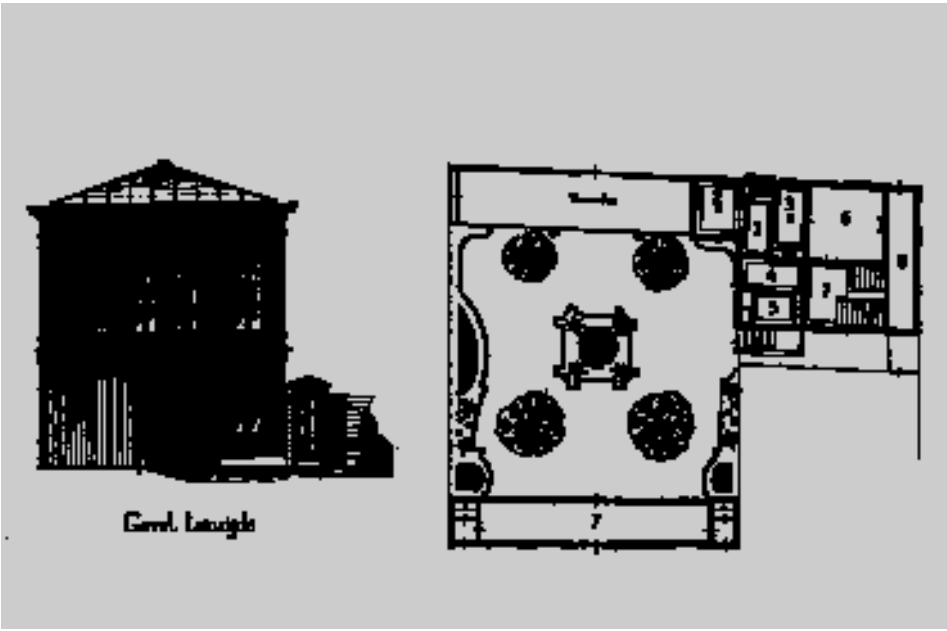
[illegible]

Left: Circular letter addressed to the citizens of Rotterdam, appealing for financial contributions to the building of a new Sophia Children's Hospital, proposed to be 'a worthy monument for the late Her Majesty the Queen'. Right: the foundation stone for the new building at Westersingel, laid by Queen Sophia.

Meanwhile construction itself was progressing only slowly, mainly due to such vicious winter weather as never seen before. Still, the moment of completion was drawing near, and the opening of the new building would have been a joyous occasion if the absence of the Queen had not been felt so deeply. King William III had promised to perform the opening ceremony but begged to be excused, and at the last moment Crown-prince Alexander (1851-1884) abandoned his resolution to replace his father. It was, therefore, 'with mixed feelings of gratitude and sadness' that the speeches were delivered on 13 March 1878. Afterwards the public could inspect the premises, which for financial reasons were only half furnished. A month later the patients were transferred from Belvédère to the new location.

Principal moments and prominent personalities

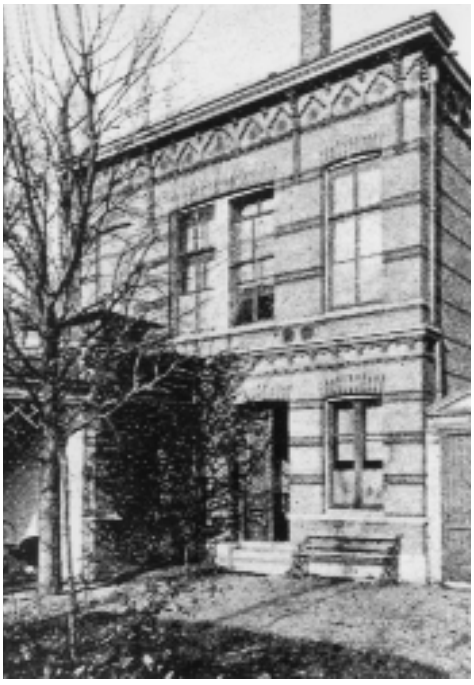
For almost sixty years the Westersingel complex remained the center of child health care in Rotterdam. In this period it underwent several adaptations and expansions.



Design for the isolation ward in the garden of the Sophia Children's Hospital, 1888. Left: garden front; right, plan of ground floor. Legend: 1=entrance hall, 2=mortuary, 3=operation room, 4=corridor, 5=tea kitchen, 6=family room, 7 and 8 =covered passages.

The first major extension was realized in 1888, a quarter of a century after the foundation of the hospital, and consisted in an isolation unit at the bottom of the garden, designed for nursing children with infectious diseases. As can be inferred from the drawings, this stone built unit was much more than a simple shed, comprising as it did a surgery (called operating room), a morgue with autopsy room and a family room on the first floor. Upstairs were two small wards for two and three patients, respectively, a nurse's bedroom and a bathroom. Also taken in use in 1888 was a new operating theatre in the main building, which will be extensively discussed further on when dealing with medical developments.

As is true for all hospitals, the garden of the Sophia Children's Hospital was of more than merely decorative and recreational importance. Before the discovery of antibiotics, therapeutic success, particularly in children suffering from tuberculosis and associated diseases, was thought to be mainly dependent on sufficient exposure to light and air. Weather permitting, patients were, therefore, frequently placed in the open air, either on the balconies of the wards, or in the garden. By the mid-eighties the garden had been provided with shelter, allowing the patients to be exposed to fresh air even in bad weather. The garden also served as recreational



Left: garden front of the isolation ward; right: foundation stone of the isolation ward, laid by the 9-year-old son of medical director de Monchy, 17 June 1887.

grounds for resident staff, who scarcely had any opportunity for seeking diversion outside the hospital. In the 1890s the flat roof of the hospital was adapted to open air treatment as well. The ultimate application of the air and light principle was the building of a sanatorium by the sea, for which the Sophia Children's Hospital resorted to Loosduinen near The Hague in 1892.

For dr. de Monchy this year was memorable for several other reasons too. On 15 June 1892, in part on his initiative, the Dutch Society for Pediatrics was founded, and he was elected its first president. A few months later, in October 1892, dr. de Monchy was present at the inaugural meeting of the Dutch Union for Nursing. He became a prominent member of this organization, well-known for pleading that child care and nursing required special qualifications. Eight years later, celebrating his seventieth birthday in 1900, to which much attention was given both inside and outside the Sophia Children's Hospital, he could state with great satisfaction that many of his ideals concerning the interests of the sick child had been realized by now. This same birthday prompted dr. de Monchy to pass his medical duties in the children's hospital to a successor and devote himself entirely to managerial tasks. The Sophia Hospital had entered a transitional stage also in other respects. In 1899, dr. Denekamp, who had been head of the internal outpatient department for years, took his leave. The ward he had been using to treat his own, private patients, was now converted into a 'cradle room' for eight babies, and thus the neonatal unit came into being. The next year saw the death of dr. van der Hoeven Sr., who, despite

having handed over his practice to his son already in 1890, had been a regular presence in the hospital as consultant. Dr. Denekamp's place in the outpatient department went to the young physician Anthonie Backhuijzen Schuld (1865-1937), who had already been making himself useful in the Sophia Children's Hospital in a different capacity, taking care of bacteriological and chemical diagnostics in the laboratory which had been built for that purpose in the isolation unit in 1894. When dr. de Monchy laid down his clinical task in 1900, Bakhuysen Schuld was his natural successor and was appointed as such in 1901.

Dr. de Monchy's death in February 1905 presented the board with the difficult task of appointing a successor. Although it was not common practice to appoint a surgeon as medical director, dr. van der Hoeven Jr. was preferred on grounds of seniority. Less than two years later he sprang a surprise on his colleagues and superiors by announcing his departure to the provincial town of Zutphen, where, in addition to his surgical activities, he also took up the discipline of medical history. The way was now open for dr. Bakhuysen Schuld, who in 1907 was indeed appointed medical director. But again this change of directorate did not bring the continu-

Garden at the Westersingel location, to the right the isolation ward and left in the background the covering that had been put up in 1888. Open-air treatment was a major objective for the children's hospitals in the nineteenth and early twentieth century, hence gardens, verandahs and roof terraces were intensively used.

Dr. A. Bakhuysen Schuld, initially active in the Sophia Children's Hospital as 'laboratory physician', succeeded dr. de Monchy in the Department of Pediatrics in 1900, and was hospital director as well in the years 1906-1907.

ity hoped for. Still in the same year the new medical director accepted an honorable appointment as medical superintendent of the new Sanatorium Oranje-Nassau's Oord at Renkum, and left Rotterdam.

Dr. Lambertus Bernardus de Monchy (1873-1932), son of the founder of the Sophia Children's Hospital, now presented himself as new candidate for the position of medical director. Having finished his medical studies at Leyden University with a doctoral thesis on prostate hypertrophy, he had briefly worked as a surgical resident in the Coolsingel Hospital, but had eventually opted for a general practitioner's practice. Like his father, 'L.B.' was especially interested in the treatment of sick children and thus became a representative of the general practitioner-cum-pediatrician semi-specialty which in the *inter bellum* became the target of increasingly fierce criticism. Upon his unexpected death in October 1932, the local papers described him as 'a fine, amiable person and high-minded, earnest doctor' and 'a capable physician of great diligence, with a great deal of love for his patients, the little ones among whom were particularly dear to him'.

When dr. de Monchy took up his office in 1908, the hospital's organization was structured around the five basic departments: pediatrics, pediatric surgery, the neonatal unit, the outpatient department (with different consultation hours for pediatrics and pediatric surgery) and the seaside sanatorium. The medical developments in these departments will be described in more detail further on, in particular the rise of pediatric subspecialties and their introduction in the Sophia Children's Hospital. At that point attention will also be paid to the introduction of the principle of separate nursing cubicles in 1915.

The adaptation of the hospital to the single-cubicle system, which caused a dramatic change in the hospital's interior, was part of a series of alterations over the years, comprising among other things technical renovations such as the installation of central heating in 1883 and the linking up with the municipal electricity net in 1914-1915. The furnishing of a dairy kitchen (1914), the extension of the laboratory facilities in the isolation ward (1915 and 1921), the installation of a sunlamp in a special room (1922) and other alterations relating to the medical function of the hospital, will pass in review in the chapter on medical developments.

As the twenty-fifth anniversary of the hospital in 1888 had been the starting point for expansions, so the fortieth anniversary in 1903 was used to raise funds for a reconstruction of the interior. The patients' block was extended at the rear side, providing room for twelve extra beds in the wards. The total capacity was now forty-eight beds, twelve cribs, and eight isolation beds. In addition, the outpatient department was radically altered and expanded in 1903: the rear wall of the administrative block was moved backwards and, next to the main entrance, a separate entrance to the waiting room of the outpatient department was created. In the following years this situation remained unchanged, apart from a renovation of the entire frontage in 1918, necessary since a few years earlier the building had suddenly showed signs of subsidence.

In 1914, the Association Sophia Children's Hospital and Nurses' Association bought one of the adjacent premises on Westersingel (No. 11); five years later the house on the other side (No. 13) was acquired as well. The annual reports following these purchases repeat emphatically that they also served to enlarge the hospital's

The roof terrace, mainly used for open-air treatment of children with tuberculosis or scrofula.

Left: plaque, mounted in the hall of the Sophia Children's Hospital, June 1933, in memory of the medical director dr. L.B. de Monchy. Right: dr. L.B. de Monchy, son of the founder of the Sophia Children's Hospital, and medical director in the years 1908-1932.

gardens. No. 11 was let until 1920, but then taken in use; on the ground floor a couple of service rooms, including a large X-ray chamber, were furnished. This made it possible to enlarge the kitchen in the main building and to improve laundry facilities; for example, a diaper laundry room, badly needed for the proper functioning of the neonatal unit, was furbished. The first and second floors of No. 11 became the residence of the medical director, a measure from which the hospital profited financially as well as in practical and organizational respect. The attic of No. 11 was put to use as part of the nursing staff quarters.

Owing to the awkward financial position, the furnishing of No. 13 was repeatedly postponed, until in 1932 the building was incorporated in the hospital. It housed an incubator ward for ten premature babies, a 'sunny' room for private patients, a toddlers' room decked out with 'artistic and very fine wall decorations'; an isolation ward, a small library, overnight accommodation for parents and living quarters for the nurses as well as for the living-in residents who had meanwhile joined the medical staff. The basement room overlooking the garden was equipped with a sunlamp and thus became the treatment room for rickety children. Including the ten incubators mentioned above, the total capacity of the hospital, that for more than three decades had not exceeded forty-eight beds and twelve cribs, had now reached seventy places.

Front view of the Sophia Children's Hospital at Westersingel, after the 1903 renovation.

Finance and funding

The financial reports for the Westersingel-period show significant shifts on all counts. While the item 'food and housekeeping' amounted to almost Dfl. 5,400 in 1880, it had increased to over Dfl. 20,500 in 1930. In the same period, 'salaries' went up from almost Dfl. 1,800 to more than Dfl. 14,300 in 1920, and 'medical instruments and medicines' from Dfl. 1,600 to Dfl. 9,600. In the 1920s and 1930s, when the Sophia Children's Hospital, too, was facing the consequences of the economic crisis, extremely frugal housekeeping and great restraint in medical expenses were important money-savers, but these gains were completely undone by the item 'salaries', which more than doubled from Dfl. 14,300 in 1920 to almost Dfl. 33,200 in 1930.

These developments made it more and more difficult to uphold the view that private philanthropy ought to be the most important, if not the only pillar of the Sophia Children's Hospital. In fact, as early as 1892, in an address to the Dutch Society for Pediatrics, dr. de Monchy had abandoned this position by stating that the 'survival of children's hospitals depended on sufficient governmental funding, in particular by local authorities', and after the turn of the century the financial management of the Sophia Children's Hospital unmistakably became more businesslike. The item 'hospital fees' was absent from the account of 1888, but made its appearance in 1900, discretely masked as 'voluntary contributions to nursing expenses', to the tune of Dfl. 512. This item yielded Dfl. 3,100 in 1920 and no less than Dfl. 58,000 in 1930.

> 'The municipal authorities, thus is our reasoning, institute a good hospital, but rather not with philanthropic intentions; on their side it is rather a measure of self-preservation, a potent means to prevent pauperism; through effective and attentive nursing care they attempt to restore breadwinners, who owing to illness are without money, to society and their families as soon as possible, lest the latter should fall into poverty. When a child is ill, these considerations do not count; a family does not fall into poverty because one or more children are languishing in a musty bed-box – from an economic point of view it would be even more advantageous for the municipality if these poor, weak, little wretches were to disappear from the world stage as soon as possible, and this is why, in our view, the care for these sick and deprived children is the domain of private charity…'
>
> Dr. H.W. de Monchy in his annual report 1891, p. 13.

This increase was mainly due to an agreement between the hospital and the municipality of Rotterdam, drawn up in March 1920, for the 'letting' of beds. The dire need for hospital facilities in these years forced the local authorities to reserve a number of beds in private hospitals for the use of patients dependent on poor relief. In the contract of 1920 the Sophia Children's Hospital put 25 beds to the disposal of the town council against a fixed rate of Dfl. 2,50 per nursing day. When, however, real nursing costs gradually increased to Dfl. 4,25 per day, the town council for a long time proved unwilling to adjust the contract and so the so-called 'council beds' in fact constituted a considerable loss. This was the more heavy to bear, as the municipality, immediately after the signing of the contract, had drastically reduced its annual subsidy, from Dfl. 5,000 (agreed upon in 1902) to Dfl. 1,250, and a year later stopped subsidies altogether. The provincial subsidy, which in 1904 had been increased from 1,500 to 2,500, remained unchanged after that year in spite of many requests to adjust the sum to the increase of patients from outside Rotterdam.

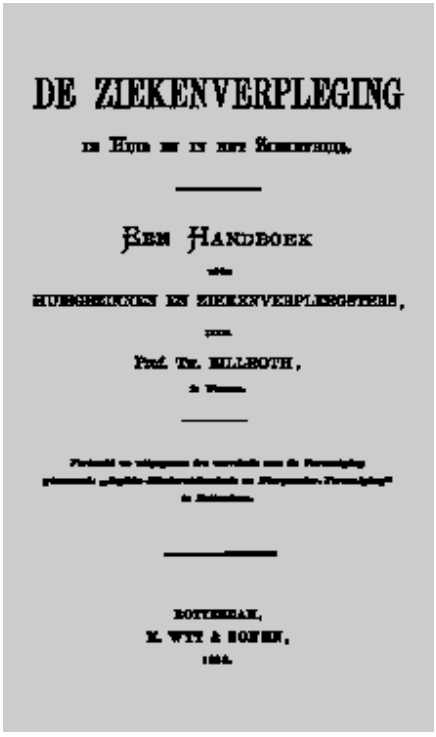
In 1900, the more than twelve hundred subscribers to the Association Sophia Children's Hospital and the Nurses' Association contributed over six thousand guilders to the annual income. The contribution decreased gradually, though with remarkable fluctuations, to some Dfl. 3.500 around 1930. The board suggested that the diminished attraction was mainly due to increasing competition with other social and medical institutions which also appealed to charity. The secretary, with unconcealed envy, mentions, for instance, how the Rotterdam Deaconesses' Hospital, established in 1892 some hundred meters further down the Westersingel, was financially supported by the moneyed ladies Van Dam; how the Salvation Army thanks to a donation had procured a large building and how an 'administration for the upkeep of schools' had been presented with Dfl. 130,000. The hospital anxiously awaited the appearance of a '*Deus ex machina* ... that would be a blessing for thousands of deprived and suffering children now and for posterity' and would enable the Association to make up the running deficits and fill the crying need for extra beds.

In order to compensate at all for the large deficits, all kinds of charity campaigns remained an integral part of the activities of board and directors. The exhaustive attention paid to the consecutive jubilees served no other purpose than augmenting the revenues. The 1888 celebration consisted of a festive gathering at which the Chairman of the Board made a speech commemorating the first twenty-five years, and dr. de Monchy lectured the audience with 'A word about pediatrics and children's hospitals'. The 'solemn choral singing from Psalm 23' ('The Lord is my shepherd, ...!) was followed by a tour of the premises, focusing on the new isolation ward and the new operating room. The thirty-fifth anniversary (1898) was celebrated with a fancy fair and a lottery, which yielded more than Dfl. 16,000. All these celebrations, however, paled into insignificance compared with the celebratory activities around the golden jubilee in 1903. Apart from the official and very solemn commemoration, which the press extensively covered, a series of festivities took place in the city theatre. Here, the assembled crowd could enjoy children's dance, declamation, song and play-acting. Enthusiasm apparently reached an unprecedented level during the fancy fair. 'Timid family-fathers caught themselves taking their fourth or fifth glass', a reporter did not failed to observe; 'they were eating chocolate and cookies and even pastries! Whoever could refuse the charming sellers? It was for the good cause, and one had taken it into account!'

Like the jubilees, royal visits were important events that could bring the Children's Hospital into the limelight. On 9 June, 1899, Queen-Mother Emma and her newly crowned daughter Queen Wilhelmina visited the Westersingel establishment. According to the newspapers their arrival 'at half past three' was heralded by great cheers; next followed the customary speeches and the tour of the wards 'where the little patients, waiting for this unforgettable moment, sat up straight in their beds'. A few years later, on 13 April, 1907, this spectacle repeated itself when Queen-Mother Emma again visited the Sophia Children's Hospital.

It is nearly impossible to even roughly classify the long lists of gifts included in the annual reports. In any case, toys and foodstuffs predominated. The supply of games, rocking horses, magic lanterns and the like, amply offset the loss by wear and age. Sago, eggs, cod-liver oil, wine, fruit and 'tidbits' were the most frequent foodstuffs. Especially around St. Nicholas' feast (5 December) and Christmas, the Sophia Children's Hospital received a generous share. Clothing also featured as a fixed item in the lists of gifts. In 1894, half a dozen young ladies decided to set up a sewing circle named 'Sophia' with the purpose 'to fabricate clothes for the patients treated in the institution'. The older children and the nurses enjoyed all kinds of reading matter brought to the hospital. Poignant gifts were those from parents of patients who either had been cured in the Children's Hospital or died. Performances 'for the good cause' by all kinds of cultural societies became less frequent, however, undoubtedly because the number of charitable institutions continued to grow.

Apart from all this, a few special activities deserve to be singled out. For instance, in the 1880s a local clergyman, vicar Vink, used to leave the contents of the Sunday school moneybox with the treasurer of the Sophia Children's Hospital. Further-



DE ZIEKENVERPLEGING

EEN HANDBOEK

HULPSCHRIJVERS EN ZIEKENVERPLEEGSTERS,

Prof. Th. BILLROTH,

ROTTERDAM,
M. WYT & ZONEN,

CONCERT,

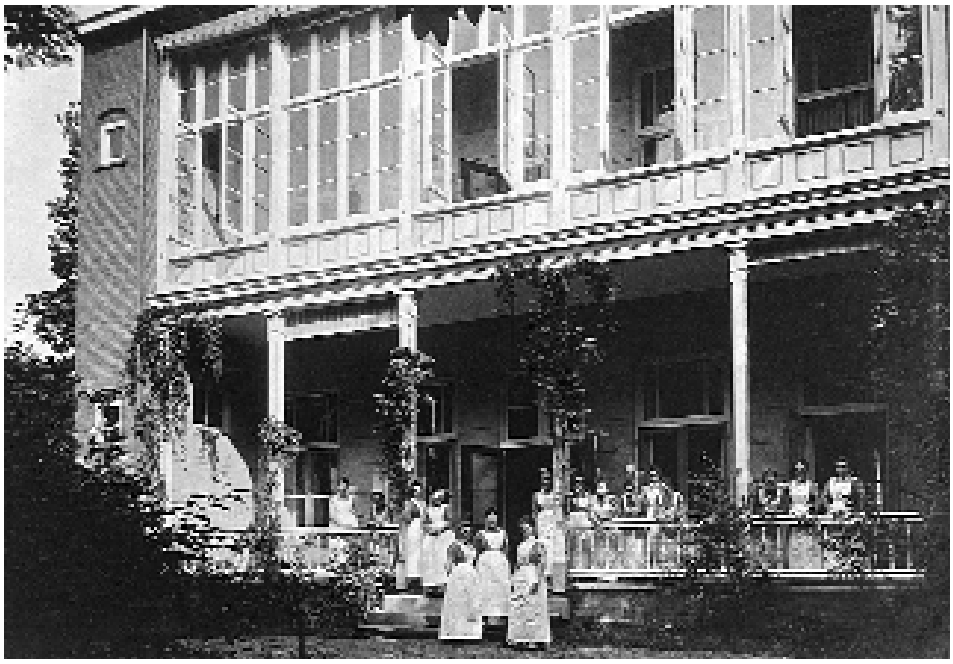
ten voordeele van het Sophia Kinder-Ziekenhuis.

Mejuffrouw SELMA KRONER en den Heer Kapelmeester ADOLF MULLER.

Left: front page of Theodor Billroth's nursing textbook, in 1883 translated into Dutch by the Rotterdam trainee-nurse Miss E. Schalkwijk on the initiative of dr. de Monchy (depicted is the 1883 edition). Right: notice in the Rotterdamsch Nieuwsblad, 30 November 1879, announcing a charity concert in aid of the Sophia Children's Hospital.

more, initiated by dr. de Monchy, a Dutch rendering of the well-known nursing handbook by the Viennese surgeon Theodor Billroth (1829-1894) was published in 1883, the proceeds of which were intended 'for the benefit of the Children's Hospital and the associated Nurses' Association'. This important work, which was published in many other languages as well, had been translated by Miss E. Schalkwijk, a probationer nurse in the Sophia Children's Hospital, who successfully took her nurse's exams two years later; shortly afterwards she left for the Dutch East Indies. In 1885, the first profits from this publication were used to put glass on one of the verandahs at the rear of the patient wards. Ever since this location used to be called the 'Billroth-verandah'.

In the same year 1883, another publication brought the Sophia Children's Hospital financial gains. 'Being Ill' was a story for the young, written under the pen name Wilhelmine and published in the *Kindercourant* (*Children's Paper*). It relates how a doctor attempts to correct a rich lad's mistaken idea about medical care for poor children. A real tear-jerker is the description of a girl in a slum area, who 'in this high bed-box, in that dark, damp pigeon-hole, has lain for already more than a fortnight with a burning face and wildly glittering eyes, or then again motionless and deadly pale, and, though shivering from head to feet, is too exhausted to wrap up in the thin cover which she has cast off in her feverish heat'. Visiting the children's hos-



The proceeds of the Dutch translation of the nursing textbook were used to finance the alteration of the so-called Billroth-verandah in 1885.

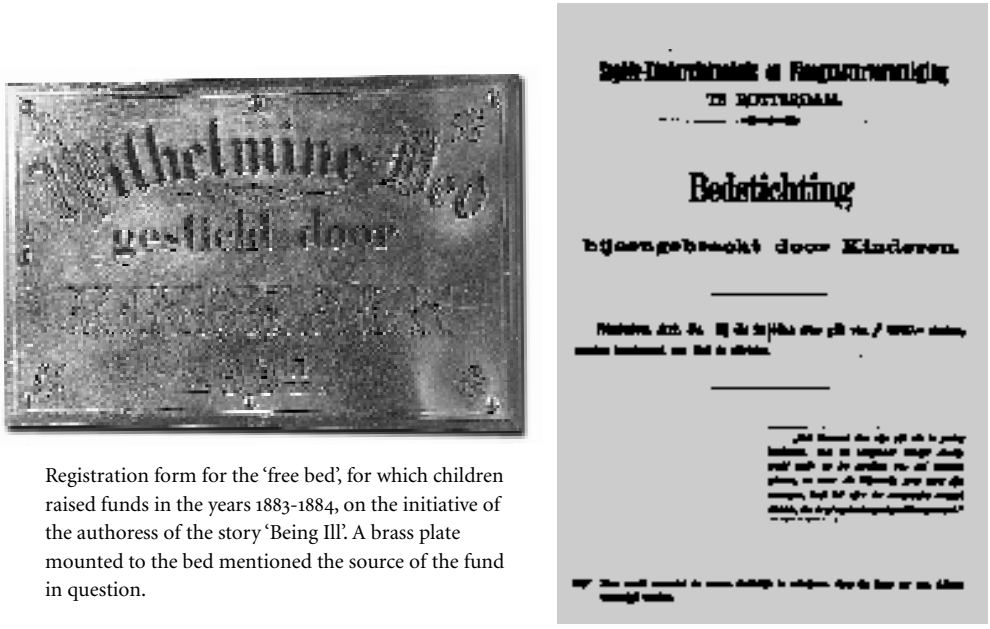
pital, the rich kid witnesses that the poor children are given excellent medical treatments. Unfortunately, thus ends the story, this ideal care cannot be offered to all children needing it. 'Plenty of room, but no money', is the gloomy conclusion.
But according to the authoress this conclusion was no reason to throw in the towel. 'If all children throughout the country were to save a few pennies, would then the amount of money thus collected not suffice to fund a bed in the Children's Hospital in Rotterdam?' The campaign became a resounding success. In no time three thousand guilders were raised, coming from both 'the heavy piggybanks of the well to do' and 'the tuck money of the poor saved with self-denial'. One of the hospital beds then came to bear a brass plate with the inscription 'Wilhelmine-bed, funded by children, 1883-1884', indicating that the nursing fees for the patients in this bed would be covered by the Wilhelmine-fund. One of the members of the board had already vouched for one of the beds, and after 1883 yet a few more beds were privately sponsored.

Finally, two other fund-raising campaigns deserve to be mentioned as examples of the creative attempts to keep going the flow of gifts from private persons. In 1892, half a dozen girls started to sell so-called punch cards, and raised Dfl. 6,427.55 within two years, that is 128,551 cards sold! The 'Quarter-guilder Society' was founded in the same year, and members committed themselves to pay a monthly donation of

twenty-five cents. The very fact that such campaigns were mounted shows that it was essential to stimulate charity again and again; otherwise the income from that source would decline too much. Tellingly, voluntary contributions dropped more than Dfl. 16,000 in 1894, and the next year word was received that the Ladies' Committee, at one time formed as a supporting committee for the Sophia Children's Hospital, had been disbanded. Around the turn of the century the hospital unmistakably lost its aura of charitable institution and acquired the new status of an establishment for up-to-date medical and surgical care and treatment.

Nurses and other personnel

According to the articles of the Nurses' Association, that had started its activities in January 1876, its major aim was the education and training of nurses. As appears from the nurses' instruction, only unmarried women or childless widows between twenty and thirty-five years old, 'irrespective of their religion', were admitted to the nursing profession. They owed obedience to the matron and were bound 'to alleviate by patience, cordiality, tolerance and self-denial her (the matron's) task and to encourage the close companionship of the nurses among themselves'. Remarkable is the stipulation that the nurse ought to possess the inclination and readiness 'to dedicate her life entirely and unconditionally to the task of nursing the sick, to take up residence in the institution and to subject herself willingly to the regulations set down by the board'. As mentioned before, dr. de Monchy's views on the organization of nursing care were partly inspired by the deaconesses' movement, with its fundamental principle of the nurse's lifelong bond with the mother house. As late as 1889, dr. de Monchy, pondering the work of independent nurses, openly asked the question 'whether nursing without supervision but also without protection and often burdened with all kinds of worries about housekeeping, food and clothes, is indeed to be preferred to the more sociable and more instructive, institutional life, without anxiety over material interests'. This view probably accounts for the incident in 1881, when all of a sudden matron Vorstman left, together with five nurses, although the full facts of the matter cannot be gleaned from the available sources. The annual report states that the reason for the sudden departure was 'a difference in opinion in the conception of their (matron's and nurses') position'. This rather cryptic utterance admittedly allows for all sorts of interpretations, but pertained in any case to distinguishing the nurses' domestic tasks from their nursing duties. Although the 1875 instruction stated that the work of the nurses would never be restricted to 'heavy household chores', the following rule, to the effect that a nurse should never shirk 'any acts of service which were connected with her noble position', could be interpreted so widely as to burden the nurses with household duties. The conflict is strongly reminiscent of similar incidents elsewhere; these 'differences in opinion' occur characteristically as part and parcel of the modernization process of nursing care.



Registration form for the 'free bed', for which children raised funds in the years 1883-1884, on the initiative of the authoress of the story 'Being Ill'. A brass plate mounted to the bed mentioned the source of the fund in question.

The vacancy of matron was soon filled through the appointment of Anna Johanna Wilhelmina Ploem (1835-?), a nurse for the renowned Burgerziekenhuis in Amsterdam. She held office for only a short time (1881-1884) and during this period no mention is made of reorganizations of the nursing staff. When Ms. Ploem left, the Board appointed in August 1884 baroness Malvina Adolphina Louisa van Heekeren-van Waliën (1838-1915), a titled lady from Zutphen and deputy matron since February 1883. The newly appointed matron, however, was unwilling to accept her appointment: never – she informed the board – had it been her intention to take up a permanent position in the Children's Hospital. Then it took until November 1884 to find somebody willing to undertake the obviously difficult task of matron permanently; Henriette van Marselis Hartsinck (1847-1931), widow of Mr. Simon van der Aa, accepted the job as per April 1885 and has been one of the mainstays of the Sophia Children's Hospital until 1904. The new matron soon became dr. de Monchy's right hand and managed to make the nursing staff a stable factor within the organization.

Shortly after the arrival of Mrs. Simon van der Aa, who herself had neither been trained as a nurse nor had any nursing experience, the function of head nurse was called into being (sister H.M. Ensemeier), so that from now on matron could delegate the daily supervision of the nurses. In 1884 the nursing staff consisted of eight full nurses and three probationer nurses. Other personnel included a porter, whose wife worked in the kitchen, and two maids working in the fore-building and one maid exclusively for the hospital, the latter to replace the charwoman who was too

expensive to work daily. Dr. de Monchy repeatedly complained about the difficulty of recruiting girls and women for the nursing profession, saying it was tragic 'that many strong and spirited women or girls, who now, dissatisfied with their rather pointless lives, are seeking more useful activities, will not dedicate themselves to the noble and rewarding task of nursing the sick'. During the whole period of Mrs. Simon van der Aa's leadership, the number of nursing staff remained at about thirteen (probationer) nurses.

In 1895, Mrs. Simon van der Aa informed the board that henceforth she preferred to serve the Association as matron of the Loosduinen sanatorium. Anna Helena Adriana Ittmann (1850-?) became the new matron of the Sophia Children's Hospital, but it soon became clear that she was not equal to the job. Two years later (1897), Mrs. Simon van der Aa resumed her position in the Westersingel establishment, though with continued responsibility for the running of the sanatorium. She fulfilled this dual function to the undiminished satisfaction of her superiors, who in the annual reports could not find the words to praise the matron's dedication and decisiveness. In 1904, still under dr. de Monchy's directorate, she resigned her heavy task.

Mrs. Simon van der Aa was succeeded by Emma Brown, a qualified nurse for the Coolsingel Hospital, who was to hold her new position of (deputy) matron for a quarter of a century. Shortly after her arrival the nursing division was further structured by appointing three departmental heads, and the number of nurses rose to about twenty-five, most of whom (some twenty nurses) were still in training. In 1921, not accidentally the year when nursing training programs were provided for by law, a new function was created for supervision of the nursing staff and the nursing training program, and hence Sister J.C. Peterson was appointed head of the nursing division. In future, a matron was supposed to occupy herself with general directorship and administrative tasks, including personnel administration, financial accounts and patient registration. The appointment of a special official (Miss A. van Leede) for these administrative duties in May 1929 resulted from a rearrangement of managerial tasks following the leaving of Sister Emma Brown. The appointment of sister E.C. Schmidt, who in 1923 had taken over sister Peterson's position of head of the nursing division, meant that the Sophia Children's Hospital now had a matron who counted the nursing division as her main responsibility; consequently other officials were appointed for the daily supervision of the housekeeping department and for taking care of administrative tasks.

In these years, nursing developed into a professional activity, the guiding principles of which were no longer vocation and sheer mystical devotion, but rather expertise and an occupational status laid down by labor law. In 1896 the Association, acting as employer, implemented a pension scheme for nurses aged 55 years and older. In 1920, following the occupation of the premises at 11, Westersingel, the board decided to reduce working hours. Introducing this measure, the Sophia Children's Hospital was several years ahead of the time when, finally, the nursing profession was legally

Mrs. H.C.S. Simon van der Aa-Van Marselis Hartsinck, matron in the years 1885-1904 and originator of the Seaside Sanatorium at Loosduinen.

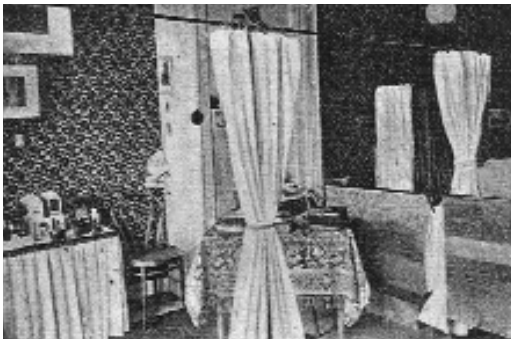
put under the provisions of the Factory Acts. The pay rise, however, that was effected in 1920 as well, appeared to be insufficient and did not to reach the payment level in the municipal hospitals, which naturally had an adverse influence on the turnover of nurses who had just finished their training programs.

Following national developments in the field of nursing, in the Sophia Children's Hospital the nurses' training program also became subject of discussion. Until the mid-1880s, the program mainly consisted of a series of lectures by dr. de Monchy on the most important topics in pathology and bandaging, and the exercising of several nursing procedures and the basics of emergency care. In addition, the hospital's physicians gave the probationer nurses all kinds of useful instructions. A teacher from the First Grammar School for Girls, Miss Mühring, started weekly lessons in 1879 on 'the principles of human anatomy and physiology'. In the mid-1880s, the introduction of Billroth's nursing handbook as well as his anatomical textbook for nurses further structured the training program's curriculum. For the purpose of examinations, the Sophia Children's Hospital sought alliance with the White Cross organization in 1885, as the latter had been conducting a model-training course for nurses in Amsterdam since 1879 and had also developed a satisfactory examination procedure. In the very same year, three Rotterdam nurses obtained the White Cross nursing diploma. Four years later, in 1889, dr. de Monchy decided to take the examination in hand, so that rules were drawn up for the examination and certification of the Rotterdam nurses. A minimum age of 22 years became now a prerequisite to enroll in the Sophia Children's Hospital training program, and the 'probation period' was set at a minimum of two years. The certificate could be obtained after an examination 'demonstrating satisfactory proof of competence and dedication'. A once-only arrangement was made for the nurses already in attendance, providing for a certificate on the condition of regularly attending the lectures for two winters.

A 'specially-formulated diploma' was granted to Matron Simon van der Aa in November 1889. The possession of the house-diploma gave the nurses the right to wear the institutional dress and entitled them to 'all inherent benefits and rights'.

Notwithstanding all these organizational changes, dr. de Monchy still considered 'refinement' and 'self-renouncing love' as the major requirements for a nurse. 'What shall become', thus justified dr. de Monchy his priorities, 'of a child who just at the age when head and heart are to be developed and shaped, is being nursed in a hospital for months or years without schooling and instruction? For when the child has recovered to the extent that it can be discharged, it returns to society suffering from moral neglect, unless some measure of teaching commensurate with its capabilities and a sound upbringing are to go hand in hand with the physical nursing. This is why a children's hospital ought to be a kindergarten and elementary school as well, and for this reason, too, child care cannot be left to those who practice nursing as a paid job; indeed, the nurses should be decent women, dedicating themselves with self-renouncing love and thus with heart and soul to the difficult task of nursing the sick'. In the 1890s this singularity of the care of sick children became the main theme of lengthy debates emanating from the previously-mentioned nationwide developments in the field of nursing. On the one hand, dr. de Monchy, as representative of the Dutch children's hospitals, aspired at upholding this singularity; on the other hand, he also defended that children's hospitals and general hospitals as institutions for the training of nurses should be equally treated. In 1894, this debate resulted in a provisional agreement, which indeed left the door open to the option of following a full training program in a children's hospital. Candidates were now admitted to the examinations after attending the set lectures and on the ground of three years' practical nursing experience, at least one year of which either in a general hospital or in a children's hospital. More than ten years later, in 1906, child care acquired a status of its own with the introduction of a registration procedure, requiring a nurse to gain at least one year's working experience as a qualified nurse in a children's hospital. Legal protection of the nursing certificate was provided for by law in 1921. Children's hospitals with at least forty beds and at least 14,000 nursing days were given the same rights as general hospitals, provided that in the judgment of the Minister the training program would be 'all-round'. This law, therefore, did not bring any changes to the Sophia Children's Hospital with its 68 beds and over 20,000 nursing days in 1921.

The district nursing service run by the Nurses' Association flourished before long in the new building on Westersingel. The number of thirty applications for home nursing accepted in 1878 increased to forty-five in 1881. Most cases (some forty per cent) involved night service; one third of the patients needed continuous nursing, and some twenty per cent day help only. The paucity of nurses after the departure of matron Vorstman in 1881 greatly reduced the capacity in the following years. In the course of 1887, five of the thirteen nurses were active again outside the children's hospital and in 1888 figures reached their peaks with 31 continuous, 22 night, and



Top: nurses in the lounge at Westersingel.
Center: interior of the lounge and dining room.
Bottom: nurses' bedroom.

nine day-nursing services. The number of applications, however, was some fifty percent higher.

The rule book of the Association, drawn up in 1875 after the example of the Amsterdam Nurses' Association on Prinsengracht, mentioned in addition to the above-mentioned services a category of 'in-between services' mainly intended to let nurses assist in home operations on children. The nursing period was bound by a maximum of six weeks. Regarding working hours the rule book stipulated that a day-nursing period lasted from 9.30 to 22.00, and a night-nursing period from 22.00 to 9.30; after every six nights the nurse was to spend one night in the children's hospital. In a continuous nursing scheme the nurses were allowed to be out of the sick room for seven hours within the space of twenty-four hours. Remarkable is the provision that beyond the territory of the sick room the nurse would not be charged with tasks that were not related to nursing. In 1889, 'on the repeatedly pronounced wish of the parties concerned' – and in this case following the White Cross Association, the first district nursing organization in the Netherlands – the board decided to draw up a price list for the nursing services provided by the children's hospital. In order not to violate dr. de Monchy's principle that the Children's Hospital ought to be a philanthropic institution, it was left to the applicants themselves to state 'according to which tariff (A, B or C) they wished to remunerate the nursing services and thus support the institution'. Tariff A for continuous nursing was four guilders, tariff B three guilders, and tariff C two guilders. The tariffs for night service ranged from Dfl. 3.00 to Dfl. 1.50, and for day service from Dfl. 2.50 to Dfl. 1.00. The sum of ten guilders was charged for assistance 'in major operations'.

In these years dr. de Monchy was wont to declare, with ever-increasing emphasis, that interpreting the hospital's tasks in both extramural and intramural care was rather problematic, and not seldom played tricks on the organizational set-up within the institution. 'Maybe', he wrote in the 1889 reorganization proposals, 'it has been from the beginning a venturesome undertaking to aspire to accommodate two philanthropic establishments under one roof, and consequently we have more than once experienced that such a joining of two institutions, which actually ought to be controlled and governed separately, may cause a great deal of trouble and anxiety'. As soon as a 'substantial' district nursing service would present itself in Rotterdam ready to take over the service of the Sophia Children's Hospital, dr. de Monchy would discontinue the Nurses' Association and use the released workers and nurses' living accommodation to introduce facilities for private patients.

Sketching this vista, dr. de Monchy undoubtedly was aware of the decision made by the Netherlands Red Cross to train a nurses' corps in the Coolsingel Hospital for district nursing services in times of peace. The early 1890s witnessed all kinds of initiatives in this field, taken either by the denominational hospitals that were then being established, or by non-confessional private organizations. Of the latter category, the Rotterdam Sanatorium deserves to be mentioned: intended for extramural private patient care, it initiated a district nursing service in 1891. This facility gained independence in 1897, and a Nurses' Home ('Huize Walenburg') was founded

The nursing staff photographed around 1910 in the garden at Westersingel. To the extreme right the porter Hugo Termeeris; in the foreground (wearing a necklace) the matron, sister Emma Brown.

accommodating twelve nurses to be sent out as health visitors. Another district nursing organization was also set up in 1891, on the initiative of Pieter Rudolf Mees (1849-1931); one year later it was remodeled into a Mutual Aid Society, 'consisting of young ladies who visited the poor and primarily took on the task of lending aid to the sick, under supervision of a physician'. Parallel to this development, the activities of the Nurses' Association in the Sophia Children's Hospital were soon curtailed. Around the turn of the century the district nursing service was no longer a major factor within the organization of the Children's Hospital, and the Nurses' Association was mainly seen as basis for the nursing training course. In the course of a reorganization in the 1930s, the Nurses' Association was tacitly wound up.

Finally, the names of two individuals must be mentioned here. Although they played only marginal roles in the hospital's organization, they were nevertheless prominently present in the perception of both visitors and staff. One is Hugo Termeeris (1839-1918), 'the porter grown gray in service', who entered in 1864 and devoted his efforts towards the Sophia Children's Hospital until his death; the other is the houseman C.T. Groeneveld, who started as errand boy in 1919 and in the thirties worked his way up to become prosector in the hospital morgue, where until the mid-seventies he could be found daily. Mentioning these two individuals calls to

mind all those workers who, off the broad paths of history, surely managed to color and accentuate daily life in the hospital.

The patients

Unfortunately the official managerial and administrative sources rarely mention the daily life in the wards of the Sophia Children's Hospital, and the few available details derive from newspapers or accounts by visitors. The above-mentioned story by Wilhelmine (1883) in the *Kindercourant* painted a perhaps too attractive picture of what the Children's Hospital on Westersingel offered its patients. 'The children there get such excellent attendance, and they are given all kinds of things, including wine and assess' milk'. The young visitors in the story were surprised that the children's hospital was not tragic at all, on the contrary. 'Entering the corridor they were already greeted with the sound of happy voices, and the sight of the spacious, bright room reminded them, as they told back home, of a cozy nursery. Only a few of the twelve cots along the wall were occupied; at a long table in the middle of the ward half a dozen boys were playing with toy building blocks and soldiers; one was lying on a couch reading a book, two others inspected a picture book together. To be sure, somebody or other had an arm in a sling, a bandaged head, or a screen in front of their eyes, and some seemed indeed far from recovery, but you could clearly see that despite pain and weakness they all were happy and content. They all looked good-humored, even a small, fragile chappie suffering from a hip disease who had

The domestic staff gathered for a birthday celebration. Photograph around 1920.

already been on his back for more than a year. He was busy putting up an animal garden on a board fixed above his bed, and his great blue eyes beamed with pleasure whenever he managed to make an animal stand'. In the girls' ward things were pretty much the same: 'There, too, was liveliness and mirth. Happy faces everywhere, chatter and laughter all around, which of course tailed off briefly when the visitors entered, though was soon resumed.' A newspaper article written a few years later was closely in keeping with this description, reporting that 'a feeling of well-being sets aglow the heart of the one who from the corridor can hear the merry hubbub of the cackling children's voices in the nearby wards in the daytime, or who after eight in the evening, when the little crew is lying in the arms of Morpheus, strides softly between the rows of white little beds'. This idyllic impression was immediately reduced to more realistic proportions, however, by the 'indescribable feeling of deepest compassion' which the matron managed to evoke by 'recounting the history or describing the affliction of the little patient slumbering there in a few words, in a muffled voice.

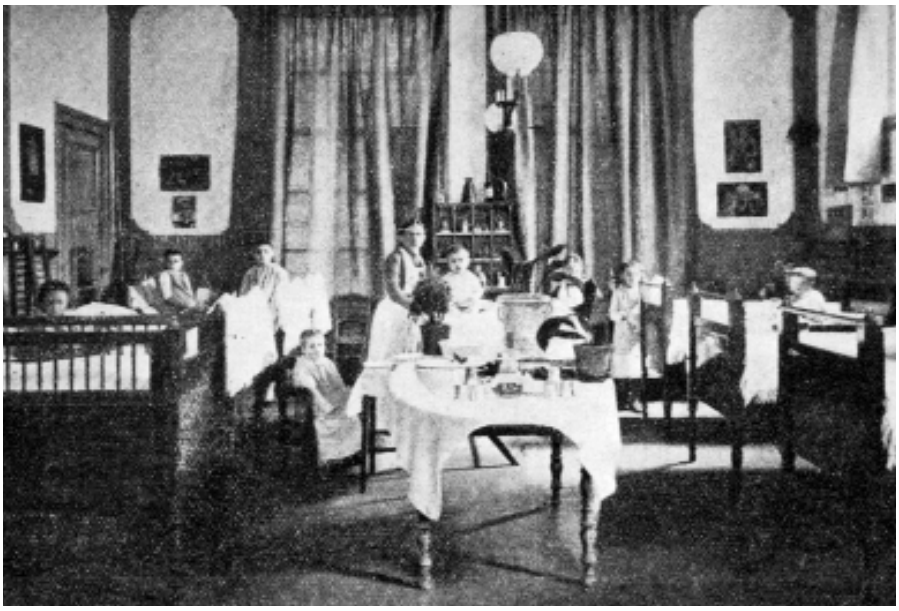
Obviously, this sad counterpart was emphasized in journalistic reports intended to stimulate charity. Thus, shortly after the turn of the century, a journalist narrated how he had halted at a small bed, 'in which a young child was hidden away, the head

Nurses of the Sophia Children's Hospital in after-work costume, wearing the 'house' insignia, photographed around 1925.

wrapped in bandages, suffering from a scrofulous disease caused by malnutrition and poor posture. And when the matron briefly lifted up the blankets, a poor, emaciated little body showed itself, arms and legs wasted so much, that it seemed as if the skin was wrapped loosely around the bones. We dared not', says this informant, 'ask anything, from fear that the answer would confirm our suspicion'. Without nursing care provided by the children's hospital there was no future for these children, and without the financial support by private persons there was no future for the hospital. No one would fail to dip deeply into their purse after having read the story of 'the poor child of a bargeman living with his family in the barge'. 'The child suffered from an inflammation in the cervical vertebra. He was continuously suspended or tied down to a plank, and daily fed by others. However, treatment leading to full recovery would take years, and this is why he was discharged, sent back to the barge. So what will become of this child? Not much. The mother could place him in a chair, but that is not enough, probably he will grow deformed and develop a hunch, maybe he could die'.

The visiting hours were the children's major interruptions of daily routine in the hospital. The rules and regulations provided for the management to settle the visiting times; they invariably stipulated, however, that it was expressly forbidden to bring 'eatables and tidbits'. Money boxes were provided 'in which the parents who are not allowed to bring sweets can deposit savings for the children', the proceeds of which were saved in a deposit book handed over when a child was discharged. The large collection of toys, picture books and reading matter that had been donated over the years, offered ample opportunity for distraction in the daytime. The 'Sunday toys' seem to have constituted a special category. It was the nurses' duty to oversee the children in their playing. As from 1883, one Miss Elfferich, who was willing to keep the toddlers busy at playing 'for a small fee', assisted them.

The annual statistics provide a more objective picture of the patient population than the sketches quoted above. Initially the yearly number of admissions, amounting to some sixty patients around 1880, gradually increased to just over seven hundred (see Figure 1). Next a decline set in that in two decades brought the number of admissions down to under five hundred. In all these years the boy/girl admission ratio remained practically unchanged at almost one to one. A distinct shift in the age categories under five years can be observed in the age distribution of the clinical patients. The proportions of neonates tripled in the years 1885-1915; in the latter year, 27 per cent of the admitted patients was younger than one year. In the same period the proportion of patients aged from two to five years increased from 35 to 48 per cent. The halving of the proportion of older children (from 56 per cent to 25 per cent) shows how over the Westersingel years the hospital's patient profile gradually underwent a radical change, notably on account of the shifting emphasis towards neonatal care. Although the relevant figures are less comprehensive, we may conclude that a similar development pertained to the outpatients departments. As to the geographical origin of clinical patients, the proportion of patients origi-



One of the spacious wards at the rear of the building at Westersingel. The top picture dates from 1895, the bottom one from the years shortly after the 1903-1904 extension.

Patients and staff in a ward at Westersingel, early 1930s.

nating from Rotterdam remained 75 per cent until the turn of the century. When next the hospital enlarged its referral area, the proportion of patients from Rotterdam declined with some ten per cent. A similar shift with regard to outpatients occurred later, with in addition, a distinct difference patient flows to the internal and surgical outpatient departments.

The mean hospitalization period, still exceeding a hundred days in the early 1880s, decreased to some thirty days in the first decades of the twentieth century. (see Figure 1). The increase to just over forty treatment days in the early 1930s is a major marker of the changes in patient population in this period. Quantitatively, however, this upward curve does not fully explain the remarkable drop in number of admissions around 1930. The essence of the problem was undoubtedly rooted in the field of neonatal care, which the Sophia Children's Hospital had attempted to bring to the fore in the preceding years. However, the decline in the number of births in the years of recession; the economic necessity – particularly for the poor – to switch over from bottle-feeding to breast-feeding, owing to which the incidence of nutritional disorders among neonates diminished; and notably the growing number of intra- and extramural health care facilities for neonates in Rotterdam, these are the

Patients and staff in a ward at Westersingel, early 1930s.

factors that consequently hit the Sophia Children's Hospital in one of its core tasks, with repercussions for the organization and the functioning of the hospital as a whole.

Anyhow, it may be concluded that in these years of economic depression the children's hospital found itself as well in a precarious state of affairs. The development of the mortality rate among the clinical patients supports this conclusion. Since the mid-1880s it had long fluctuated around ten per cent. After World War I it increased to some 14%; the decrease to the earlier values in the next years was undone, however, in the 1930s: shortly before the move to the new premises on Gordelweg the mortality rate even exceeded 16 per cent. The noted regression is even more strikingly confirmed by the numbers of patients seen in the outpatients departments, including orthopedics since 1920 (see Figure 2). From 1917 onwards figures for the internal outpatient department drastically decreased: in 1934 it was less than a quarter of the number of patients two decades earlier. The surgical outpatient department, which after dr. van der Hoeven Sr. had left showed a significant – though only temporary – relapse, kept close track of this development between 1914 and 1934.

Neonatal care and neonatal unit

The medical interest in neonates that unfolded around the turn of the century opened a new chapter in the history of pediatrics. In spite of the many problems

associated with the care of sick neonates, the special expertise required for neonatal treatment, and the concomitant increased risk of infection, several general hospitals and almost all children's hospitals decided to set up special neonatal units. As mentioned earlier, the Sophia Children's Hospital, following this development, opened a ward furnished with cribs in 1899. One year later the first incubator was installed in this ward. The number of cribs rose from eight to twelve cribs in 1903, and to eighteen cribs in 1918. An additional ward for ten premature babies was equipped in 1913 in the adjacent house No. 13 Westersingel, bringing the total capacity to 28 neonates. Since 1907, medical care in this unit, taken over from dr. Denekamp first by dr. de Monchy and later by dr. Bakhuysen Schuld, was the special responsibility of dr. Jeanne Amalia Bles (1875-1945), who thus may be called the first neonatologist avant la lettre in the Sophia Children's Hospital. This exceptional woman, who gave her services free of charge, initiated in 1908, together with Mrs. C.C. de Waard of the State Midwifery Training School in Rotterdam, a Green Cross district dry-nursing service aimed at improving neonatal care during the lying-in period.

In the period 1900-1940, the advancement of neonatal care, both intra- and extramurally, remained the major determinant for the changes in the Sophia Children's Hospital. The wider context of this development on a national and an international level does not warrant an elaborate account here. May it suffice to mention the physician dr. Broer Pieter Bernard Plantenga (1870-1955) from The Hague, on whose initiative the first well-baby clinic was opened in 1901, followed by the foundation of the Vereeniging Zuigelingenkliniek (Association Infant Clinic) in 1905. In 1908, dr. Plantenga, together with some colleagues, among whom pediatrician Israel Graanboom (1857-1924) and gynecologist Hector Treub (1856-1920), founded the Netherlands Union for the Protection of Infants. Prevention was considered of paramount importance. The consultation hours, the provision of infant nutrition carefully prepared in so-called dairy kitchens, and the implementation of motherhood courses were some of the most important measures deployed to safeguard and advance the health of infants.

Soon after the turn of the century various initiatives aimed at infant welfare and health were taken in Rotterdam as well. In the neighboring village of Bergschenhoek, a number of dignitaries, among whom the newly appointed Medical Director of the Sophia Children's Hospital dr. de Monchy and the Rotterdam-based internist dr. Gabriël Hermanus Moll van Charante (1872-1947), opened the Hygienic Milking Shed De Vaan in 1909. This establishment supplied milk produced under optimal conditions, and application of 'a surgical asepsis in the hygiene of the cow-house', carefully monitored as to composition and uncontaminated with the bovine tuberculosis bacillus. Since then general practitioners and pediatricians recommended and prescribed the so-called 'Vaan milk' as the ideal infant formula. A year later dr. Moll van Charante is mentioned as secretary of the Rotterdam Society for the Protection of Infants, which had been instituted in April 1910 aiming at 'improvement of the living conditions of infants, and pre-eminently indeed to fight child mortality and to prevent that healthily-born children owing to malnourishment or

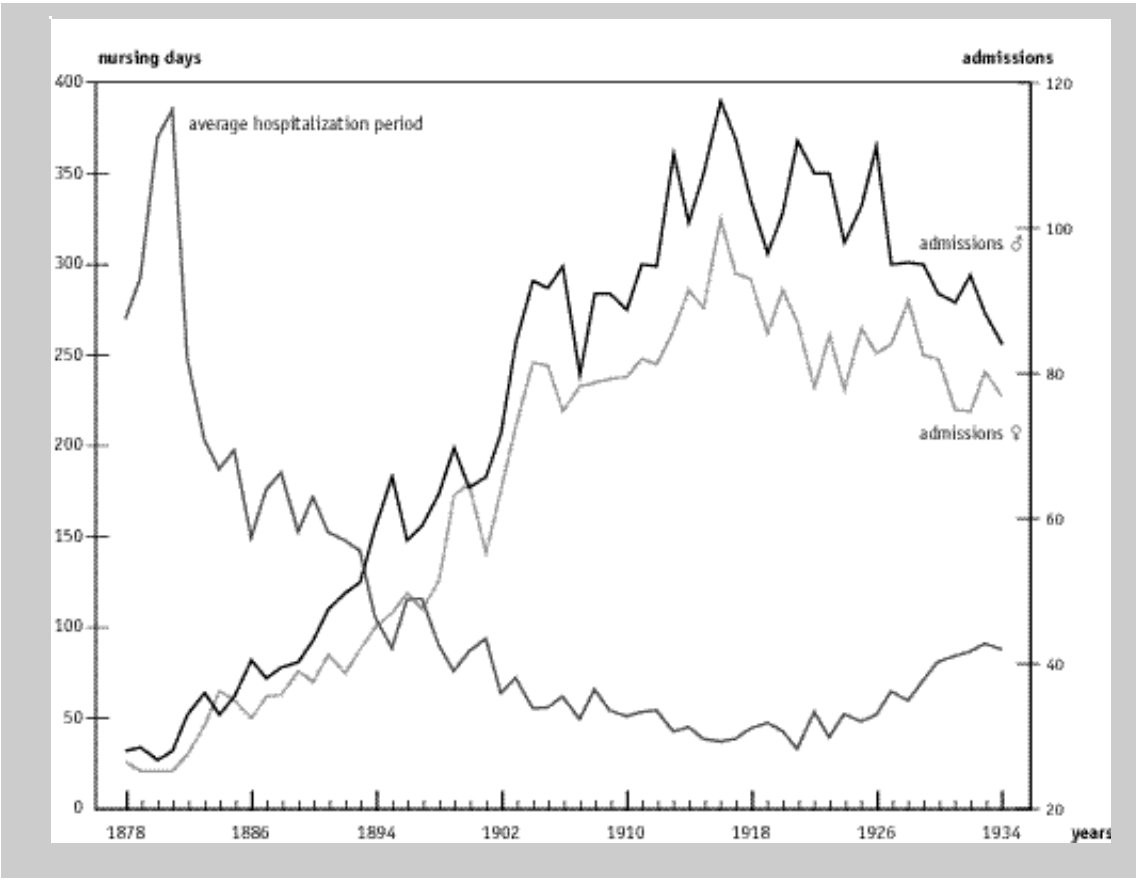


Figure 1: Graphs showing the yearly number of boys and girls, respectively, admitted to the Sophia Children's Hospital from 1878-1934, as well as the mean hospitalization period.

injudicious treatment should grow into delicate creatures'. In this capacity dr. Moll van Charante played a key role in the further development of neonatal care in Rotterdam, leading in 1934 to the foundation of the Vereeniging Sophia Kinderziekenhuis en Zuigelingenkliniek (Association Sophia Children's Hospital and Infant Clinic), of which he became the first president.

The Rotterdam Society for the Protection of Infants started its activities on 2 July 1910 with a well-baby clinic on Goudschesingel (No. 239), where daily consultations were given 'by a physician who provides advice and support regarding the nutrition and care of infants from the poorer classes and regularly checks on their growth in the first year of life'. A qualified nurse visited young mothers in the neighborhood, instructing them how to take care of the baby and, if necessary, urging them to switch to breast-feeding. In case this was impossible, the health center provided for-

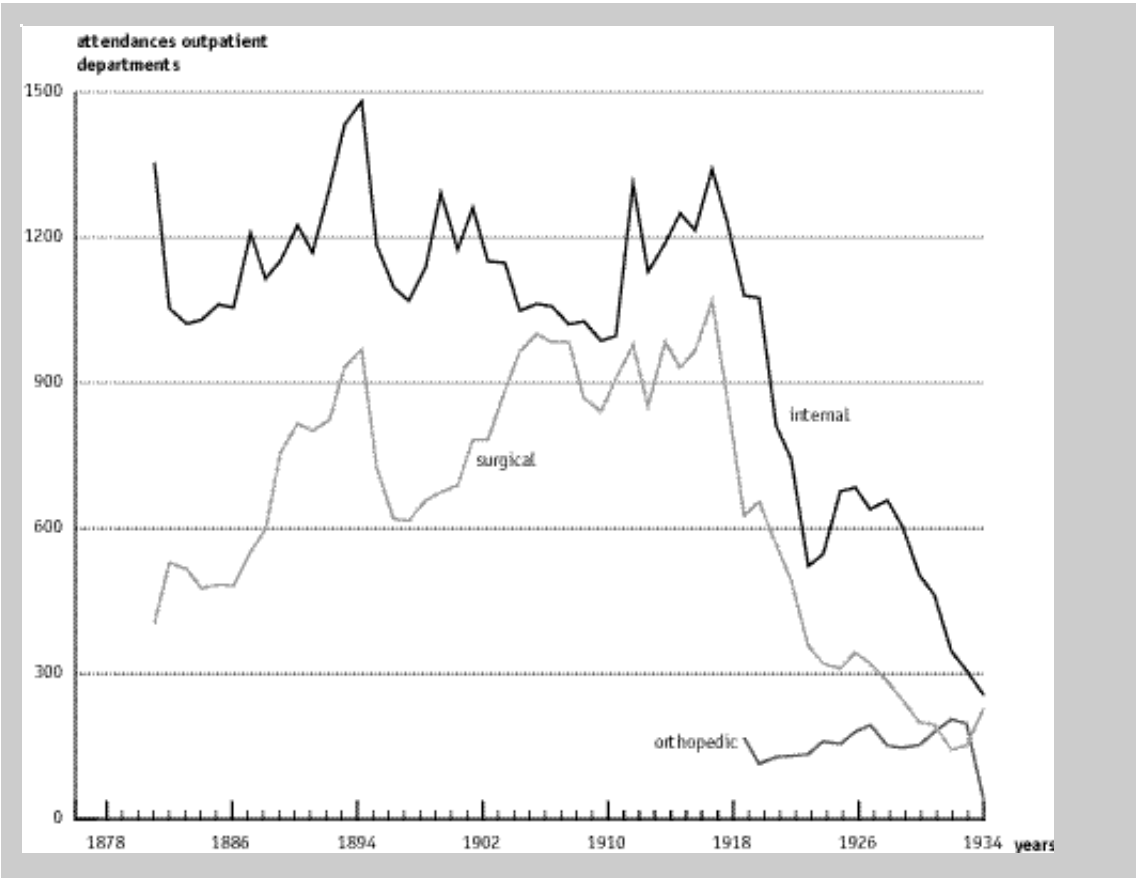
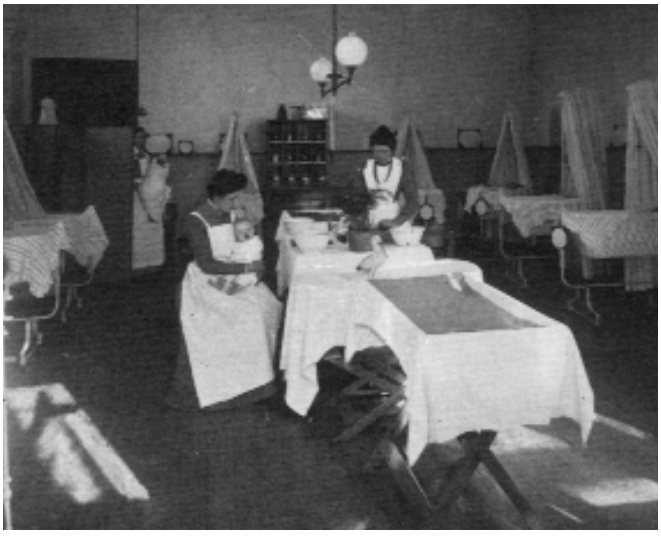


Figure 2: Graphs showing yearly attendances to the internal, surgical and orthopedic outpatient departments of the Sophia Children's Hospital, respectively, from 1878-1934.

mula feeding prepared in the health center's dairy kitchen that was installed in August 1910. The district workers closely collaborated with the local midwives and with the Rotterdam District Nursing Association, whose sphere of activity was naturally restricted to new mothers. Moreover, motherhood courses were organized 'where the preparation of buttermilk and soup was instructed', and a weighing unit enabled breast-feeding mothers to check on the results of their feedings. In the first two years the clinicians experienced major organizational problems caused by the onrush of sick infants. It is no accident that this should coincide with an episode in Dutch pediatrics characterized by extreme infant mortality, and in which the medical journals paid great attention to the possible causes of this mortality and ways of improvement. In June 1911, dr. Hendrik Albert Stheeman (1864-1941), the clinic's first Medical Director (who later became the first Medical Director of the Juliana



The pediatrician dr. Jeannes A. Bles, who supervised medical care for neonates in the Sophia Children's Hospital since 1907.

Top left and bottom: the neonatal unit in the Sophia Children's Hospital at Westersingel. Top: this photograph dates from gaslight days; bottom: this photograph shows the cubicle in which newly-admitted neonates were kept under observation.

Children's Hospital in The Hague) decided to admit only sick infants referred by general practitioners. This situation, in which the well-baby clinic actually functioned as an outpatient department, continued for six months. In December 1911, partly at the insistence of the general practitioners in Rotterdam, it was reinstated to its original function, providing consultation hours for 'healthy' infants only.

In May 1913, the Rotterdam Society opened a second well-baby clinic on the left bank of the River Maas (Stieltjesstraat), headed by dr. Anna Francisca Alida Susanne van Westrienen (1883-1958), who thus made her entrance into the Rotterdam world of pediatrics, in which she would play a prominent part for more than four decades. On 18 February 1914, with the approval and cooperation of the Medical Director of the Sophia Children's Hospital, the first floor of the premises became home to the Association for the Mutual Protection of Women, providing accommodation for twelve babies. Because it admitted sick infants as well, this institution may be considered the first baby clinic in Rotterdam. In the early 1920s the Rotterdam Society for the Protection of Infants reached a breakthrough in convincing the authorities that the Society, as a private organization, was well-suited to execute the plans for a network of municipal health centers, provided it was given financial support. Hence, throughout Rotterdam half a dozen other health centers were opened in the 1920s. The new Area Health Authority, instituted in 1919, was a driving – and soon also dominating – force in this development, with all its consequences for the evolution of intramural infant care in the 1930s. The Rotterdam Society during this decade was mainly engaged in a discussion about the future of the Infant Clinic (more to follow) and in arranging to make toddler care independent. After introducing special consultation hours for toddlers in 1933, the board decided to depute this activity to the Society *Kleuterzorg* (toddler care), which, however, proved not viable and was dissolved in 1938. Denominational segregation was another substantial problem the Society had to contend with. In 1932 the Roman-Catholic segment manifested itself in the field of infant care by opening an Infant Health Center on 230, Goudsesingel, not far from the one run by the Rotterdam Society. The Protestant equivalent did not develop until after the Second World War, and never reached the extent of its Roman-Catholic counterpart.

In 1910, dr. de Monchy had openly welcomed the foundation of the Rotterdam Society for the Protection of Infants, stating that this institution was an important addition to the activities of the Sophia Children's Hospital. 'While the new Society is directed at prevention of diseases of infancy, by instructing the mothers, and if necessary stimulating them through temporary assistance, to suckle their newly-born babies themselves, which until now seemed impossible, our institution will attend only to those infants who need to recover from diseases caused by malnourishment. As soon as their condition allows them to be taken care of by their mothers, the little ones will return home, though they may still be kept under observation from the outpatient department'. The aspirations of the Rotterdam Society in the field of intramural infant care, already mentioned in the bye-laws, did as yet not obstruct

The neonatal unit of the Sophia Children's Hospital in 1921. The photograph was apparently taken on the occasion of a jubilee, witness the shape in which the paper chains are suspended from the cots: '1901-1921'.

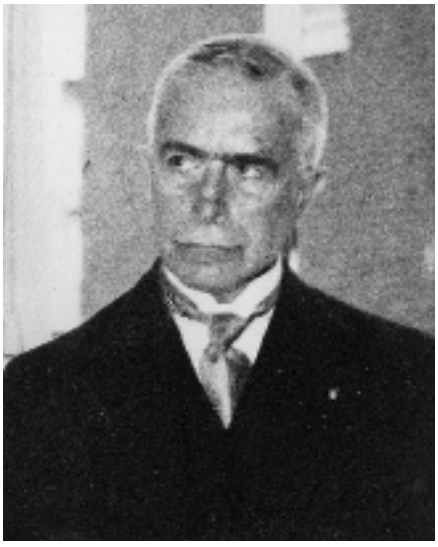
the good relations between the two institutions, as realizing this objective was understood to be a joint effort.

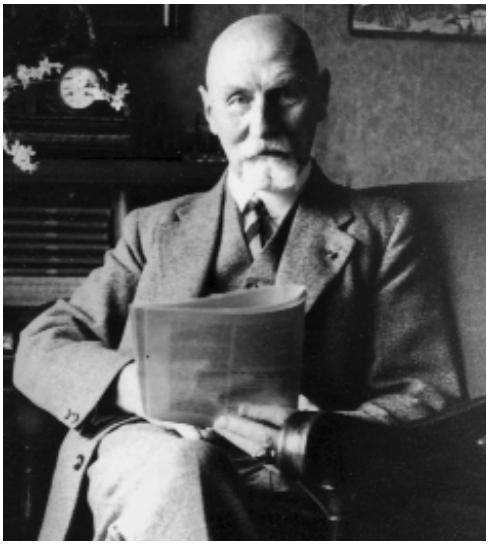
In 1912, the Rotterdam Society announced to be convinced 'that our aim, to preserve insufficiently protected infants from nutritional and developmental diseases and to have them begin their second year of life as healthy children, could only come to fruition if we are able to sustain an infant home where children with serious nutritional diseases can be received'. Thus the Society was to follow the example of dr. Plantenga's health care center in the Hague, and was in fact also to comply with an appeal for the foundation of such an infant clinic (*cum* employment agency for wet nurses) published by the Rotterdam pediatrician dr. E. Teixera de Mattos (1865-1929) as early as 1902. In the course of 1914 execution of this plan was intensively discussed with a special committee from the Sophia Children's Hospital, but as the deliberations came to a deadlock in June 1914, the Rotterdam Society decided to let the matter drop for the moment.

Business was resumed in July 1917, when the health care center moved to a former school building, situated on Goudschesingel as well (No. 49). The consultation rooms, the weighing-room, and the dairy kitchen found a place on the ground floor, as well as a spacious waiting room in an extension opening out onto the garden. The second floor provided living-in staff accommodation. The first floor was ideal to realize the plan for an infant clinic, though on a much smaller scale than was originally intended. This modest start was even considered to be advantageous, 'in order to thus obtain some experience in the upkeep of an establishment of this kind, and to get acquainted with the requirements for the building of a future clinic'. For the

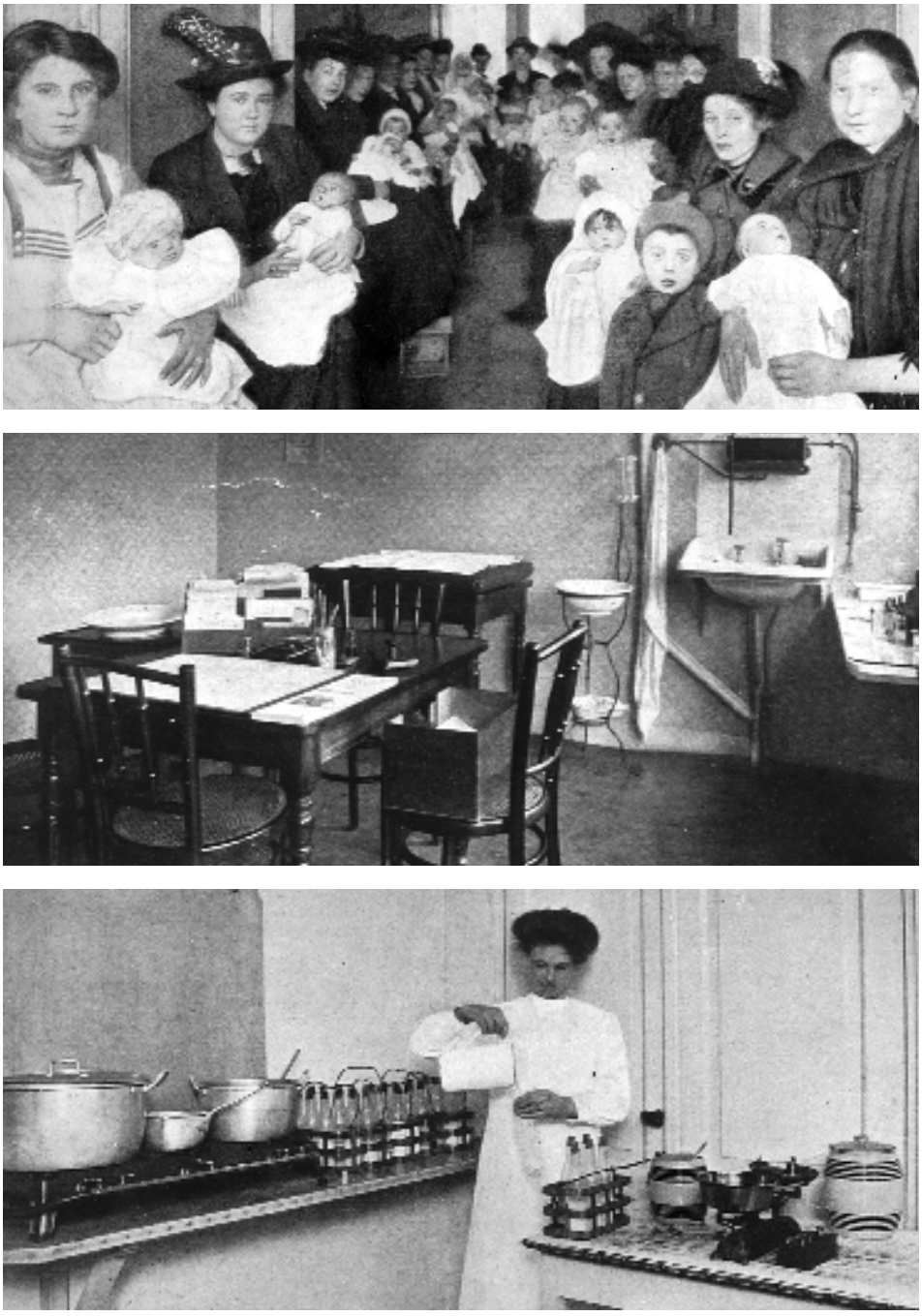
time being one had to content oneself with a ten-crib ward, a bathroom, an isolation room with two cubicles, and an incubator room. Equipped with electricity, central heating, telephone, and 'hot water on all floors', the building fulfilled all requirements of comfort. The new Infant clinic was inaugurated at an official gathering on 13 November 1917, in which the chairman, dr. Hendrik Karel de Haas (1873-1953), presented a historical overview of the Rotterdam Society, and the Medical Director of the children's hospital in Utrecht, dr. Jacob Haverschmidt (1862-1938), delivered a speech 'on the nourishment and the care of the infant, and the changes in views on the subject in the course of years'. The Sophia Children's Hospital was represented by dr. de Monchy only; the other pediatricians and the board with their absence clearly demonstrated their dissatisfaction with the decisiveness of the Rotterdam Society and the fact that it went ahead separately.

Medical care was consigned to the pediatrician dr. Frans Marie Cornelis Hengeveld (1883-1963), who had been appointed Medical Director to replace dr. Stheeman in 1912. In the first few months the clinic was confronted with insurmountable problems, mainly of an organizational nature. In July 1918 it was even closed for a while. When business was resumed, twelve cots were occupied and three probationer nurses assisted the new matron, sister H.J. Vermazen. In the following years the Infant clinic continued to expand, counting 22 beds in 1934. The numbers of admissions and patient days stabilized around ninety patients and five thousand days, respectively, in the 1920s. The death rate among the admitted patients remained unabatedly high, amounting to some twenty per cent over the whole period. Little





Left: dr. G.H. Moll van Charante, secretary of the Rotterdam Society for the Protection of Infants, and the first president of the Association Sophia Children's Hospital and Infant Clinic. Right: dr. H.A. Stheeman, the first medical director of the infant health center of the Rotterdam Society for the Protection of Infants



Interior scenes of the infant health center at 239, Goudschesingel, photographed in 1913. Top: waiting-room; center: consultation room; bottom: dairy kitchen.

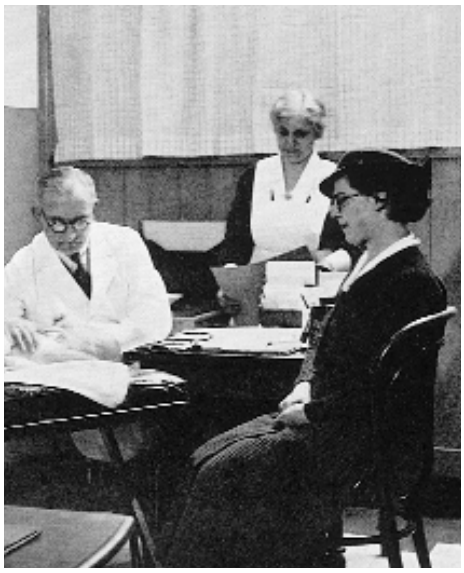
was added to the range of equipment. In 1925, a quartz-iodine lamp was purchased for the treatment of rachitic children. The small room fitted up for this purpose appeared to be unsuitable, however, primarily because the ozone could not be discharged properly, and moreover, the regular consultation hours were already interrupted too often. In the same year, therefore, the upper flat of the adjacent house (No. 47, Goudschesingel) was rented, offering room to accommodate more staff as well. By partly pulling down the dividing walls on the first and second floors it was eventually integrated into the Infant Clinic. In 1930 the entire first floor of No. 47 was converted to a cubicle ward for eight cribs. The sunlamp treatment room was next moved to the former barroom of a cafe on the other side of the street. (No. 32, Goudschesingel). This also became the venue for special consultation hours for children with speech impediments and for motherhood courses.

At the time when the Infant Clinic started there was already a plan 'to have this clinic provide practical instruction in the nursing of infants to young girls, who were to obtain the necessary theoretical knowledge in a course of lectures'. When the nursing training system was regulated, the clinic maintained its role as a teaching center and was officially recognized in 1930. In addition, probationers from various educational institutions, notably from the 'School for Women's Labor', were given the opportunity to gain practical experience with dry nursing and childcare. gave the theoretical lessons at this school were given by the clinic's nursing director. Furthermore, qualified maternity nurses who wanted to establish themselves as 'infant nurses' also attended the clinic, and a collaboration with the 'School for the training of lady teachers for child education and child care' had been created. In 1921, dr. van Westrienen took the initiative to organize a course on nutritional disorders in infants, intended for consulting physicians in the health care centers, and for interested general practitioners. This course, for which other lecturers, such as the well-known Leyden professor of pediatrics Evert Gorter (1881-1954), were invited as well, was still a great success in the early 1930s.

Forces combined

In the course of the 1920s, relations within the local healthcare system underwent drastic changes. Private enterprise, which had created numerous intramural and extramural health care facilities around the turn of the century, had owing to the economic recession entered a new phase, in which public funding became an significant precondition for the continuation of activities. The authorities now took their chance to tighten up control, and to attain better coordination between private and public facilities in particular. Their measures regarding the hospital system concentrated on the allotment of so-called council beds in the private hospitals and on having the Local Health Authority organize hospital admissions.

Waiting-room (top) and consultation room (center) of the infant health center at 49, Goudschesingel, photographed in 1918. Bottom: matron with the heads of the health centers and infant care workers, 1935.



Left: The building on 49, Goudschesingel, accommodating the Infant Clinic of the Rotterdam Society for the Protection of Infants since 1917. Right: the medical director of the Infant Clinic, dr. F.M.C. Hengeveld, giving consultations at the health care center.

Against the background of the geographical, demographic, social, and economic development of the city during the three quarters of a century that had passed since the foundation of the Children's Hospital, the number of hospital beds at an almost six hundred thousand population (1930) had grown to over three thousand, some seventy per cent of which were under municipal supervision. Besides the Coolsingel Hospital, a second municipal hospital (Bergweg) had been operative since 1908. In 1919 it was decided to build a third one, south of the river Maas, which, however, was not taken into use until 1939. To fill the shortage of council beds the municipality set up several auxiliary hospitals, some of which exclusively for patients with infectious diseases. A special isolation complex spring up after an outbreak of alastrim in 1929. Jewish people could be treated in the Israelite Hospital; Protestants had a choice of three hospitals: Bethesda, Eudokia and the Deaconesses' Institution; and the Roman-Catholics could turn to the Saint Franciscus Hospital. Moreover, Rotterdam counted a general private hospital, two eye hospitals and a Hospital for Ship's and Tropical Diseases. With the exception of the Bethesda Hospital, which remained small-scaled, all these private institutions disposed of new accommodations with state of the art equipment, especially with an eye to treating and nursing private patients. Apart from the hospitals, all kinds of extramural categorical institutions and outpatients facilities had come into existence, and where representatives of the various specialties gave consultations. The *status quo* of the hospital system in Rotterdam around 1930 is detailed here for the facilities for infants and children

The Infant Clinic in 1935: in the ward of the clinic (top), matron J. Mooy with the nursing staff (center), and an isolation cubicle (bottom).

only. With 127 beds allocated to pediatric patients, the Coolsingel Hospital constituted the largest child care facility, almost twice as large as the Sophia Children's Hospital, which in 1930 counted 72 beds: 18 for internal medicine, 36 for pediatric surgery, and 18 for neonates. The Bergweg municipal hospital and the Raampoortlaan auxiliary hospital offered another 38 and 72 council beds, respectively, for this category of patients. Apart from the Sophia Children's Hospital and the Infant Clinic, five other private hospitals had children's and/or neonatal departments with in total 98 beds: the Saint Franciscus Hospital (10), the Israelite Hospital (12), the Eudokia Hospital (44), the Deaconesses' Institution (14) and the State Maternity Ward (18). Medical care in these pediatric departments was consigned to the physicians (internists) in these hospitals or to the general practitioners and specialists who had access to the public hospitals. Pediatric care in the year 1930 was largely in the hands of general practitioners; the 1930 Rotterdam address book lists only seven physicians as pediatricians. None of these confined their professional activities to one of the above-mentioned hospitals; most of the time they practiced at home or in one of the many outpatient clinics found throughout the city. Of the treatment centers and categorical institutions, three are mentioned here: the Finsen Institution, the Rotterdam Sea Hospitium at Katwijk aan Zee, and the Adriaan Foundation. The first, founded in 1904 by the Netherlands Association for the Combat of Lupus, provided treatment to children with skin tuberculosis. Since 1908 the Rotterdam Sea *Hospitium* added accommodation to that available in the Sanatorium run by the Sophia Children's Hospital at Loosduinen. The Adriaan Foundation opened its doors in 1914, and was intended for the (orthopedic) treatment and care of physically-handicapped children and adults.

The entanglements around the new building plans for the Sophia Children's Hospital and the Infant Clinic fit easily in this brief enumeration. After the abortive attempts to establish a cooperation between the Sophia Children's Hospital and the Rotterdam Society for the Protection of Infants in 1914, the latter institution had independently continued to develop a building plan. In 1919, two substantial donations raised the building fund of the Rotterdam Society to over one hundred thousand guilders, but this was still not enough to implement the plans. Municipal subsidy proved to be a prerequisite for the realization of a new clinic. A major step in the right direction was the town council's resolution in November 1921 to cooperate with the Society in setting up a network of infant health care centers – the new clinic was not mentioned, however, in the agreement made at the time. Unexpectedly, this subject came in the picture again in May 1924, when the council proposed to donate Dfl. 20,000 for the acquisition of a building site. An agreement was concluded in March 1925, to the effect that within three years the municipality would offer a half-hectare site ready for building. At the initiative of Mrs. C. Dutilh-Mees, one of the board members of the Society, communication with the board and directors of the Sophia Children's Hospital was now re-established. A new declaration of intent was thereupon drawn up in 1928, articulating one's willingness to collaborate in the building of the new hospitals. However, when the municipality finally came up with

a building site in the Blijdorp district, at the end of December 1930, long after the stipulated three-year period had elapsed, the board of the Sophia Children's Hospital saw reason to dissociate itself from this choice. Situated at the extreme northern boundary of Rotterdam, this location was judged to be disadvantageous for the outpatients department, which just in these years was facing declining attendance. Early February 1932 the Rotterdam Society decided to continue on its own and accepted the proposal of the municipality. Before long a building committee was installed, and the Amsterdam-based architects C.B. Posthumus Meyjes and J. van der Linden were commissioned to design 'a modern clinic … with the avoidance of all unnecessary luxury'.

In this state of affairs, Johannes Elias Feisser (1884-1941) entered the Rotterdam stage of pediatrics at the end of September 1932. After his medical finals (1913), dr. Feisser was a general practitioner in Kloetinge and Kattendijke, before going to Groningen in 1917 to train in pediatrics. In 1927, he became medical inspector for 'infant protection' to the South-Holland Association 'The Green Cross', in which position he was intensively involved in the organization and the functioning of infant health centers in a rural area. As advisor to the Local Health Authority at Gouda he integrated infant health centers with the school health center, so that a child between birth and finishing primary school could be followed preventively by the same physician. Dr. Feisser had been appointed managing director of the Rotterdam Local Health Authority in March 1931. In view of this career Feisser's involvement in the building plans of the Sophia Children's Hospital and the Society does not come as a surprise. Cutbacks and collaboration, the two catchwords that characterize dr. Feisser's directorate, proved to be easily reached objectives in pediatric intramural health care in Rotterdam. At his request a merger-committee was installed whose aim was to study the building of 'a modern, well-equipped Children's Hospital, in which the Infant Clinic was to take an important place'. Remarkably, as early as this stage the previously mentioned Leyden professor of pediatrics E. Gorter advocated that 'such a hospital should also provide for the practical training of medical students'. Although the Society found it hard to part with the plans that had already gone under way, the board on 12 January 1933 decided to make yet another attempt at collaboration.

The only hurdles still to be cleared were raising the necessary building capital and assuring the future upkeep. The building funds of both the Sophia Children's Hospital (ca. Dfl. 150,000) and the Rotterdam Society (ca. Dfl. 250,000) were absolutely insufficient, especially after the financial crisis of 1929, to realize a children's hospital-cum-infant clinic. The solution for this problem was provided in 1933 by the Foundation for the Advancement of Popular Strength, established 'by testamentary disposition' of Mr. W.S. Burger (1852-1933) and intended 'to promote social and cultural activities in Rotterdam'. Thanks to generous financial support from this fund the available building capital rose to Dfl. 637,000, which even

The children's department in the Coolsingel Hospital, around 1920.

exceeded the estimated costs. In February 1934, after much debate, the second financial obstacle could finally be cleared thanks to the municipal council's pledge to stand surety for the exploitation of 120 (of the total 140) beds and cots, provided that the Municipal Health Service would see to their occupancy and would be allowed to fix the corresponding nursing fees. Naturally the upkeep of pediatric beds in the municipal hospitals was an important consideration for the local authorities, but eventually it seemed to be safeguarded by the decision to close the children's department in the Raampoortlaan auxiliary hospital.

'Considering that for years and years both Societies have felt the need for a new building and that it has become clear that fulfillment of this need – also in view of the requirements of the Municipality of Rotterdam – within the foreseeable future is only possible if both Societies are to fully cooperate to this aim', the boards of both merging parties undersigned on 1 August 1934 the notarial deed in which the Society 'Sophia Children's Hospital and Infant Clinic' was instituted. According to the articles of association the objective of the new organization was 'to obtain, to maintain and to run one or more hospitals and infant clinics, to perform and to advance anything that may serve to better the health of infants and older children, and anything which in some respect is related to the foregoing'. Although the training of nurses was still mentioned as a separate aim, the existence of the Nurses' Association was passed over without comment. All attention was now focused on realizing the new building and on the further development of child medicine within the new accommodation at Gordelweg.

The seaside sanatorium 1888-1943

Since the middle of the eighteenth century the salubrious effect of seawater, in particular in 'glandular' conditions, such as tuberculosis and scrofula, was generally recognized in the medical literature. In the course of the nineteenth century, this notion rose in importance owing to the renewed interest in quality of the air, as a decisive factor for the preservation and recovery of health. Advocates of healthy air did not only bring up the harmful influence of stale air in sick rooms and hospital wards, but also the damaging effects of living in buildings and towns that were inadequately ventilated. Particularly chronic disorders resulting from afflictions of the respiratory organs were thought to benefit from a stay in woody surroundings, in high regions, or at the seaside. In the second half of the nineteenth century this conviction resulted in establishing all kinds of convalescent homes, state-subsidized holiday camps for children, and seaside hotels in the Netherlands as well. The first convalescent home (Bethanië) intended for 'enfeebled children' was opened at Zeist in 1873. Two years later the 'The Hague Sea and Bathing Establishment for Children of the Poor' opened a shed at Scheveningen. In 1880, this organization opted for the name Sophia Foundation and realized a new seaside sanatorium in the same year. The Amsterdam Children's Hospital opened a seaside branch at Wijk aan Zee in 1884. Like the establishment at Scheveningen, this branch was in use only during the summer months.

The medical officers in the Sophia Children's Hospital were scrupulously watching this development. The initiative of the sister-organization in Amsterdam and notably the reported activities of colleagues abroad, such as the previously mentioned pediatrician Charles West, who since 1868 headed a branch of the Great Ormond Street hospital in Brighton, and the French physician Jean Felix Rochard (1808-?) who in 1872 published his *Project de création d'un hôpital sur l'eau* (Project to found a seaside hospital), stimulated dr. de Monchy to try and realize a seaside facility for the Rotterdam children's hospital as well. The Billroth-verandah, fitted out in 1887, was the first sign that the medical discussion about the wholesome effect of fresh air was going to be crystallized. A year later dr. de Monchy surprised his audience at the Sophia Children's Hospital anniversary meeting by announcing that the Board, by courtesy of an unknown lady from Loosduinen, had acquired 'a facility enabling our patients to enjoy the sea air'. Details were not given, but insiders knew that the benefactor referred to was no one else than the matron, Mrs. Simon van der Aa.

Dr. de Monchy himself rather preferred to set up a branch at Hook of Holland, which was easily accessible by train. Now the institution at Loosduinen was presented as a gift, however, he did not want to refuse. Nevertheless, he fervently wished to do away with the practice of using seaside homes just during the summer months. In 1890, in an elaborate discourse on the medical benefits of a seaside sanatorium, he wrote that 'a few months on the sea is not enough to attain the recovery of such serious chronic illnesses [referring to surgical tuberculosis, v.L.]. This is why the

Left: Mr. J.E. Feisser, who in 1934 negotiated the merger between the Sophia Children's Hospital and the Infant Clinic. Right: Mr. W.S. Burger, whose legacy enabled to realize the Gordelweg Hospital.

seaside homes which are open only during the summer months, only in part serve the proposed purpose of staying on the sea. Such institutions are holiday homes rather than hospitals; they are excellent for convalescent children or patients with mild forms of scrofula, anemia and rickets, but for serious chronic cases, who are usually and rightly refused, they are quite inadequate. That which we imagine our home at Loosduinen to be, is something utterly different. We desire to furnish a genuine seaside hospital that will remain open for the entire year, where the little patients, like in the hospitals at Beck-sur-mer, Middelkerke and other places, continue to receive nursing care until they have fully recovered. ... We, therefore, wish to join the movement that manifests itself throughout Europe advocating the institution of seaside hospitals, a movement that does not spring from a sickly mentality, but results from the claims of modern science. If our hospital is to follow its vocation, we must use all available resources to give the little patients who are commended to the institution not only loving care and concern, but in addition we should attempt to fully cure them in the shortest possible time. And we can only act up to our duty if we are afforded the opportunity to transfer severe cases of scrofula as well as tuberculosis patients to a seaside branch'. Dr. de Monchy in fact advocated the establishment of a 'sanatorium', a type of institution which in the Netherlands was not incorporated in the intramural health care system until after the turn of the century.. This ambition could be realized in 1892 thanks to Mrs. Simon van der Aa's generous gesture and the financial support from a ladies' committee. The building of 'a neat, small hospital with room for 24 beds' began in the summer of 1891 on top of one of the highest dunes not far from the Kijkduin bathing establishment. On 24 June 1892, the new building, bearing the telling inscription *Kinder-ziekenhuis* (Children's Hospital) was inaugurated at an official gathering.

During the nearly fifty years of its existence the building underwent hardly any changes. The high maintenance costs, and especially the repair of storm damages, left no financial room for major renovations. Nevertheless, a rest-ward for six patients was put up in 1912, and shortly afterwards the building was connected to the municipal electricity network. A playroom and a sun-treatment room were furnished in 1926, as well as a verandah. Moreover, the whole building was fitted out with central heating.

In the first two decades the number of patients gradually increased, from 44 in 1893 to 101 in 1911. The hospitalization period strongly varied in this period, with a mean of some ninety days. During the First World War and in the 1920s the number of patients stabilized at around ninety per year, and the mean hospitalization period continued to fluctuate between fifty and sixty days. While in the thirties the number of patients dropped with some ten per cent, the main hospitalization period reached a length of about three months. These shifts must be seen against the background of changing indications for admission. Apart from patients with scrofula or tuberculosis, who often had severe fistulas and ulcers, patients with asthma and other chronic disorders of the respiratory organs were soon sent to the sanatorium as well. Although the precise trend cannot be reconstructed for want of medical-statistical surveys, stray reports indicate that eventually the latter category began to replace the tuberculosis patients. In 1926 the directors, having concluded that the Loosduinen convalescent home was unsuitable for the treatment of lung tuberculosis, even resolved no longer to admit patients with this condition. Indeed, the extra facilities for outdoor treatment created in the main building in Rotterdam, such as the resting places on the roof, realized in 1918 'for surgical tuberculosis children who need to absorb the healing heat of the sun', offered enough relief in many cases and made the need of the seaside sanatorium less urgent. Although the activities developed by the Rotterdam Society for the Fight against Tuberculosis since 1908 are hardly touched upon in the reports of the Sophia Children's Hospital, these were undoubtedly instrumental in decreasing the number of tuberculosis patients. This society kept a big sanatorium at Katwijk aan Zee, which admitted and treated notably children from Rotterdam, from sections of the population with an increased risk of tuberculosis, and children with beginning tuberculosis. In 1934 the Children's Sanatorium Zeehospitium Sint Jozef, which was run by the Catholic Rotterdam Society for the dispatch and care of tuberculosis patients, opened its doors at Hook of Holland.

A second development affecting the function of the seaside sanatorium was related to its financial basis. The necessity of having to take in paying patients as well was increasingly detrimental to the original set-up, being a branch of the city hospital. In 1896 it was even decided, in view of the precarious financial position, to admit as many paying patients as possible. Other hospitals too, such as the Wilhelmina Children's Hospital in Utrecht and the Deaconesses Hospital in Amsterdam, used this possibility of admitting chronically ill children. In 1915 the Sophia Children's Hospital arranged to treat 'impecunious children from the province of South

The Seaside Sanatorium at Loosduinen, opened in 1892. In the background the Kijkduin public baths.

Holland' at 'the extremely low rate of Dfl. 0.50 per day'. This development further dissociated the Sophia Children's Hospital and the seaside sanatorium.

From the very start, medical care in the Loosduinen sanatorium was in the hands of the local health-resort physician dr. Johannes Hendrik Perk (1848-1903), who together with dr. de Monchy is counted among the pioneers of Dutch pediatrics. In 1903 he was succeeded by dr. Henri Mulder (1869-1914); after 1911, this position was consecutively held by the Loosduinen physicians L.D. Ornstein (1873-1948), A.Th. Snijder (1878-1939), and H.A.N. Vechtman (1883-1949). Initially, the nursing staff numbered only two nurses under supervision of a matron. In 1918, it was decided to take on a married couple as porter and housekeeper, and extra nursing staff was enrolled as well. In the mid-thirties the nurse's corps at Loosduinen counted nine nurses. The frequent changes in the matron's position occasioned Mrs. Simon van der Aa to take it upon herself, after which a decade of order and quiet followed. Her successors (the ladies T. Borcherts, J.M. van Rijn and L.E. van der Ham) also stayed on for longer periods, in contrast to the nursing staff, which showed a substantial turnover. The remote location of the sanatorium and the small nurses' rooms that offered little privacy, appeared to be the main causes of this rapid turnover.

In the midst of all entanglements around the merger of the Children's Hospital and the Infant Clinic, and during the turbulent years when a new hospital was being built on Gordelweg, the sanatorium gradually disappeared into the margin of public interest. The 1928 decision to separate the administrations of the Children's

Hospital and the ZH strongly reinforced this trend. The accounts relating to the Loosduinen branch also disappeared from the annual reports. Not until 1936, when the Children's Hospital and the Infant Clinic had already gone together for two years, arose the question whether the sanatorium had to be included in the new combination. As the new board was 'too full-handed' with overseeing the building and furnishing of the new children's hospital, the former board of the Sophia Children's Hospital was requested to continue administration of the sanatorium for the time being, which in fact meant that it was kept outside the 1934 merger.

Apart from some involvement in personnel management and in constructional and technical facilities, this managerial accountability carried hardly any commitments. This situation changed in the years of the German occupation, when the German army put strict constraints to the use of the coastal area, which consequently affected the sanatorium. Evacuation was inevitable, the more so because an airport was projected at less than a hundred meters distance, whereupon several members of the board argued to discontinue the institution. At the urgent instance of dr. Siegenbeek van Heukelom, however, an alternative accommodation was sought at the end of 1940, and the sanatorium was evacuated to the premises 23, Johan van Oldenbarneveldtlaan in The Hague. Shortly after dr. Siegenbeek van Heukelom's death (1941) the plan of closing down was brought up again, now seconded by dr. van Westrienen, who advised to close the institution on the grounds of unfavorable medical results. Even then, however, the former board of the Sophia Children's Hospital dared not take this final step. Yet when in 1943 the German occupational force ordered to vacate the premises on Van Oldenbarneveldtlaan, there was no other choice. The original building had been irreparably damaged by the German *Wehrmacht*, and alternative locations at Breda, Driebergen, and Bilthoven appeared to be unsuitable for a new start of the former seaside sanatorium. In August 1943 it was officially decided to discontinue the activities and thus, after more than half a century, the history of the Loosduinen sanatorium came to an end.

chapter 4

Sophia Children's Hospital and Infant Clinic: continuity and change 1937-1966

A distinct turning point in the history of intramural care for sick children in Rotterdam can be noted shortly after the middle of the 1930s, resulting from the merger between the Sophia Children's Hospital and the Infant Clinic, the opening of a shared new hospital building, and the changes in board and directors. Three decades later, the arrival of a new medical director and his appointment to professor of pediatrics, the affiliation with a higher educational institute, and a radical reorganization of the medical departments, marked the beginning of a new era, in which the Sophia Children's Hospital – in symbiosis with a university and a teaching hospital – would develop into a supra-regional academic center for the sick child.

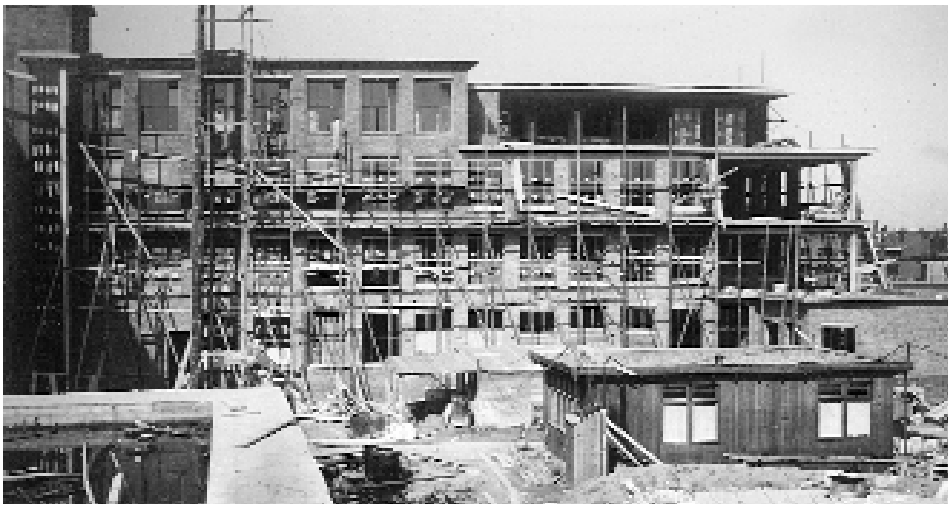
Looking back to the developments in the time span between both caesuras, the question arises whether a subdivision into shorter periods would perhaps be more in keeping with historical reality. This especially applies to the years of German occupation (1940-1945), but also to the periods between 1948, 1958 and 1963, each of which formed a stepping stone to a new situation in the history of the Sophia Children's Hospital. The author's indecisiveness in choosing the time frame that is to structure the historical account of the period 1937-1966, is expressed in the key words continuity and change. While continuity is mainly provided by the hospital's functioning as a specialist hospital within the context of the Rotterdam hospital services, the key word 'change' underscores the vitality that over the years gave form and content to this functioning.

The new hospital on Gordelweg

The first activity of the new board consisted of appointing a building committee on 20 November 1934. Following on the building plans developed by the Infant Clinic, the committee first of all went in search of a location large enough for a partnered hospital, as the allocated parcel in Blijdorp was far too small. Early 1935, in cooperation with the municipal council, which was only too willing to do something in return for the concessions made in relation to the merger, a suitable site was found on Gordelweg, at the time the northern border of Rotterdam in the Bergpolder district. In close consultation with architect Mr. Van der Linden, the professional partner of Mr. Posthumus Meyes who had made the first design for the new Infant Clinic, the board, directors, and the medical officers involved had narrowed down the details for the new accommodation. The selection of an Amsterdam-based architect in times of economic depression, seen against the background of the newly built Havenziekenhuis (Harbour Hospital) designed by the Rotterdam-based architect Mr. B.J. Kramer, B.Sc., stirred up some bad feelings in Rotterdam. However, the discussions again convincingly demonstrated Mr. Van der Linden's expertise 'in the field of modern children's hospital building'. Under his direction Rotterdam was to obtain a complex that not only complied with current standards of architecture and building technique, but as center for pediatric care could also enter the front rank of intramural care.

The building plan was put out to tender on 15 April 1935; three weeks later the contract was awarded to the building firm of A. Buur from the town of Alkmaar for the price of Dlf. 342,334. The first pile was driven on 20 May 1935, or rather it was poured, as a new foundation technique (Franki piling-system) was applied, in which concrete is poured into drilled tubular shafts provided with reinforcing steel bars. Criticasters maligning this system seemed to be put in the right when suddenly, after the high corner section had taken shape, the foundation began to show cracks. Although the main cause of the defect appeared to be the unpredictable settling pattern of the soft polder soil, the building's foundation was reputed to be of bad quality ever since. New problems only confirmed this belief.

The building that was slowly arising during 1936 meanwhile elicited diverse reactions. Public opinion agreed on one issue, namely the fact that its design was functional and plain. This, however, had rather been prompted by the limited funds available. Some details made an impression, such as the application of 'steel frames'. The great stretch of the front (a hundred meters) was considered overawing. Some people wondered whether, in view of the long distances the nurses would have to walk, it would not have been preferable 'to build a 10 to 12 storied hospital after American fashion'. Remarkably, a journalist commented that, had a high-rise building been opted for, 'the Dijkzigt plan' would have provided a better location. For it was on the Dijkzigt location that the next new Sophia Children's Hospital would be erected sixty years later!



The new Sophia Children's Hospital and Infant Clinic under construction, mid 1935. The wing intended for the Infant Clinic left is largely finished; the Children's Hospital block is still in scaffolding.

With its clear and easily recognizable lay-out the building was described as a letter P, its tail intended infants, its body for older children. With kitchen, linen-room, disinfection unit, laundry, and workshop centered on the ground floor around the inner court of the P-body, none of the ancillary activities was encroaching on clinical spheres. The service rooms were ideally situated behind the long front facing the Gordelweg; the patient wards were situated at the rear side, facing south with a view of the garden. Apart from the service rooms, the ground floor was reserved for an isolation ward, outpatient departments, X-ray room, laboratory, and medical staff rooms. The first floor held the neonatal wards and incubator rooms in the P-tail, and the wards for internal patients in the P-body. On the second floor the P-tail contained the quarantine rooms for neonates, and the P-body the nursing and treatment rooms for the surgical patients. While he third floor in the P-tail was reserved for surgical tuberculosis patients, the third floor in the P-body and in addition the fourth floor offered bedrooms for the circa 125 living-in staff, with additional living quarters for top drawer staff. Furnishing had been guided by the principle of 'rigorous plainness', as luxury was something the Board would not indulge in. A novelty, however, was the 'unit system', in which each ward had its own kitchen, bathroom, and examination room. In 1937, the new building offered room for a total of 146 patients, viz. fifty in the neonatal unit, fifty in the pediatrics department, and 46 in the pediatric surgical department.

Westerlaan temporary hospital

In its first years the board of the new merger-hospital was almost fully occupied with the realization of the Gordelweg-complex. Springtime 1936, however, this situation changed owing to a request from the municipality relating to the closure of the municipal auxiliary hospital on Raamstraat. This institution, originally built as National Midwives Training College cum Maternity Clinic, and under supervision and management of the Coolsingel Hospital since 1915, included a department for female patients and children. The municipality requested the Sophia Children's Hospital to accommodate 38 of the 76 children admitted there. As the authorities were well aware that the situation in the Westersingel establishment and the state of affairs concerning the new building on Gordelweg made it impossible to admit these children, they simultaneously proposed to fit out a temporary auxiliary children's hospital in one of the premises of the Unilever concern on Westerlaan. This building, as well as the ground floor of the adjacent one, also temporarily housed the Havenziekenhuis, which awaited completion of a new accommodation on Oosterkade.

In August 1936, the first patients were admitted to the otherwise provisionally equipped building, in which forty beds had been distributed over eight rooms and an isolation ward. Management was assigned to the Association Sophia Children's Hospital and Infant Clinic; medical care was placed in the hands of the Infant Clinic pediatrician Hengeveld, and five persons were employed for nursing care and domestic work. Major disadvantages of the new accommodation were lack of a quarantine facility and the impossibility of placing patients with specific diseases in separate cubicles. An infectious disease broke out just when the patients were about to be transferred to the new building on Gordelweg, 15 April 1937, and hence the removal had to be postponed for several weeks. In May 1937 the Westerlaan temporary hospital could be closed.

Stepping stone to a new beginning

Meanwhile the construction of the children's hospital on Gordelweg had reached its concluding stage. It was completed on 7 April 1937, ready for furnishing. Within a week, on 12 April 1937, the patients from the Infant Clinic on Goudsesingel arrived. Two days later, private automobiles made available by unremitting Rotterdam charity delivered the neonates from the children's hospital on Westersingel, and on 15 April the remaining children from this once so illustrious building were transferred. Finally, patients and furniture from the Westerlaan branch followed at the end of April.

Great enthusiasm and dedication characterized the new beginning. From the extensive local press coverage it appears that the hospital's staff did not observe 'starting or ending hours' but decided 'to work on until a halt was called for'. In this

Temporary children's hospital at Westerlaan, 1956-1937.

situation several ladies' committees, busily assisting in furnishing the building and embellishing its interior, showed themselves the representatives of ever ready charity.

The removal operations were led by the new director Mr. H. van Ree, a former colonel in the Royal Dutch East-Indian Army, appointed in December 1936 to take over the managerial duties of the two medical directors of the merged institutions. Nursing management was entrusted to the assistant-director of the Westersingel children's hospital, Sister E.C. Schmidt, but within one year later she was replaced by Sister L.C. van der Sleen, which completed the break with the past at the directors' level. A link with the past was preserved, however, in that an equal number of members from the boards of both parent associations stayed on, and that dr. Moll van Charante was appointed chairman. Changes in the medical staff were few: dr. Siegenbeek van Heukelom left, and was succeeded by Mrs. Van Westrienen as head of the department of pediatrics. Dr. Hengeveld continued to supervise medical care in the neonatal unit and dr. Boevé that in the pediatric surgical department. The new opportunities presenting for the various specialists, either active in the outpatient department or as consultant, are further outlined in the next chapter.

On 22 September 1937, the new hospital complex at the Gordelweg was formally opened by the Mayor of Rotterdam, Mr. P. Drooglever Fortuyn (1868-1938). The gathering, which was registered on film, was solemn rather than festive, and largely consisted of the customary speeches and a tour of the building. This opening cere-

Removal from Goudschesingel to Gordelweg, 14 April 1937.

Removal from Westersingel to Gordelweg, 16 April 1937.

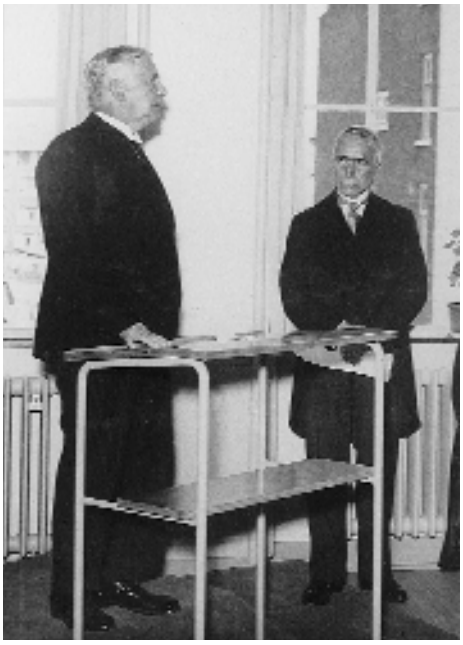
Removal from the Westerlaan temporary children's hospital to Gordelweg, 26 April 1937.

mony formally terminated the obligations of both parent associations with regard to the Children's Hospital and the Infant Clinic, respectively. From now on their activities would be confined to the remaining duties: The Society for the Protection of Infants was to fully concentrate on organizing the child health centers, the Association Sophia Children's Hospital and Nurses' Association on running the Sea Hospitium at Loosduinen and promoting the nurses' interests. In 1937, with the sale of the Westersingel premises to the Ministry of Defense, which eventually used the block as barracks for the Marine Corps, the curtain came down on the stage on which for more than sixty years (1876-1937) child medicine in Rotterdam had been playing its leading part. Six years later the Loosduinen branch was shut down as well. The Infant Clinic's building on Goudsesingel was bombed in May 1940.

Meanwhile, the newly appointed director Van Ree expressed annoyance at the still noticeable 'rather less desired presence' of all kinds of craftsmen after the chaos of the removal. Although 'a model institution in the field of sick children's nursing' had been aimed at, this ideal appeared to be an elusive prospect, and architectural adaptations remained indispensable. Soon after the opening the physicians reported a shortage of isolation cubicles, and living-in personnel requested more living space, whilst the board pointed out that the medical specialties required room, and that in particular a dentistry outpatient was needed.

On top of that, the building itself exhibited all sorts of defects, mainly resulting from the foundation problems mentioned above. Water pipes and sewers began to show bursts and resident staff on the fourth and fifth floors were repeatedly confronted with failures of the water pumping system. For quite a while the hospital's immediate surroundings, and the garden in particular, made a sorry sight, as paving and planting activities were seriously hampered owing to the soft soil.

Apart from these architectural problems the board was faced with miscellaneous setbacks in the upkeep of the new children's hospital. As from the year in which the new building was taken into use, the annual accounts showed increasing deficits. The first sign was a completely empty purse at the time the first patient arrived, 12 April 1937. However, expectations were still high, the more so because the financially balanced agreement with the local council was considered to guarantee a sound exploitation. An agreed 120 beds would be reserved for council patients, and the nursing fee for these beds would definitely not come down to less than four guilders. From the very start it was evident that the board had miscalculated. In 1937, the deficit could still be excused with the remark that it had been 'quite a special year'. One year later the truth came already nearer to coming out, when it became clear that the hospital had been able to manage only thanks to the contributions of subscribing members and patrons. In these and the following years the numbers of council patients never met expectations. In an attempt to turn the tide, the municipality in 1938 requested the board of the hospital to take in a representative of the municipal council, 'in order to facilitate mutual contacts'. The request was complied with by appointing alderman R.J. Dijk, who was to be succeeded by alderman Nivard; the improvements aimed at, however, were not forthcoming.



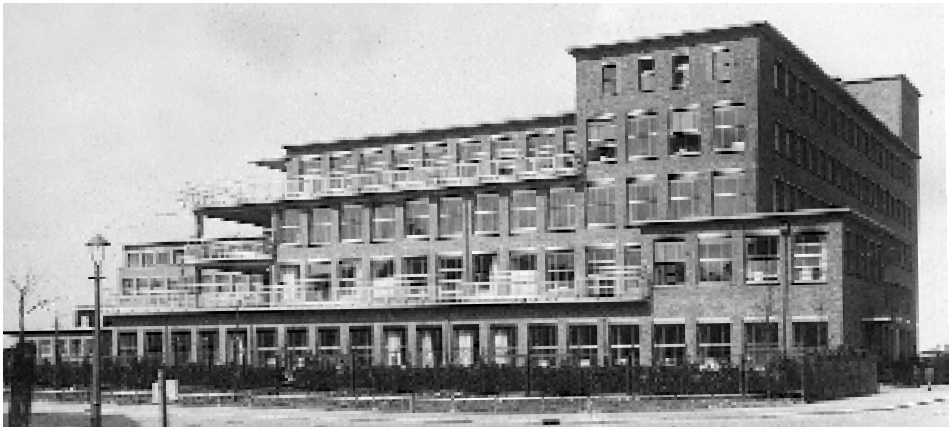
Opening of the new Sophia Children's Hospital and Infant Clinic on 22 September 1937 by Mayor P. Drooglever Fortuyn. Behind the lectern the mayor, to his right the chairman of the Board, dr. G.H. Moll van Charante.

Time of war and occupation

All these problems began to be overshadowed by the emerging threat of war. Blackout drills started in 1939, sandbags and shovels were stored on the flat roof to combat fires, and street and roof guards were standing by in the unlikely event of the building being hit by a bomb. In special sessions, technicians and physicians instructed personnel on the measures to be taken in case of air-raid warnings and bomb explosions.

That which had been dreaded so long happened in May 1940. The shocking events that took place in Rotterdam during the first days need not be recounted here. While the old city center turned into a sea of flames after the bombardment on 14 May 1940 and the population was fleeing for safety, all that was left to do in the children's hospital was to put the patients at ease as best as one could. Five years of horrors and hardships followed. Fortunately the buildings on Gordelweg were spared from destruction, but the technical and sanitary facilities broke down repeatedly during the years of occupation. Elevators and incubators were out of order on account of stagnating electricity supply, and for lack of lighting the operating theater could only be used sparingly. The board regretfully recalled how in 1939 they

The new hospital complex shortly after completion. Top: Gordelweg façade with main entrance; bottom: back-front of the Children's Hospital, with left the neonatal unit and right the department of pediatrics, surgical department and service rooms.



The children's hospital; on the ground floor the cubicles for the children in quarantine, on the first floor the department of pediatrics with a large terrace for open air treatment, and on the second and third floors the surgical department with several orthopedic wards.

had negotiated the installation of an 'individual diesel power unit' with the Municipal Electricity Company, which investment the local council had refused for various reasons. When the situation became intolerable in 1944, the council considered the installation of a 'wood-gas generator', but this involved so much bureaucracy that the machine had even not yet arrived on Liberation Day.

No less problematic was the supply of water and gas. Sometimes water could only be supplied thanks to the spontaneous help of local residents who formed a chain of buckets in order to draw water from the lock-chamber in the canal across the road. As the plans for an individual drinking water system (spring water) had been blocked by the council in 1939, one had to make do with a poor distilling apparatus for purifying the canal water. Fresh supplies of water were occasionally sent by the Heineken Beer Brewery, a director of which happened to be on the board. As to heating, the hospital not only had to cope with fuel shortage, but also with faulty boilers. It had soon transpired that the new location, on 'a large, open plain', required much more heating capacity than that which the available central heating boilers could provide. Before long the overworked boilers caused the heating system to break down. Throughout the years of occupation the attempted repairs were hampered by the lack of all kinds of spare parts and, since around 1943, by the necessity to convert to the burning of coke, and later to what the Germans qualified as coal, but actually appeared to be slack. Meanwhile the hospital managed to make do with some improvised stoves and a borrowed hotel kitchen-range stoked with wood that Mr. L. van Stolk, wood trader and member of the board, was able to supply.

The shortage of food and utilities became increasingly acute, especially when rationing was introduced. Food, medicines, and nursing aids were sold on the ration and could only be secured through a great deal of administrative bother.

Gradually the allocated rations decreased to minimum amounts. Yet those within the hospital walls were never really famished during the occupation. Of great help in the first years was the enormous stock of vegetable preserves that had been laid up before the outbreak of the War. Also, 'an important bread credit' that had been built up thanks to the ample allocation of bread rations in the first war years proved extremely useful in later years. Even during the winter of starvation (1944/45) nine slices of bread a day were available for each employee: an unprecedented luxury considering the general food shortage in Rotterdam. In spite of the perilous transports the firm of Nutricia continued to supply protein milk; a consignment of wheat, rye and pea flour was delivered from Groningen; an unknown philanthropist from Bussum sent 'a carload of model milk', and one of the residents, Miss M.I. Korthals Altes, ventured out to Friesland on her own and returned with 'cheese, butter, pulse, and dairy products'! At the close of the war all kinds of relief organizations, such as the Red Cross, the Netherlands Aid Society and in particular the Help Holland Council, sent goods.

Already on the day preceding the official Liberation Day, 5 May 1945, there was a great deal of excitement in the hospital. Behind the walls people had secretly started dancing and singing, and the male staff were exhausting themselves for hours to place the tall and heavy flag pole on the roof. It was a big letdown when on the following day, with the tricolor already flying at the pole, flags had to be taken inside again. It was not until 6 May that the long awaited festive joy was given room to explode.

Caught in the force field of post-war health care

After Liberation Day the municipal council was facing the immense task of rebuilding Rotterdam's immensely disturbed urban infrastructure. As to the hospital facilities, most attention went out to the complete or partial rebuilding of the Coolsingel Hospital, which had been largely destroyed in the May 1940 bombing. In a wider context this involved the question how the council beds were to be divided among the three municipal hospitals (on Coolsingel, on Bergweg, and in south Rotterdam) and the various privately run specialist and denominational hospitals in which beds had been reserved for council patients. In 1946 this concerned 2198 (68%) council beds out of a total of 3220. As the population had meanwhile grown to 626,549, partly through annexation of several neighboring villages, the number of beds per one thousand inhabitants now amounted to 5.14.

Of all hospital beds, 616 were intended for children. Apart from the 192-bed capacity of the Sophia Children's Hospital, the Zuiderziekenhuis offered room for 116 children. Large children's departments were found in the Bergweg Municipal Hospital (79 beds) and the St. Franciscus Hospital (62 beds); smaller departments in the Eudokia Hospital (12 beds), the Deaconesses' Institution (16 beds), and the State Maternity Ward (24 cribs). The statistics also included the 52 beds in the Adriaan

The ward for surgical patients (top), the cubicles in the internal department (center), and the neonatal unit (bottom) in the new Children's Hospital.

Foundation (the orthopedic clinic in Rotterdam), as well as the 63 beds in the Children's Clinic Margriet, which were largely occupied by convalescent children from the Zuiderziekenhuis. The differences with the previously mentioned figures for 1930 are remarkable, notably the shifts within the municipal hospitals, i.e. the canceling of the pediatric beds in the Coolsingel Hospital, the expansion of the children's department in the Bergweg Hospital, and the institution of a large department of pediatrics in the Zuiderziekenhuis in 1939. In the near surroundings of the Sophia Children's Hospital the children's department in the St. Franciscus Hospital had become an important 'competitor'. In this force field that manifested itself in the period under discussion, the Sophia Children's Hospital had to stand out as a specialist hospital for the sick child, which next to the children's departments in the general hospitals had a right to exist and might even have added value.

These altered relations within the intramural care system in Rotterdam added to the continuing problems the Sophia Children's Hospital encountered. Low occupancy, in part resulting from the acute shortage of staff, and the discrepancy between the actual nursing costs and the standard compensation for the council beds were the main causes for the malaise. Set at Dfl. 4.18 in 1937, the third class nursing fee was Dfl. 4.68 in 1940; after the war the hospital charged a nursing fee of Dfl. 6.50. Lagging far behind this development, the municipality, after months of discussion in the 'Contact Committee Rotterdam Private Hospitals' in 1942, attempted to make up for the difference with a quarter quilder, which was absolutely insuffient. The Dfl. 48,000 deficit in 1943 had increased to Dfl. 84,000 in 1944. The 1946 balance-sheet referring to the period of war showed a deficit amounting to almost Dfl. 117,000!

This malaise, which for that matter also affected the other privately run hospitals, could only be overcome with the aid of the authorities. If the municipality should not be willing to extend a helping hand, the Sophia Children's Hospital was really threatened with closure. In October 1946, the council decided to turn the aforementioned 'Contact Committee' into a 'Committee of Cooperation between the Municipality and the Rotterdam Private Hospitals'. The new Committee was to make a recommendation bearing on the future of private hospitals in Rotterdam. A few months later the Committee came with the advice to subsidize the needy institutions, provided that the municipality would be represented in the governing bodies concerned. On 5 June 1947 the council decided to grant the Sophia Children's Hospital a Dfl. 200,000 loan to make up for the current deficit, as well as a yearly subsidy, the amount of which would be based on the annual statistics. In accordance with the advice of the 'Committee of Cooperation' it was stipulated that two council representatives should get a place on the board. The Sophia Children's Hospital had no reason to object to the latter demand, as the board had included an alderman since 1930 (Mr. R.J. Dijk and Mr. F.L.D. Nivard, respectively). In 1947, the Director of the Municipal Department of Finance and Industry (Mr. J. Hasper) and the Economic Director of the Rotterdam Municipal Hospitals (Mr. H.J. Valk) were appointed as such.

Philanthropy meanwhile had clearly changed in nature, and now played quite a different role in the existence of the Sophia Children's Hospital. The organization's increase in scale barely allowed for a further structural charitable contribution to the running cost. The 1946 running account enters the more than four hundred contribuants to the 'Vereeniging…' for just a little over three thousands guilders contribution, which accounted for some 1% of the aggregate income. Municipal and church charities had been replaced by statutory regulations aiming at a strengthening of social security, such as compulsory medical insurance, introduced in 1941. The charitable activities mentioned in the annual reports of the Sophia Children's Hospital mainly refer to benefit performances and bazaars intended to raise funds for particular acquisitions, to musical evenings organized for hospital staff, and to the handing out of tidbits at festive occasions, such as Saint Nicholas Day and Christmas.

Here too, the exception proves the rule. In the years just after the war, gifts in kind supplemented those goods that owing to the shortage of raw materials were not or hardly available. In the 1946 annual report, for instance, special mention is made of one Mrs. Gips from New York 'who by sending towels, diaper cloth, needles, thread, washing-gloves, bibs, underpants, safety-pins, rice pudding, peanut butter, biscuits, and egg powder provided for welcome replenishments and as many surprises'. In the very year when the treasurer entered in his cashbook the above-mentioned municipal credit, the Sophia Children's Hospital was left a considerable legacy from Mrs. Grinwis-Kalkman, which was substantial enough to immediately pay off the loan and to build and furnish a playroom as well (opened on 9 November 1954 by the Mayor's wife Mrs. J.M. van Walsum-Quispel). The local campaign held in the years 1956-1958 to raise money for a staff pavilion is mentioned here in advance within the same framework of incidental charity.

Although the shift in the financial position of the Sophia Children's Hospital provides sufficient reason to have a new period begin in 1948, it is mainly the mutations within the board, directorate and medical staff that occasioned a radical reorientation in these years. In 1948 the board saw the departure of its chairman, Mr. J.A. Stenfert Kroese, who was appointed honorary member of the Association on that occasion, in view of his special merits as chairman during the hard years of occupation. Mr. Kroese was succeeded by Mr. Louis van Stolk (1903-1986), a partner in the timber trading firm of the same name, who had joined the board in 1941 and held the position of secretary since 1942. More than once he succeeded in letting the hospital profit from his many connections in health care organizations and in governmental bodies. The gifts from the Help Holland Council as well as the hospital's participation in the national fight-against-tuberculosis scheme resulted from Mr. Van Stolk's central position in both organizations.

At a director's level, dr. Van Ree announced his intention to leave in 1946. Shortly afterwards the board decided to attach pediatrician Hans Reerink to the Sophia Children's Hospital, promising to confer the directorate upon him as soon as this post

The new play-room which was formally opened on 19 November 1953 by the Mayor's wife Mrs. J.M. van Walsum-Quispel. Top (center) the memorial window mentioning Mrs. T. Grinwis-Kalkman's bequest, which among other things served to fit out the play-room (bottom).

became vacant. Dr. Van Ree left in 1947, whereupon dr. Reerink indeed became the new medical director, fully taking over the director's tasks early 1948. At a nursing staff top level a similar mutation took place two years later, with the retirement of Sister Van der Sleen. Thereupon in 1950 Sister A. Binnendijk was appointed deputy-director.

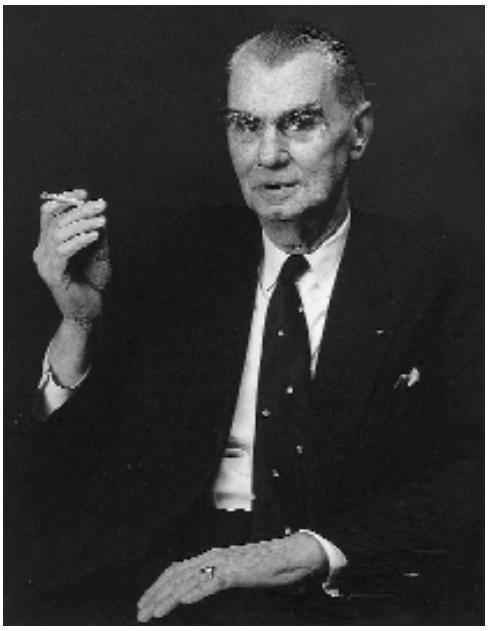
Noteworthy, too, are several mutations in the medical staff, with two veterans of the Sophia Children's Hospital taking their leave officially in 1948, viz. dr. van Westrienen and dr. Hengeveld. The former's position was taken by the medical director Reerink, and the Amsterdam pediatrician Tieline A.E. Janssen was appointed in the vacancy Hengeveld. The metamorphosis of the medical staff was rounded

off in 1949 with the departure of surgeon Boevé, in whose place pediatric surgeon David Vervat was appointed. New flair had thus been introduced on all fronts within the Sophia Children's Hospital, aiming at mapping out a new course in the midst of the great changes taking place within the world of health care in general and within the pediatric world in particular. This process of reorientation was not founded on a strategic plan and was also lacking a steering objective, although the latter might have been found in the width of the emerging pediatric subspecialties and in the depth of high-quality care and sophisticated treatment. In the 1950s the Sophia Children's Hospital, focusing on the internal problems around personnel facilities and architectural adaptations, and missing a broader view on its medical course, gradually landed in a state of general disorientation, from which it was not to be freed until the middle of the sixties, under new management and in symbiosis with a university teaching institute.

From reorientation to disorientation

The shortage of personnel, certified nurses in particular, remained a predominant theme in the administrative documents of the Sophia Children's Hospital in the 1950s. This problem, which at first was considered to result from the bad situation in the years of foreign occupation, appeared to be more deeply rooted and was to exert its influence longer than expected. A 'turbulent desire of change' seemed to have seized the nursing staff after Liberation Day. In the postwar reconstruction years all sectors of Dutch society offered plenty of jobs in state, army or East-Indian employment, with much higher salaries than those which the Sophia Children's Hospital could afford, and far better working conditions, such as 'flattering uniforms, promotion in rank, large cigarette rations etc.'. A range of measures, such as a resignation ban, extension of the nurses' training course, calling in a team of 'female volunteers', a 15% pay rise, and intensified recruitment by means of an advertising campaign, appeared not effective enough. Some relief could only be obtained by drastic limitation of the number of admissions (implying the previously mentioned fatal consequences for the hospital's financial state) and even closure of wards or entire departments. In 1945 already more than thirty beds had to remain unoccupied for want of personnel; a few months later the incubator room, the orthopedic clinic, and units of the internal medicine department were closed. In 1954 and 1956 it was necessary again to temporarily shut down several wards.

Recommendations from the 'Dutch Institute for Staff Management' in 1949 did not lead to improvements. Neither did a gradual pay rise bring about the intended effect, though, incidentally, it resulted in the historical leveling of labor recompense in public and private hospitals. Higher holiday allowances and free supply of uniforms also proved to be of no avail. Although the reduction of working hours, crowned by the introduction of the five-day working week in 1960, was to the advantage of the employees, it also had a contrary effect on the scarcity problem. A



Member of the Board, later on Honorary Chairman, Mr. Louis van Stolk (1903-1986), who promoted the interests of the Sophia Children's Hospital in an exceptional way for almost forty years. In 1959 the new nurses' home was named after him: L. van Stolk pavilion.

similar trend resulted from an intensification of the nursing procedures, which meant that more nurses were needed for the care of the same number of patients.

Bringing in students from the nurses' training course could partly compensate for the shortage of qualified nurses. In the 1950s, more than half of the circa one hundred nurses were still in training. In the early 1960s, the proportion of student nurses increased to some 60%, i.e. 72 students of a total of 118 nurses. The statistics distinguish between nurses as such and managerial nursing staff. The latter category included the deputy director, head nurses, senior nurses, the instrumentation nurse and, as from 1959, the outside service nurse. In 1952 the Sophia Children's Hospital, on the ground of the great importance of the nurses' training course, fiercely opposed the governmental plans for reorganizing the nurses' training course to the effect that training nurses would spend only two years instead of three years in the children's hospital. This issue remained the talking point for almost ten years, until eventually, in 1964, the Minister decided to abandon it. Meanwhile nursing care for children was undergoing a change in character as well. The developments in pediatrics and pediatric surgery demanded ever more specialized skills in addition to the general qualifications for child nursing. In the 1960s, the topic of child nursing specialization, for which nurses were to qualify by means of continuing education, would further complicate organizational matters.

The medical staff doubled from 11 to 22 persons in the years 1937-1964, an increase occasioned in the early 1950s when residents were taken on and several specialists joined the medical staff. At the end of 1964, four pediatricians (H. Reerink, Mrs. E.E.

The class-room in the wooden shed in which theoretical nursing instruction was given until 1959. The teacher in the picture is the medical director dr. H. Reerink.

Reerink-Brongers, T.A.E. Janssen, and J.J. Pieterse), and two surgeons (D. Vervat and dr. J.A. Noordijk) were fully active in the Sophia Children's Hospital; part-time specialist positions were held by a pediatric cardiologist (Mrs. J.H. Kleyn-van Walbeek), an ear, nose and throat (ENT) specialist (C.E. Bos), a neurologist (prof.dr. J.W.G. ter Braak), an orthopedic surgeon (J.H. ten Kate), an eye doctor (dr. M. Pannevis), two plastic surgeons (J.C. Raadsveld and dr. J.C. van der Meulen), an anesthesist (J. van 't Oever), a radiologist (J.H. Nauta), an anatomist (C.B.F. Daamen) and a pharmacist

Left: the medical staff of the Sophia Children's Hospital in the mid-1950s. Seated from left to right the medical director dr. H. Reerink and Mrs. Anna van Westrienen; standing between these two the pediatrician Mrs. T.A.E. Janssen. The other persons are registrars training in the hospital. Right: a group of interns placed in the Sophia Children's Hospital within the framework of its affiliation with the Foundation Clinical Higher Education.

(J.I. Cohen). Five residents completed the medical staff. The clinical chemist (dr. E. Ben Gershôm) still ranked among the ancillary staff.

The number of domestic and technical staff was evidently an easy target in hard times. Ranging from 43 to 75 persons in the period until the 1950s, it afterwards gradually stabilized around 80 persons. A substantial inflow of maid-servants at the end of 1964 raised the number of domestic and technical staff to one hundred employees. The item 'personnel expenses' remained the highest in the annual accounts (36.3% in 1937 and 45.1% in 1964). Calculated per nursing day, they show a considerable increase, from Dfl. 1.49 (35.6%) at a nursing fee of Dfl. 4.18 in 1937 to Dfl. 25.09 (73.1%) at a nursing fee of Dfl. 34.31 in 1964.

The aggregate running costs in the period 1937-1964 increased from Dfl. 129,140 to Dfl. 2,145,151. The figures for the various items were accurately specified in the annual accounts. The accounts department in this period was headed by Mrs. Van Bommel, appointed acting head after administrator Mr. Ph. van de Nieuwenhuizen left in 1941; she formally became administrator in 1948. One year later, the purchase of the first adding machine signified the start of the automation process using mechanical systems. Actual modernization, including digital automation and the introduction of working methods based on business economics, did not follow until in the second half of the 1960s under the supervision of Mr. C. de Jong, who had been appointed administrator in 1964.

The graphical representation of the patient statistics (Fig. 3) shows that the rise of admissions in the period 1937-1966 is mainly due to the enormous intensification of the workload in the surgical department. Leaving out the difficult initial phase and the chaotic years around 1965, the number of surgical patients trebled within a quarter of a century (1946-1961). The growth in the internal and pediatric departments in this period was much less (nearly 60%), whereas the number of admitted infants shows a distinct decrease (more than 40%). Of old, the proportion of boys was higher than that of girls; after the Second World War the numbers of admissions for both groups diverged even more, until eventually the difference became more than 50%. In the graph showing the numbers of outpatients (Fig. 4), surgery as well accounts for the largest growth. The development of the four outpatient departments (pediatrics, pediatric surgery, orthopedics, and ENT) clearly illustrates the expansion of ambulatory treatment after the Second World War. Striking is the abrupt decrease of the number of ENT outpatients in the early 1950s, for which the records themselves do not provide an explanation or clues.

In the postwar period various measures were taken to make the patients' everyday life in the hospital more agreeable. In September 1948, the Board decided 'to attend to the patients' spiritual guidance by appointing a special officer … whose task will be to cater to this need and to perform some other duties in addition, such as taking intelligence tests, operating the electro-cardiograph, etcetera'. As mentioned earlier, a playroom was fitted out in 1953. Three years later the remarkable plan 'to have all eligible children taken care of by their mothers in a separate department' was con-

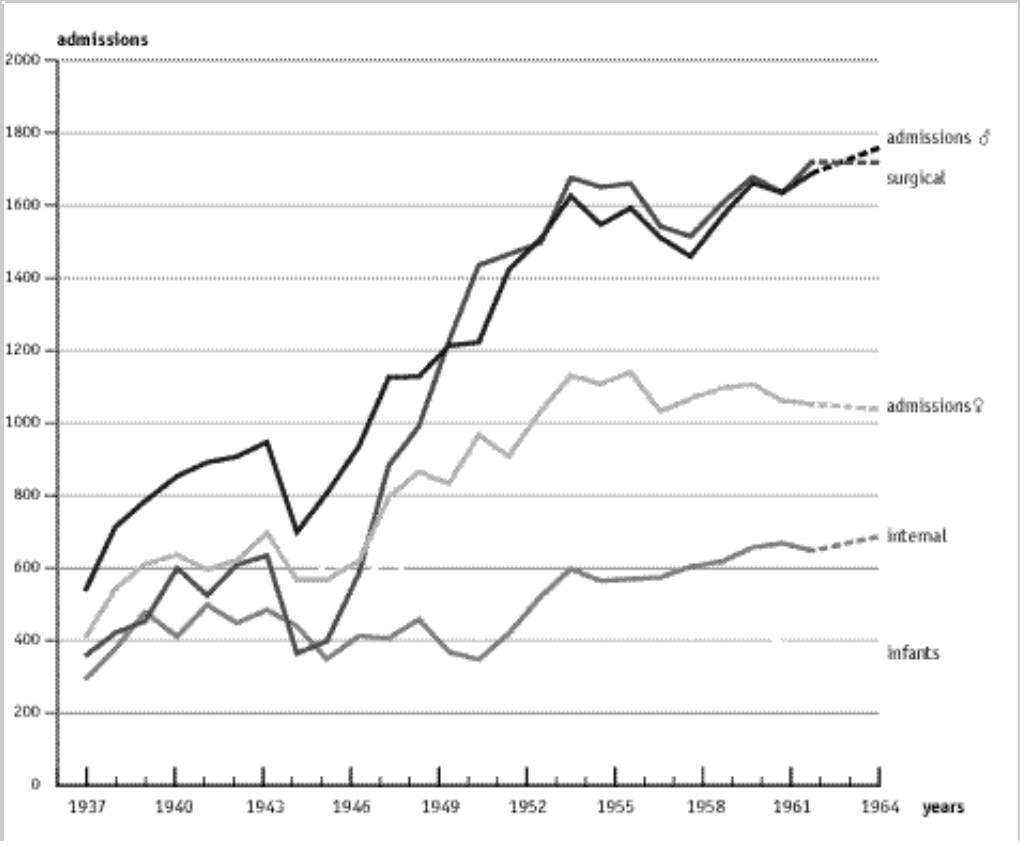


Figure 3. Numbers of admissions in the period 1936-1966, arranged by sex and hospital department.

ceived, but for obscure reasons this intention was not realized. The 'Foundation Children's Broadcast Service Sophia Children's Hospital', brought into existence on 18 February 1961, achieved more success, and became thereafter inextricably bound up with daily life in the wards. A new visiting scheme introduced in the very same year enabled parents and relatives to see their little ones more frequently.

All these developments necessitated continuous architectural adaptations and expansions. On the arrival of the new medical director, dr. Reerink, attention focused on the medical facilities in particular. In his first contacts with the board, dr. Reerink already declared that the laboratory facilities needed to be expanded. This having been effected in 1948, a small-scale reconstruction for the furnishing of a doctors' room on the first floor followed in 1954. Extension of the outpatient department was begun in the same year, including a small operating room and more

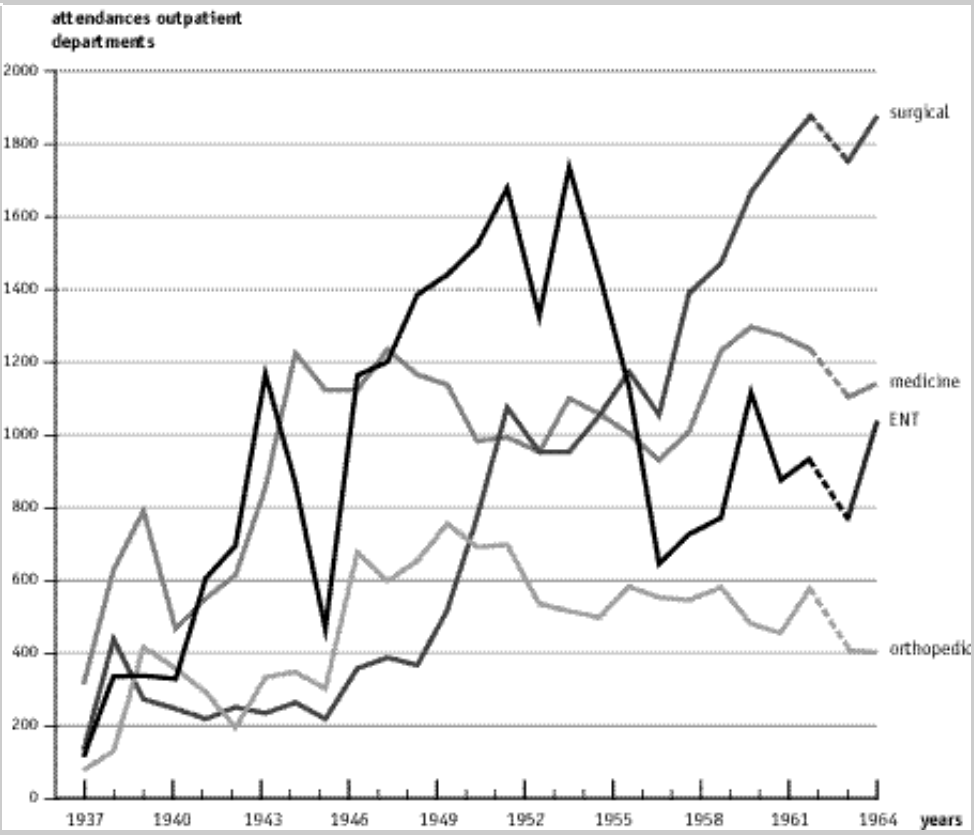


Figure 4. Numbers of patients in the pediatric, surgical, orthopedic and ENT outpatient departments during the years 1937-1964.

spacious accommodation for the X-ray room. This extension was formally opened by the Director General for Public Health, prof. dr. P. Muntendam, on 14 May 1956.

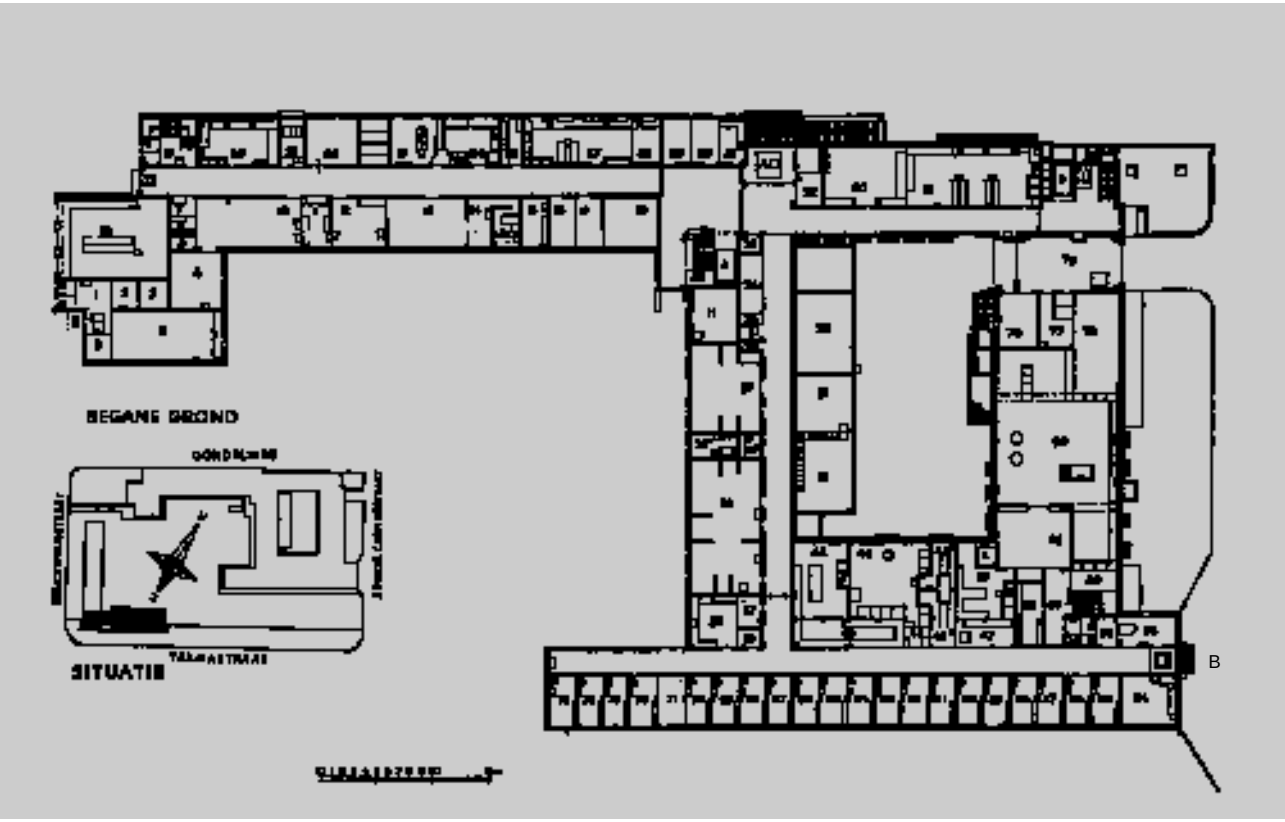
At this time the board already cherished far advanced plans to build a nurses' home, which at last would fill the long-standing need for more, and especially more spacious, accommodation for the nursing staff, notably internal housing and in addition 'a cloakroom, changing and washing-room for the non-resident employees, a sitting-room for the living-in maid-servants, a proper canteen for the male employees, and a reception room for living-in personnel'. The ten rooms in the former tuberculosis pavilion which became available in 1947, as well as the five rooms added to the pavilion five years later, offered little relief in this respect. In order to be able to compete successfully on the tight labor market, that of certified nurses in particular, the Sophia Children's Hospital had to offer good housing. The nurses of the 1950s did no longer let themselves be locked up in the cells which had sufficed their predecessors.

Board and medical staff of the Sophia Children's Hospital in 1963. Seated from left to right treasurer R. Duin, secretary H.H. Nauta, board members H.J. Valk and Mrs. J. van Schaardenburg-Diemer Kool, chairman L. van Stolk, pediatric cardiologist Mrs. J.H. Kleyn-van Walbeek, board members Sir P.R. Feith and H.J. van Berkel. Standing from left to right the anesthetist J. van 't Oever, the medical director H. Reerink, Mrs. De Haas, deputy nursing director Mrs. R.M. van den Berg, pediatricians dr. T.A.E. Janssen and dr. E.E. Brongers, pediatric surgeon dr. J.A. Noordijk, pediatrican and staff medical officer J.J. Pieterse, ophthalmologist dr. M. Pannevis, orthopedic surgeon J.H. ten Kate, reconstructive surgeon dr. J.C.H.M. van der Meulen, pediatric surgeon D.Vervat, ENT specialist C.E. Bos, and radiologist J.H. Nauta.

Apart from improved accommodation, other efforts were made to content the nurses. Under the directorate of Sister R.M. van den Berg, appointed nursing director in 1953 after Sister A. Binnendijk's brief interregnum, the many house rules and disciplinary regulations were revised with the obvious intention to improve living and working conditions in the Sophia Children's Hospital. Noteworthy are the activities and initiatives that were developed to fill the leisure time of living-in personnel. The Sophia Children's Hospital Dramatic Society, founded in 1947, regularly gave in-house performances, and lecturers were invited to give talks and 'lectures with transparencies' on popular-medical and general subjects. In 1951 the directors appointed a 'home nurse with direct supervision over staff welfare', who, however, apparently for lack of success, disappeared as promptly as she had come into view. Thanks to a gift from the chairman of the Board, Mr. Van Stolk, the communal sitting-room was provided with a television set in 1954. Still, the hierarchical relationships remained as yet untouched. Democratization did not follow until the 1970s, after the Sophia Children's Hospital had started to sail under academic colors. The initiative of the 'Sophia Children's Hospital Staff Association' to publish a house magazine under the striking title Sophokles in 1964 merely foreshadowed the self-assuredness that would gradually reach towards an employee participation level.

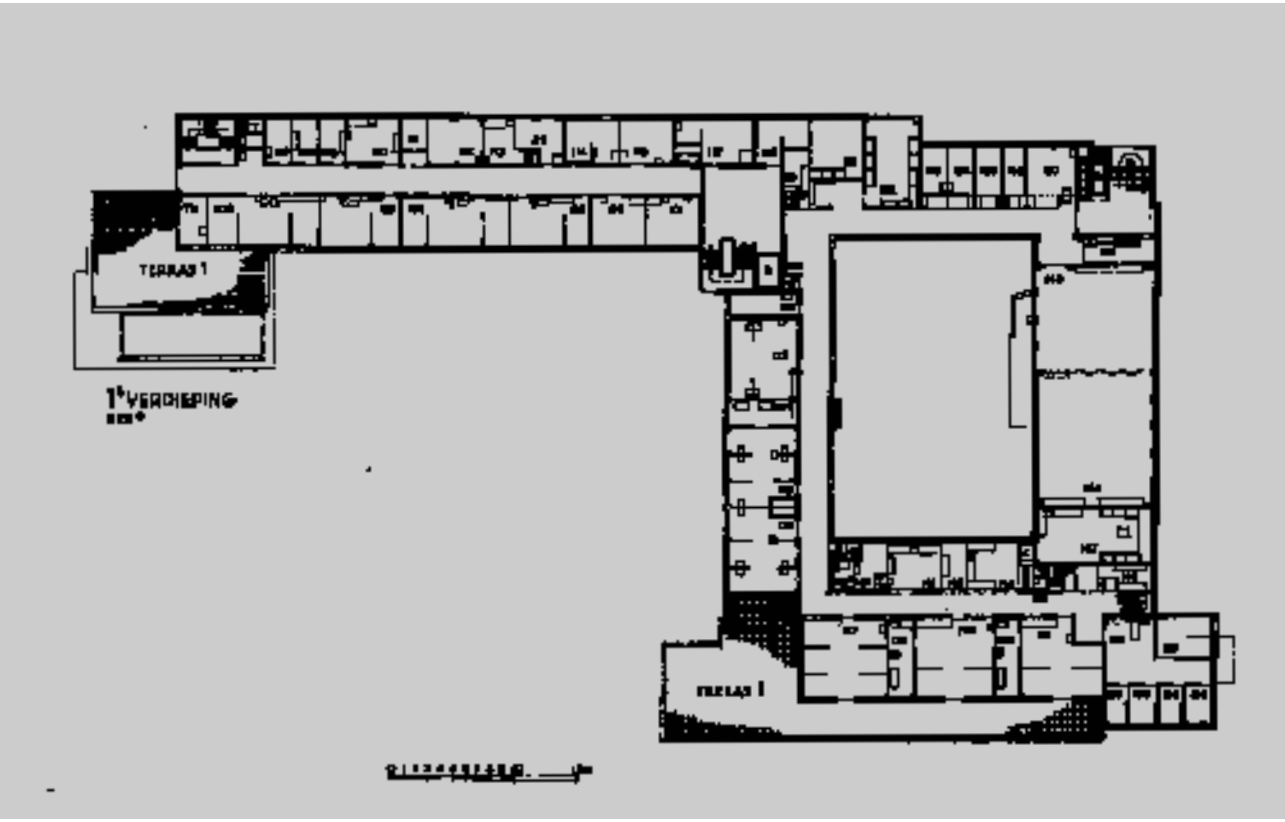
Under Mr. Van Stolk's leadership the building of a new nurses' home in the years 1956-1959 became a preliminary culminating point in the history of the Sophia Children's Hospital, at least with respect to its public manifestations. Mr. Van Stolk and his colleagues unprecedentedly managed to stir charitable circles in Rotterdam for the realization of a building which was to contain, apart from nurses' rooms, an auditorium-cum-lecture-hall, as a token of the aspirations to acquire the status of teaching hospital which one had began to harbor. A perfectly organized lottery, a sensational soccer match between Rotterdam-based Feyenoord and Tottenham Hotspur, a series of newspaper articles and serials on the Sophia Children's Hospital, and many other campaigns 'under the magic control of our Chairman' raised more than Dfl. 800,000! The go-ahead was given in April 1957 and the first pile of the building designed by architect J. de Bert was festively driven on 29 October 1957. One year later it was standing four stories high, the ground floor containing the reception hall and auditorium, the three higher floors the nurses' rooms and communal rooms. Moreover, in the corridor connecting to the hospital five large consulting rooms could be added to the outpatients complex. Formally opened by Mayor G.E. van Walsum (1900-1980) on 2 May 1959, the building was christened 'L. van Stolk Pavilion', to honor the chairman of the Sophia Children's Hospital.

Many visitors paid a call on the Sophia Children's Hospital in these years. Amid remarkably great public interest the Pakistan ambassador, Begum Ra'ana Liaquat Ali Khan, visited the hospital on 25 May 1957. Soon after the opening of the L. van Stolk Pavilion the Sophia Children's Hospital was unexpectedly visited by HM Queen Juliana, on 10 June 1959. Again this was occasion enough for the media to put the Sophia Children's Hospital in the limelight.



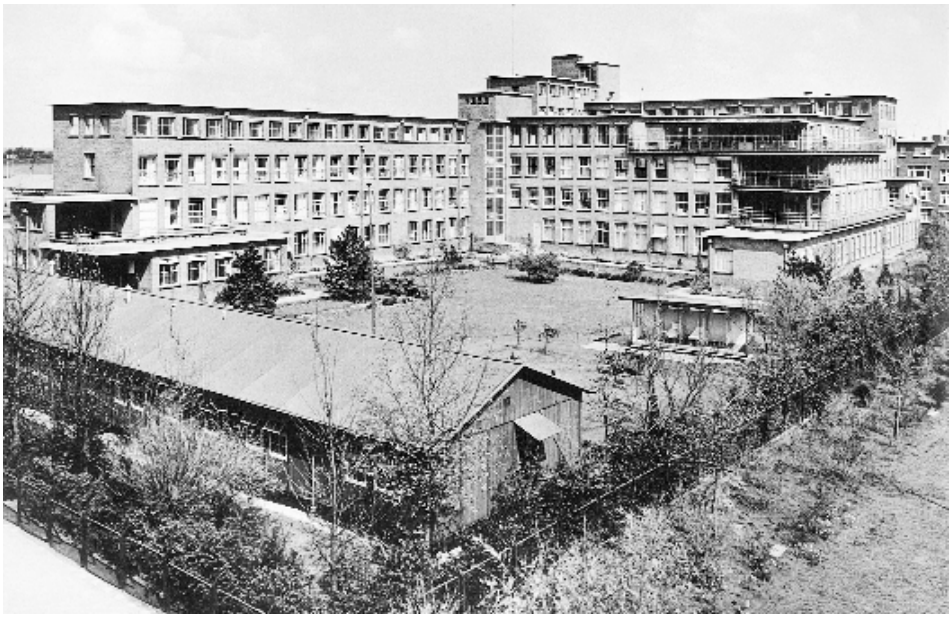
Ground floor plan of the Sophia Children's Hospital and Infant Clinic on Gordelweg in 1937.

(A) Main entrance; (B) Entrance quarantine children; (a) patients' lift/elevator; (b) Nurses' lift/elevator; (c) Food lift/escalator; (f) Chute for dirty laundry; (H) High-tension room; (1) Entrance outpatients department; (1a) Waiting-room; (2-3) Cubicles; (4) Changing-room; (5) Passage; (6-7) Changing-rooms; (8) Consulting room; (9) Dark room; (10) Surgical o.d.; (11) Instrument-room; (12) Plastering room; (13) X-ray room; (14) Cytoscopy-room; (14a) Dark room; (15) Dispensary; (16-17) Medical staff rooms; (18) Office nursing director; (19) Service stair and lavatories; (20) Bacteriological laboratory; (21) Entrance funeral parlor; (22) Funeral parlor; (23) Sterilization room; (24) Bacteriological laboratory; (25) Autopsy room; (26) Washing-up kitchen; (27) Bacteriological laboratory; (28) Administration office; (29) Admission room; (30) Waiting-room; (31) Porter's lodge; (32) Admission registration; (33) Call-box; (34) Main switch-board room; (35) Broom cupboard/closet; (36) Lavatory; (37-38) Wards; (38a) Bathroom; (38b) Kitchen; (39) Sewing-room; (42) Linen-room; (43) Linen-cupboard; (44) Dirty laundry sorting-room; (45) Broom cupboard; (46) Disinfection-room; (46a) Disinfection-room; (47) Linen storage-room; (48) Passage; (49) Cool provision room; (50) Storage room; (51) Lavatories; (52) Storage room; (53) Bathroom; (54) Examination room; (55-75) Isolation cubicles children; (76) Head of the kitchen; (77) Cloackroom and lavatory; (78) Dining-room domestic staff; (79) Passage to inner court; (80) Administrative department; (81) Chemistry laboratory; (82) Shower-room; (83) Telephone-room; (84) Entrance boiler-room; (85) Distribution kitchen; (86) Service room head-nurse; (87) Storage room beds; (85) Distribution kitchen; (89) Bread kitchen; (90) Cooking-kitchen; (91) Workshop; (92) Store-house.



First floor plan of the Sophia Children's Hospital on Gordelweg in 1937.

(a) Patients' elevator; (b) Nurses' elevator; (c) Food elevator; (f) Chute for dirty laundry; (101-102) Incubator rooms; (103-106) Non-infective neonates; (TK) Terrace rooms; (T) Lavatory; (107) Isolation-room; (108) Service room head-nurse; (109) Storage room; (110) Examination room ; (111) Linen-cupboard; (112) Washing-up kitchen; (113) Tea kitchen; (114) Bed-sitting room; (115) Sitting-room; (116) Sitting-room; (117) Bedroom; (118) Executive secretary; (119) Examination room; (120) Lavatory; (121) Broom cupboard; (122) Isolation room; (123) Internal ward; (124) Bathroom; (125-127) Internal department; (128) Bathroom; (129) Internal ward; (130) Bathroom; (131) Internal ward; (132) Corridor room; (133-137) Isolation rooms; (138) Lavatory; (139) Washing-up kitchen; (140) Dirty laundry room; (141) Examination room; (142) Service room head nurse; (143) Distribution kitchen; (144) Lavatory; (145) Storage room; (146) Linen-cupboard; (147) Serving-kitchen; (148) Nurses' dining-hall; (149) Nurses' recreation-room; (150) Cloakroom and lavatories; (151) Room medical director; (152) Library; (153-156) Bed-sitting rooms; (157) Bed-sitting room; (158) Piping shaft.



The Sophia Children's Hospital viewed from the garden; in the foreground the tuberculosis pavilion, later used as nurses' pavilion.

The L. van Stolk pavilion, including a reception hall and auditorium on the ground floor, and the nurses' rooms on the higher floors. In 1972 the building was equipped for the medical staff, the medical library and the hospital audiovisual department.

The centenary appearing on the agenda for 1963 would be pre-eminently suited to display the achievements of one hundred years of intramural care for the sick child. The daily press indeed paid great attention to the festivities, which included a performance by the Netherlands Marines Band, the cabaret show 'Sophisticated', the publication of a commemorative text, and the official gatherings at which the differences with child care in the year 1863 were enlarged upon. All the while, insiders were well aware that the centenary was celebrated against the background of a managerial crisis in the Sophia Children's Hospital which affected the medical staff as well. Looking back over the complicated alliances in these years that come to light from minutes of board meetings and other documents, one might characterize the 1963 crisis as an identity crisis. In 1957, just ten years after the decision to guarantee the council beds in the Sophia Children's Hospital, the municipal council had anew considered the hospital's position in connection with the question whether a children's department should be included in the new municipal hospital Dijkzigt, which was to replace the destroyed Coolsingel Hospital. The resolution to maintain the Sophia Children's Hospital as central facility for intramural pediatric internal and surgical care on the northern bank of the River Maas greatly strengthened its standing. However, its position was debated as well within quite a different framework, that of the advancement of medical higher education in Rotterdam. This subject will be outlined in more detail in the section dealing with education and research in the following chapter. Suffice it to say here that in spite of the architectural adaptations – including a new lecture hall and rooms for interns (1959) – and notwithstanding the scientific research ambitions the Sophia Children's Hospital displayed under the leadership of dr. Reerink – made evident by a research laboratory and the institution of the Sophia Foundation for Medical Research (1961)– and, last but not least, in spite of the long-standing good relationship with the Foundation Clinical Higher Education in Rotterdam which in 1958 had been promoted to ancillary faculty of the state universities in Leyden and Utrecht, it was not the Sophia Children's Hospital but the Zuiderziekenhuis that became the main center of pediatrics in Rotterdam. The lecturers in pediatrics in the Foundation *casu quo* the Ancillary Faculty were recruited from the medical staff of the Zuiderziekenhuis. In the mid-1960s this municipal hospital was also given a special accountability for the care and treatment of polio-patients, thus in the eyes of the general public the Sophia Children's Hospital, in spite of all the renovations it publicly boasted of, retained the allure of a peripheral specialist hospital, unable to attain top level on account of its staff composition, facilities and functioning.

However, mainly thanks to its chairman Mr. van Stolk, who was fully involved in the activities of the Zuiderziekenhuis regarding the care for pediatric polio-patients and who was also on the board of the Foundation Clinical Higher Education, the board of the Sophia Children's Hospital did not fail to recognize this trend. Announcing his resignation in 1963, dr. Reerink was apparently clearing the road for a drastic change of course under a new medical director. However, the ensuing heated discussion about the time when and the manner in which his departure should

HM Queen Juliana visiting the Sophia Children's Hospital , 11 June 1959. To the left of the queen the chairman of the board, Mr. L. van Stolk, to her right the medical director dr. H. Reerink and the deputy nursing director Mrs. R.M. van den Berg.

be arranged, as well as dr. Reerink's refusal to discuss these matters with the Board, turned the issue into a crisis of authority, leading to fierce polarizations amid the medical staff too.

Meanwhile the board unperturbedly went on recruiting a new medical director. Remarkable in this respect were the recommendations of the consulted professors of pediatrics, who apparently differed of opinion about the perspective for the development of the Sophia Children's Hospital. The Leyden professor dr. G.M.H. Veeneklaas (1909-1991), for instance, placed this development outside the academic framework, for which the Leyden pediatric clinic wished to maintain its regional monopoly. In contrast, the former lecturer in the Foundation Clinical Higher Education dr. J.H.P. Jonxis (1907-1995), then professor of pediatrics in Groningen, considered the Sophia Children's Hospital the obvious location for the flourishing of academic pediatrics in Rotterdam. Thus as early as 1963 he suggested his pupil and collaborator dr. H.K.A. Visser as a good candidate for the controversial vacancy Reerink. The board proposed to appoint dr. Visser in the position of medical director, side by side with dr. Reerink who declared himself willing to confine his directorship to research affairs. In the summer of 1964, however, dr. Visser informed the board that he was unable and unwilling to accept a dual set up like this. These discussions locked the Sophia Children's Hospital in a hold, or even a stranglehold, for three years. In 1965, as unexpectedly as surprisingly, the releasing move came with the announcement that a Medical Faculty would be established in Rotterdam. This decree marked the dawn of a completely new episode in the history of the Sophia Children's Hospital.

chapter 5

Medical developments 1866-1966

The preceding chapters portrayed, in different ways, the Sophia Children's Hospital in its current incarnation as an institution for medical and surgical research and treatment. After the first decades, in which the emphasis lay on care and nursing, whilst medical therapies hardly differed from what a medical practitioner could offer the sick child outside the Children's Hospital, a new period commenced with the move of the Children's Hospital to Westersingel (1878). Now, the new possibilities of medical diagnostics and surgical treatment would make or break the reputation of the institution. This new emphasis was intimated by many architectural features of the hospital, such as the new operating room (1888), the isolation ward (1888), the seaside convalescent home (1892), the laboratory (1894), the extension comprising the crib ward (1899) and incubator ward (1932) and last but not least the merger of the Children's Hospital with the Infant Clinic and the ensuing move to the new building on Gordelweg (1937). The above chapters also paid attention to the personal aspects of medical development, by describing the roles of the major representatives of the physicians and surgeons who are ranked among the pioneers of the Rotterdam Children's Hospital, and of the pediatricians and other specialists who followed in their wake. Finally, the patient statistics presented (numbers, length of hospital stay, mortality and major diagnoses for which they were admitted) represent as many parameters to assess the development of the Children's Hospital's medical functioning.

The present chapter deals in particular with the medical functioning of the facilities in the Children's Hospital and the strictly medical details that may complete the historical picture. The sources providing such details in fact are scarce. The annual reports and administrative documents mainly concern organizational and financial matters; it was not until 1879 that separate, brief accounts of the 'sub-committee for the health service' began to appear. Reports on the various departments and the

seaside convalescent home were added later. The most informative sources are abstracts of the lectures presented the physicians of the Children's Hospital to all kinds of medical bodies, notably to the Dutch Association of Pediatrics, and the publications of medical staff members in professional journals, notably in the *Maandschrift* (later *Tijdschrift*) *voor kindergeneeskunde*. Naturally the use of these sources yields a distorted picture of the general development of pediatrics and pediatric surgery in this period, since such publications largely leave out daily medical activities. In order to do justice to the actual developments, several general developments in the history of child medicine will be touched upon as well – though only cursorily.

Medical facilities and hospital organization

The composition of a chapter on medical advancements is hampered by the many changes and innovations in medical facilities, and the organization of medical service. The straightforward division between pediatrics and pediatric surgery, for example, is hard to maintain in clinical pictures which used to be presented for treatment to the pediatrician, but which later, thanks to new medical insights and medical-technical possibilities, were presented to the pediatric surgeon, or the other way round. Furthermore, we are confronted with the shifting boundaries of clinical and outpatient treatment, and have to reckon with the social-medical function of the Children's Hospital, notably with respect to the internal outpatient department in the first decades. In those years, major elements of its activities consisted in advising about diet and care of infants and children, and providing medicaments to the poor and those of limited means. However, with the advent of infant health center–s and the development of social-hygienic provisions in the twentieth century, the improved accessibility of primary healthcare provisions and general health information and education, the physicians in the outpatient department of the Children's Hospital were able to restrict themselves more and more to their medical-diagnostic and medical-therapeutic tasks. Lastly, medical activities were influenced by the widening of the age limit at admission, notably by the acceptance of infants (1899) and newborn babies (1900). The merger with the Infant Clinic in 1934 as a matter of fact hardly changed the proportion of infants and newborns in the total number of admission: in 1932, children younger than one year constituted 37.0% of all admissions, five years later that was 37.8%.

There was an increasing involvement of the other medical specialties that had developed since the end of the nineteenth century. As early as 1864, dr. de Monchy stated that 'painstaking research in the autopsy room and accurate bedside observation had brought to light the fact that the childhood organism deviates in so many respects – psychologically and pathologically, qualitatively and quantitatively – from that of an adult, that also in this field of clinical studies division of labor has become a necessity'. This 'division of labor' not only justified the existence of the

pediatric specialty, but also required the contribution of other specialties by means of consultants. In 1905, the first annual report after the death of dr. de Monchy mentions the involvement of three eye specialists, two ear, nose and throat (ENT) specialists and a neurologist. The early 1920s saw a gradual formalization of the relations with the other specialties. The first dermatologist (dr. C.M. Kleipool) is mentioned in 1921, next to the eye specialist dr. H.K. the Haas, the ENT specialists dr. P.A. Moerman and A.A.M. Nelissen, and the neurologists C.A. van der Loo and D.M. van Londen. The appointment of the orthopedic surgeon dr. Jagerink to the vacancy of dr. Van Rossem in the same year signified the introduction of pediatric orthopedics as an independent specialty within the Sophia Children's Hospital. The appointment of the first cardiologist (dr. A.H.J. the Haas) followed in 1922, those of the first radiologist (dr. P.B.V. Quartero) and the first physician for stomach, bowel and metabolic diseases (dr. F.A. Schalij) in 1925, and in 1929 a gynecologist (dr. D.G. Hoytema) also joined the group of regular consultants. After the Second World War, in 1948, plastic surgery obtained a firm footing in the Sophia Children's Hospital with the establishment of dr. J.C. Raadsveld. In 1952 – the very year that the pediatric surgeon dr. Vervat, according to the sources, 'initiated cardiac surgery' – dr. Janny H. Walbeek was appointed as the first female pediatric cardiologist.

Each of these specialties could be described in further detail and within a wider context. Ophthalmology, for example, would then have to be discussed within the development of the Rotterdam eye hospitals, where pediatric ophthalmology developed independently. In fact, the physicians of the Children's Hospital resorted to private institutions for all kinds of specific treatments. For radio-therapeutic treatment, a therapy regularly applied in the mid 1920s in particular for leukemia, they increasingly called on the Rotterdamsch Radio-Therapeutisch Instituut, headed since 1939 by the renowned radiologist dr. Daniël den Hoed (1897-1950). Children with lupus (skin tuberculosis) were referred to the afore mentioned Finsen-institution, which provided radium- and X-ray treatment for other diseases as well. The treatment offered in the seaside convalescent home at Katwijk aan Zee was competitive to some degree: run by a Rotterdam-based foundation, it took care of the same category of pediatric patients that the seaside convalescent home at Loosduinen catered for. Children with a physical handicap or orthopedic disease could still be treated and nursed in the Adriaan Foundation, in which the well-known orthopedist dr. J. van Assen (and later dr. Th. Boesman) was practicing. In the fields of chemical and bacteriological diagnostics, the Sophia Children's Hospital closely cooperated with the municipal laboratories (attached to the Coolsingel Hospital), and in the field of pharmacy and the supply of sera and vaccines with the Municipal Dispensary and the National Serum Institute, respectively.

The outpatient departments

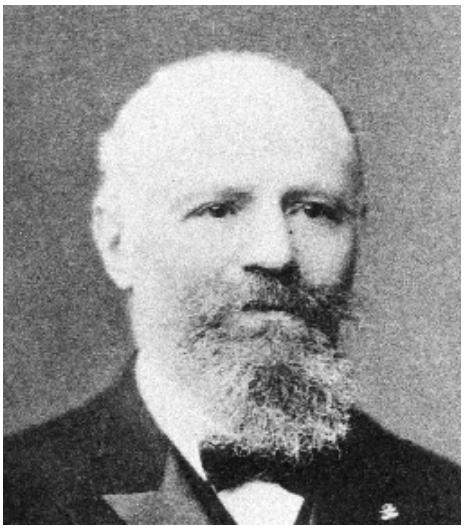
From the very beginning, the Children's Hospital offered the opportunity to have children with chronic conditions examined during stated 'consultation-hours', to decide 'whether a temporary admission by way of exception would be desirable'.

Top: the waiting room of the outpatient department of the Sophia Children's Hospital at Westersingel, around 1904. Bottom: in the consultation and examination room with dr. A. Bakhuysen Schuld ; at the table the nursing assistant director, nurse Emma Brown.

Especially because of the free supply of possibly required medicaments, the floods of patients on Tuesday and Friday afternoons had swollen to such proportions that it was decided, in 1868, to curb this opportunity drastically. This indeed considerably decreased the number of patients, but even without the free medicaments the outpatient consultation hours proved to supply in a strongly felt need. When in 1871 the young physician dr. Denekamp volunteered to assist 'not only for the consultation-hours, but also in the institution itself', dr. de Monchy and dr. Van der Hoeven saw occasion to extend the opening hours of the outpatient department to three afternoons per week. In 1875, dr. Denekamp became attached to the Sophia Children's Hospital as the first permanent pediatrician for outpatients. In the period 1872-1877 the number of outpatients quadrupled to over 1,600 children per year. From far and near, parents took their sick children to the Children's Hospital, which in the new building on Westersingel disposed of a spacious outpatient department. The flow from the region was facilitated by the new modes of transport, such as the steam tram line between Rotterdam and Schiedam established in the early 1880s. Within a year the number of outpatients coming in from Schiedam and Delfshaven increased fifteen-fold!

Although the outpatient department was intended for the poor, an increasing number of those who could afford the services of privately-established pediatricians (general practitioners-pediatricians) also attended. In 1880 it was therefore decided to supply 'admission tickets to a limited number', which were handed out the day before by the porter 'during the usual lunch break'. Consequently the consultation hours went by more quietly and orderly, more time was available per child, and if need be the number of tickets could be adapted to the circumstances. Less successful was a second measure (1881), aimed again at curbing the free supply of medicaments. An exception to the new rule that medicaments should be paid for, could only be made for parents or caregivers who were able to produce an inability-to-pay certificate, 'signed by two known residents of the municipality in which the child resides'. As a result, in 1882 no more than a hundred of the over four thousand recipients of medication actually paid even as much as 'a small contribution'! In the same period (1883), the evident demand for the surgical outpatient department led to dr. Burger's appointment as its permanent surgeon; from then on dr. Van der Hoeven would deal with clinical patients only. After the departure of dr. Burger (1889) and dr. Van der Hoeven (1890), the surgical clinic and outpatient department again came under the authority of one surgeon (dr. Van der Hoeven jr. and after 1906 dr. Van Rossem), but this was temporary: with the appointment of dr. Boevé to the surgical outpatient department, the division was reestablished for the years 1913-1920. When dr. Van Rossem left in 1920, the previous situation of combined responsibility was reinstated again.

The numbers of outpatients showed an upward curve until the end of the nineteenth century (see Figure 2). It should be noted, however, that, just as the admissions, the outpatient consultations were prone to significant seasonal variations. A decline set in at the end of the 1890s, when activities within the Sophia Children's



Two outpatient physicians of the Sophia Children's Hospital: left dr. M. Denekamp, active at the outpatient department for internal medicine from 1875 to 1899, who at his departure gave the initial impetus for a new neonatal unit; right dr. C.D. van Rossem, surgeon both at the department for surgery and at the outpatient department for surgery between 1906 and 1920.

Hospital came to focus more and more on the clinic. This reversal was associated with an administrative reorganization, including the introduction of a new tariff-system (1897) and a card-index system by which 'a number of abuses could be averted, and the high cost of the outpatient departments considerably reduced'. Moreover, it was decided not to fill the vacancy that arose from dr. Denekamp's departure in 1899. From then on, the pediatricians in the Children's Hospital combined work in the clinic and the outpatient department. In 1902 the outpatient department at Westersingel underwent substantial alterations, which included the refurbishment of the waiting rooms and consultation rooms, by which 'the waiting of the parents with baby-carriage in the street was wholly avoided'.

Over the years, a major part of the outpatient activities, especially those concerned with dietary advice, was taken over by the infant health centers. A further decrease in the numbers of outpatients resulted from the extension of the outpatient consulting hours for child medicine in the other Rotterdam hospitals, and the opening of outpatient clinics, where private pediatricians kept consulting hours. Thus the Sophia Children's Hospital let pass its central position in ambulatory pediatric healthcare in Rotterdam. The move to the new building at Gordelweg did not bring about a fundamental change in this respect: only a few small consultation rooms and a waiting room served to replace the outpatient accommodation at Westersingel. It was not until the years of the German occupation (1943) that the demand for internal outpatient consultation necessitated the institution of a third consulting hour, which was maintained after the war. Not only the internal and sur-

The outpatient department for internal medicine early 1920s: left (seen from behind) dr. Anna van Westrienen, right at the table medical director dr. L.B. de Monchy.

gical outpatient departments, but also the orthopedic (since 1920) and ear, nose and throat (since 1937) outpatient departments kept consulting hours, and after the Second World War a small ophthalmology outpatient department was in function for a couple of years (1946-1947). The arrival of a plastic surgeon in 1948 heralded the establishment of an outpatient department for this specialty.

In the middle of the 1950s, the outpatient department of the Children's Hospital underwent various changes. In terms of personnel, it was pediatrician dr. J.J. Pieterse, appointed in 1956 (filling the vacancy of dr. Anna van Westrienen), who would put his stamp on the functioning of the internal outpatient department in the following years. In terms of facilities, these years, in which the L. van Stolk pavilion (completed 1957) drew all attention, also saw the modernization and expansion of the outpatient department, including the furnishing of a 'room for metabolism and cardiology' and a dental surgery room. This refurbishment provided the surgical and orthopedic outpatient department with a 'small operating room', a plaster room and an improved sterilization room, waiting-room and dressing room. In the early 1960s, the remarkable plan to set up a 'mobile pediatric team' took shape. After the example of British healthcare, a mobile outpatient department would be constructed and parked at fixed locations in the city and the environs, in order to reduce the distance between patient and hospital location. In the end such an ambulatory facility never was realized, as it was deemed superfluous on account of the ubiquitous children's clinics and health centers in the densely populated Rotterdam region.

Ancillary services

At the time of the appointment of the first specialist for radiology (1925), X-rays had been part of the diagnostic (and therapeutic) facilities of the Sophia Children's Hospital for almost a quarter of a century. In 1900, during a study tour to Berlin, dr. Schuld was informed that 'a generous giver' was willing to finance an X-ray apparatus for the children's hospital, which made him decide to return by way of Erlangen in order to purchase there 'an X-ray apparatus equipped conform modern standards'. One year later the Rotterdam Children's Hospital could count itself among the few medical institutions which boasted this novelty, albeit with all the limitations and even dangers which were initially associated with the application of X-rays. It was not until 1919 that 'in the internal clinic as well, the Roentgen photos taken with this apparatus often proved to be a valuable aid for the diagnosis'. The apparatus purchased by dr. Schuld, for that matter, knew an eventful existence. 'For its operation a suitable person, who also performed household chores, was found' in 1913, but in the same year the apparatus had to undergo 'improvements and repairs'. Then the First World War proved an obstacle to its usage, first because the roentgen operator (Mr. J. Dogger), a former navy man, received a mobilization order, and next because a technical defect could not be repaired as it turned out to be impossible to import the essential spare part from Germany. Eventually it was decided to buy 'a more modernly equipped apparatus', which however remained on order for more than two years, before it was installed in 1918. A new roentgen room was furnished for this '*Glüh-Kathodenröhre* from Siemens and Halske' in the building on 11, Westersingel in 1920, whereupon the use of roentgen diagnostics rapidly intensified. This is reflected notably in the publications of surgeon Boevé, in which he did not fail to point out the shortcomings of the available equipment, and also regretted the lack of 'an apparatus for roentgen cinematography', especially for urethral peristalsis studies. In 1940, shortly after the move to Gordelweg, the leadership of the new radiology department came in the hands of the well-known radiographer-neurologist B.G. Ziedses des Plantes, the inventor of planigraphy. His main concern was with the implementation of a range of medical-technical improvements, but due to the circumstances of the time he was unable to adapt the accommodation radically. The desired adaptations only eventuated when his successor dr. J.H. Nauta had taken charge. Dr. Nauta also created a distinction between outpatient and clinical radiological activities: an innovation which in 1955 was festively inaugurated by prof. Muntendam.

Changing insights into the origin of infectious diseases led not only to the introduction of various isolation- and quarantine facilities at the end of the nineteenth century, but also to the creation of a room for chemical and bacteriological studies. With that, laboratory medicine made its entrance also in the Sophia Children's Hospital. In the 1890s, the resident of the surgical outpatient department, dr. Bakhuysen Schuld, proposed 'to take upon himself, wholly disinterestedly, the very time-consuming and strenuous scientific research in the laboratory'. In 1894 a small

attic room was found which could 'without many expenses be well furnished as a laboratory'. When dr. Siegenbeek van Heukelom became dr. Schuld's successor in 1906, both the laboratory's accommodation and equipment was modernized, but it is fair to say that the laboratory only broke free from its marginal position when the isolation rooms were moved and 'cubicle-nursing' was introduced in 1915. In this year 'a small though practical and well lit laboratory ... which could be well ventilated' was furnished in the front part of the isolation building, and in 1919 dr. Siegenbeek van Heukelom extended his activities to a full-time occupation. In these years, pathological-anatomical studies also became a regular part of the medical activities, conducted by the consecutive anatomists of the Coolsingelziekenhuis, Evert Cornelis van Rijssel (1889-1937), Manuel Straub (1894-1961) and Carel Bernard Frederik Daamen (1904-1976). The latter started performing pathological demonstrations for the medical staff in 1959.

The vacancy left by dr. Siegenbeek van Heukelom was not filled after the move to the new building on Gordelweg. Clinical-chemical and bacteriological testing was done by the pediatricians themselves, or was contracted out to private or municipal laboratory facilities in Rotterdam. Especially dr. Van Westrienen intensively engaged herself in laboratory studies. At her insistence is was decided in 1941 to appoint the Sophia Children's Hospital's first analyst, Miss G.M. van Bokkum, in order to 'make it possible to perform the steadily increasing number of studies and activities in the laboratory as much as possible in-doors'. The medical director dr. Reerink's interest in laboratory work led to the appointment in 1949 of the first clinical chemist in the Sophia Children's Hospital, dr. Jan Kornelis Bottema, and the furnishing of a 'routine-laboratory and bacteriological laboratory' in 1950. Paper-chromatographical and electrophoretical investigations were then among the advanced techniques; Bottema's successor dr. H. Schouten dedicated himself to the study of nephrogenic diabetes insipidus in particular. With the arrival of dr. Ben Gershôm in 1959, research came to focus on enzyme deficiencies in children and its consequences for dietary therapy. These developments necessitated constant adaptations and renovations. The necessary extension of the laboratory followed on the occasion of the hospital's anniversary in 1963.

Pediatrics

In the era before the rise of the university centers for the sick child, the children's hospitals occupied only a minor position within the whole of pediatric facilities. Most hospitals, both the general ones and the denominational ones which steeply rose in number in the first half of the twentieth century, disposed of a pediatric department, kept pediatric consultation hours in the outpatient department, and had provisions for the nursing and treatment of newborn babies in the obstetric departments. Even though the Sophia Children's Hospital was a relatively large institution, still the development of a single children's hospital cannot serve as a

model for the general development of the pediatric specialty and the related subspecialties in this period. A comparative study of the position of the Sophia Children's Hospital amidst the other facilities will have to await a wider study of intramural pediatric care in the Netherlands.

Nutrition and diseases of the digestive organs

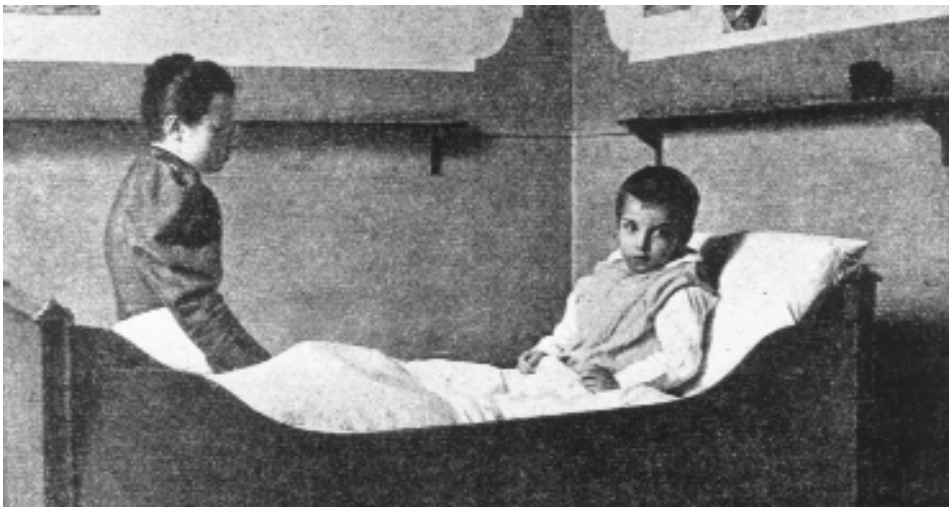
The theme of nutrition is central to the history of pediatrics, and also holds a prominent position in the historical annals of the Sophia Children's Hospital. In particular in the first decades, propaganda for a healthy diet, underpinned by the results of scientific nutritional research, was among the most important tasks of the Rotterdam Children's Hospital. The earliest reports on its medical activities, therefore, dilate upon the advantages of feeding infants naturally with breast milk, the search for good artificial formulas, and the possibilities of improving and restoring the health of infants and children by adapting their diets.

In the outpatient department of the Children's Hospital, most time was spent on providing information about nutrition; and 'deficient and unsuitable nutrition' and 'diseases of the stomach and the intestines' were by far the most frequent diagnoses. Over the years 1880-1920, half of all patients fell into either category. The outpatient department thus offered the physicians 'a large field for observation of the fatal consequences of the deficient and unsuitable nutrition of the child, especially in the first months of life'. This situation was mainly caused by the fact that the poorer section of the population, to which most parents who came to the outpatient department belonged, was forced by labor conditions to refrain from breastfeeding. Although the implementation of an Act exempting mothers of infants from factory work (1889) slightly improved their situation, the majority still had to resort to artificial formulas. The annual reports by dr. de Monchy and dr. Denekamp, which aimed at giving the contributors of the Association Sophia Children's Hospital and Nurses' Association an impression of their activities, supply us with extensive descriptions of the misconceptions and misuses among the population which they had to fight. People had to learn to distinguish between food for infants, children and adults. Regularly the physicians were called in 'for children who in their first months of life were given no other food than gruel; also often for children who morning and evening were given a bowl of semolina alternated with a small bottle of sago-water; or for children who just after birth are put on porridge'. Moreover, elementary knowledge of hygiene, both of the foodstuffs and of utensils such as feeding-bottle and comforter, was lacking. Misunderstandings about the nature of gastrointestinal disorders in infants and young children, usually attributed to the dentition, were persistent. 'The teeth are on the chest, on the heart, or in the belly is what we can daily hear unthinking mothers assert', as dr. Denekamp wrote in his outpatient department report. To his mind this 'teeth superstition' was the main cause for the 'marble-white chubby cheeks, dropsically swollen hands and feet, bloated hard bellies' with which one was faced during the consultation hours: the very pictures of 'feebleness and anemia to the highest degree'. Elsewhere he wrote

The large ward of the Sophia Children's Hospital at Westersingel, around 1925.

that he often laid eyes on 'the characteristic, round, pallid, swill-fat porridge-faces of children who do get filled up, but are not fed well'. In 1891, dr. Denekamp illustrated this situation by literally reproducing a mother's account of her sick child: 'That 'asty pudding, sir, it's a godsend and 'e laps it up; but, you see, now 'e can't take it anymore. Day and night 'e's having the cramps. I ain't been in bed for 14 days, walking around with 'im trying to 'ush 'im. And look at 'im now; might be dead by the looks of 'im.'

Theoretically, the simplest solution was to prescribe cow's milk or buttermilk, but in practice this presented all kinds of problems. Not all cow's milk could pass for cow's milk. Many cows, when in the shed, were partially or exclusively fed diluted fodder ('swill'), which resulted in milk that infants could not stomach and which caused severe diarrhea. Particularly the cow's milk from the neighborhood of Schiedam was notorious for its bad quality as a result of this 'swill'. For this reason, the physicians in the outpatient department of the Sophia Children's Hospital initially advised those mothers who were unable to breastfeed, to give their children buttermilk, a choice which was rather debated in the then medical world. In the early 1880s, dr. Denekamp announced his increasing preference for cow's milk, since the buttermilk was no longer supplied 'as fresh and pure' as before, and the cow's milk had improved in quality. To give the milk tepid 'with addition of a little white



A special room was available for patients with serious diseases. The photo was part of a feature on the Children's Hospital in the *Wereldkroniek*, 1903.

sugar' in 'a bottle with short pacifier, because that can easiest and best be cleansed', was his advice. From the publications of the pediatricians involved, it appears that in those years one used a special Rotterdam formula, namely a mixture of twenty grams of arrowroot and twenty grams of lactose to one liter of water and milk, initially with and later without added sodium bicarbonate. The constipation that sometimes resulted from the use of arrowroot was counteracted by additional feeding with buttermilk.

Around the turn of the century, the supply of milk improved significantly, mainly due to the inspections which the various dairy factories in and around Rotterdam were subjected to. The opening of the Hygienic Milking Shed *De Vaan* has been mentioned previously. Furthermore, the hygiene of infant nutrition improved thanks to the introduction of the so-called 'thermophore', which not only heated milk to the correct temperature, but could also guarantee it was pasteurized. Within the Children's Hospital itself, dairy kitchens were now installed to replace the earlier porridge kitchens.

The best alternative for a mother's breastfeeding was evidently the use of a wet nurse, but the organization within which these surrogate mothers could be called in, left much to be desired as yet. First and foremost, the poorer section of the population in general could not afford to hire a wet nurse. Then there was the problem that wet nurses who offered their services cheaply, usually did so at the expense of the nutrition and care-taking of their own children, as they contracted too many customers. Additionally, the wet nurse system carried the risk of spreading infectious diseases (especially syphilis and tuberculosis were dreaded), while all kinds of misuses were also current, such as augmentation of milk production by electrical

stimulation and the consumption of special foodstuffs (such as salted cow's udder) that were thought to stimulate lactation. In the 1880s, the Children's Hospital attempted to counter these drawbacks by propagating the use of 'walking wet nurses': women 'who breastfeed the other child next to her own infant and to this aim make their way to the home of the foster child several times a day'. Soon this appeared not to be an adequate solution. 'The woman mostly does not produce enough mother's milk to feed two children. If the distance between her own home and that of the foster child should be somewhat long, then the constant walking to and fro is too tiresome for her; she visits irregularly, usually too late. Besides, she sometimes makes exorbitant demands, is often also unclean, in short every experienced physician is aware of the numerous difficulties involving walking wet nurses'. Around 1900, when the infant department was opened, it was attempted to meet these problems by admitting the wet nurse and her child to the Children's Hospital. This allowed for continuous monitoring, and if necessary one could dispose of an extra worker. However, on account of the relatively high cost, in combination with lack of space, it was not long before this initiative foundered.

During the ascent of the infant health centers in the 1920s, a system was developed by which young mothers parted with their superfluous milk and made it available through these centers. For many years, until after 1950 in the Sophia Children's Hospital, the collection of 'mother's milk from various ladies' was among the daily activities of the porter, Mr. J. Groeneveld. It was not until modern industrial patent baby-food became available that this service came to an end.

The major role of nutrition in the pathology of childhood diseases is clinically reflected in the great importance attached to better nutrition of the infants and children after their admission. Even in many diseases attributable to other causes, an improvement of the child's general nutritional status was usually an important if not decisive step on the way to recovery. Next to the expenses for standard nutrition, the expenses for fortifying food were therefore important items in the running account of the Children's Hospital. Apart from the traditional strengthening foodstuffs, such as sago and eggs, these included wine and particular types of milk, such as ass's milk which, as dr. de Monchy wrote in 1879, 'in terms of its chemical composition and easy digestibility most closely resembles mother's milk'. In the 1920s creamed flour soup was in use in the Infant Clinic. The first reports on over-sensitivity to certain foodstuffs date from those years. Moreover, the increasing knowledge of vitamins, discovered in 1914, set up ever more critical standards for infant nutrition in this respect as well. Especially in the 1940s, both in the years of German occupation and in the years of reconstruction thereafter, vitamin deficiencies loomed large in the patients admitted for medical treatment in the Sophia Children's Hospital. Notably severe cases of rickets (treated with a buffer dose of vitamin-D) and Barlow's disease (vitamin C deficiency) were diagnosed in these years. Especially in the years of the German occupation, when severely undernourished and dehydrated children were admitted to the clinic, the introduction of the so-called 'intravenous drip-clyster of Schick' was a veritable godsend. The subcutaneous injections with

Medical director dr. L.B. de Monchy with his secretary, early 1920s.

salt- and sugar solutions became a thing of the past. Although the insertion of a blunt needle into a vein in the early years was still considered a surgical procedure, inserting a drip soon became a routine procedure without which the modern children's clinic cannot be imagined.

Infectious diseases, contagion and isolation

Next to the nutritional disorders, infectious diseases constituted the second major category of conditions faced by the pediatricians in the Sophia Children's Hospital. At the time the Children's Hospital was opened in 1863, doctors were still in utter uncertainty regarding the majority of these diseases, as to both the mechanism of infection, and the nature of the disease process. While some ascribed the spread of infectious diseases to foul vapors (*miasmata*), others took a direct transmission of infectious matter into consideration. In the hospices and hospitals, where the mass mortality of infectious diseases was responsible for the widespread 'hospital phobia', it was attempted to avert the risk by fumigations with chloric vapors and by cleaning the walls and floors with caustic fluids. All this applied to the children's hospitals in particular, firstly because many infectious diseases are typical of childhood and secondly because the patients' bad physical condition increased their susceptibility to infection. As long as the role of microorganisms was largely unknown, the diagnosis of infectious diseases was based on combinations of certain symptoms and characteristic features in the disease courses. Some diseases which were considered infectious later proved not to be so, such as rickets or the English disease, and the other way round; the significant diagnosis of diarrhea would later largely be allocated to the different causative agents of bowel infections. The available data on the diagnoses of patients in the early years are too scant for statistical analysis. In

1872 for example the 72 treated children were classified by 31 diagnoses, among which meningitis, typhoid fevers, boils, eye inflammations and inflammations of the bladder. Treatment of the symptoms was the only therapy available. Whooping cough, for instance, was treated with emetics and powders made of flowers of sulfur and alum, and a patient with scarlet fever by means of bloodletting, placing leeches and 'hot simmerings of the lower extremities'.

Essential in fighting the spread of infectious diseases was the isolation both of children who were admitted with suspicious symptoms, and of patients who, in the course of their stay, were found to suffer from such a disease. Despite the emphasis placed by dr. de Monchy and his colleagues on adequate provisions for isolating patients in whom an infectious disease was diagnosed, the otherwise grandly designed new children's hospital on Westersingel did not have facilities other than 'a small room for suspicious diseases' in the attic. For years, the lack of sufficient accommodation for the nursing of infectious patients, and the observation of suspect patients, remained a repetitive theme in the annual reports, until in September 1888 the isolation building described above was taken into use.

Much attention was paid in those years to the treatment of scrofula and all kinds of tuberculosis. The Sea Hospitium convalescent home became the obvious location for the nursing and treatment of these patients. 'The institution on the beach at Kijkduin is for our Hospital an indispensable refuge for the benefit of those little sufferers from severe scrofula and joint-tuberculosis who at our place are pining away year after year, and after we have spent a lot of money on them, nevertheless eventually die, though we know from experience that the sea air, provided it is breathed in long enough and therefore not only in summer, might have saved and cured them', as dr. de Monchy wrote in the 1891 annual report.

The infectious diseases in the Children's Hospital on Westersingel only became a focal point again in 1893, when eight cases of chicken pox, two of whooping cough and four of scarlet fever were diagnosed, and in addition patients and staff were afflicted by an influenza epidemic. Seeing that, in this situation, the isolation building provided insufficient room, a separate room for the children with scarlet fever was furnished in the 'front attic' of the main building, and extra beds became available by debarring croup patients from admission. The next year, dr. de Monchy decided to create a permanent facility in the attic for the nursing of children with measles and scarlet fever. Children with more severe types of infectious diseases were directly transferred to the isolation pavilion of the Coolsingel Hospital. From then on, the isolation building was used only for the nursing of children with diphtheria and croup. For both these conditions, with their high mortality rates, tracheotomy and intubation were considered the ultimate remedies. As far as diphtheria is concerned, this situation changed profoundly after Emil von Behring (1854-1917) had discovered the antiserum therapy. When in 1894 the 'healing serum against diphtheria' was introduced universally, the Sophia Children's Hospital did not lag behind. On 6 October 1894 the first injection was performed, and thanks to its resounding success seventeen other children were injected in the same year. Of

these seventeen children, as dr. de Monchy set out in the annual report, only one died, 'a very young child who was admitted to the Hospital more dead than alive, so that the windpipe incision had to be performed under the simultaneous application of artificial ventilation'. In the first quarter of 1895, another eighteen children were 'successfully' (seven tracheotomies, one non-survivor) treated, which proved plentiful grounds for dr. de Monchy to embrace 'the new remedy as a highly important therapeutic improvement', even though he felt he ought to tone down the excitement immediately with a warning against 'overwrought expectations, because the experience from the past years has sufficiently taught us that too hastily believing what one hopes to be true will not seldom lead to bitter disappointment'. The introduction of the anti-diphtheria serum for that matter constituted the direct cause of the earlier-mentioned opening in 1894 of the laboratory headed by dr. Bakhuysen Schuld.

In the ensuing years, the ward for croup- and diphtheria patients in the isolation building remained a much-debated aspect of the activities of the Children's Hospital. In 1897 dr. de Monchy reported extensively on the 49 children who had been nursed there in the previous year, mentioning that twelve of them suffered from 'laryngitis with croup-cough without plaques on the uvula', 25 from 'laryngitis and diphteritis faucium' and twelve from 'diphteritis faucium without affection of the larynx': all children had been treated with an anti-diphtheria serum, while tracheotomy had been performed in fifteen children, of whom four had died (27%!). The fact that the mortality rate in these 49 patients amounted to over 14% dr. de Monchy rated as 'very satisfactory, considering that some of the patients were admitted in a hopeless condition'.

The success in the treatment of diphtheria, however, did not offer a solution for the problematic nature of the infectious diseases in general. The possibilities for isolating patients and keeping them in quarantine gradually came to be seen as insufficient. This shortcoming became painfully clear at the start of the First World War, when the Sophia Children's Hospital was confronted with 'numerous Belgian children' who after the hardships of a weeks' long journey sought shelter in the hospital. Receiving them was in fact irresponsible as long as the possibilities for isolation and quarantine were lacking. With more than normal interest dr. de Monchy Jr. followed the developments of that very period in the Juliana Children's Hospital in The Hague, where in 1913 cubicles had been introduced after French example. This entailed that children, on admission, were placed in a ward where two meter high partitions were set up around the bed of the patient, the lower half made of wood, the upper half of plate-glass, this in order to prevent the spread of infectious diseases. In each ward a fully closed cubicle was available for cases of chicken box, rubella, measles and scarlet fever 'for temporary isolation, when a symptom is observed that might point to the beginning of an infectious disease'. The theoretical benefits of cubicles in practice soon appeared less advantageous than expected. Apart from the only partial isolation by the half-length glass partitions, disinfecting the cubicles proved problematic, since for want of good disinfectants no more than

The small isolation room for children with diphteria or croup, around 1890. Next to the patient is dr. J. van der Hoeven Jr.; near the ventilation machine is Mrs. H.C.S. Simon van der Aa-van Marselis Hartsinck.

'a careful, wet cleaning of the walls' could be effected, whereas the more efficacious disinfection with formalin vapors could only be carried out after all patients had been removed from the ward. When in 1919 scarlet fever made several victims among patients and staff, dr. de Monchy decided to furnish every ward with 'observation beds, specially intended for new patients'. 'These beds', thus runs the description, 'are placed between partitions. The nurse who takes care of these patients will take the same precautions with regard to desinfection as with a patient suffering from an infectious disease. Should it become evident, after several days, that one of the newly admitted patients indeed carries an infectious disease, then it is our hope that ward infection can be prevented by this measure. A cubicle was already present in each ward for suspected cases.'

The move to the new building on Gordelweg in 1937 heralded the end of this era of provisional and inadequate isolation facilities. Each department now boasted quarantine cubicles, in which all patients were nursed for a fortnight from their admission; and several 'glass window screens' were installed in the wards, by which means the principle of ward nursing was retained without creating a dismal 'poky' atmosphere. The application of low window-frames and colorful paint, too, aimed

exclusively at improving the living climate for the children in the wards. Extra measures such as the use of separate sanitary fittings for each cubicle, and a new visiting schedule which reduced the numbers of visiting siblings to a minimum, completed the new regime.

Soon, however, these joys were marred by discontent. First of all, the admission capacity was now no longer dependent on the number of beds but on the number of quarantine cubicles. In 1938 it was decided to install an additional thirteen cubicles, but in as little as a year it was concluded that even 57 cubicles did not suffice. Secondly, all precautionary measures notwithstanding, the Children's Hospital remained prey to several serious infectious diseases. After the burdens of a polio-epidemic in 1938, in 1939 the Sophia Children's Hospital had to contend with an outbreak of bacillary dysentery (treated by means of fluid suppletion and the administration of polyvalent serum), on account of which it was necessary to nurse more than one child per cubicle.

The eventual solution for these problems around the nursing and treatment of patients with infectious diseases did not derive from further architectural improvements, but from the discovery of sulphonamides (1935) and the introduction of antibiotics (1944). A new chapter began for the Sophia Children's Hospital in 1937, with the 'ample application' of Prontosil (sulfanilamide), despite the physicians' complaints about its adverse side-effects (agranulocytosis). The next year the new sulfa compound Dagenan held a prominent position on the therapy list, for example for the treatment of encephalitis. These chemotherapeutics paved the way for the introduction of penicillin, the strange antibiotic which surgeon dr. Boevé managed to get hold of for the first time in an English hospital, shortly after the liberation. Even severe infectious diseases, such as pneumococcal meningitis, several infections of the bladder and congenital syphilis (for which the combined administration of mercury and neosalvarsan was then common practice), now proved to be effectively treatable. Furthermore, in 1947 the antibiotic streptomycin became available as a treatment for tuberculosis, the foremost public health hazard of the time. Soon a different use could be sought for the wooden annex, installed in the garden in 1946, which replaced the ward created in 1942 – by renovating several service rooms around the inner courtyard of the Gordelweg building – to cater for tuberculosis patients after the closure of the Sea Hospitium.

Thanks to all these changes, in particular the abatement of the problems concerning infants' food and the major infectious diseases, pediatrics could begin to dedicate itself to the study and treatment of less common types of childhood diseases. A comprehensive study of the 'endemic diarrhea in newborns' which had plagued the Sophia Children's Hospital for years, resulted, after an extensive bacteriological study in 1953, in the identification of the Bacillus coli-Bray as specific cause of this hospital infection. Within the framework of this study, the Sophia Children's Hospital was the first in the Netherlands to diagnose, in 1950, 'interstitial plasmacellular pneumonia'. Around 1960 the pathologist dr. Daamen studied extensively the hyaline membrane diseases in newborns, a clinical picture that had long been known. Despite the

Cubicle nursing in the new building at Gordelweg: left the children's department, right the corridor of the neonatal unit.

improved knowledge of the pathophysiological mechanisms, an effective treatment for this disease continued to be a desideratum.

The new insights in the fields of bacteriology and immunology also offered new possibilities for the prevention of infectious diseases. After the discovery of active immunization and its application in humans (1885), the long existing practice of smallpox vaccination was extended to the prevention of various other infectious diseases. The introduction of the nationwide immunization program in 1952, including the triple vaccination against diphtheria, tetanus and whooping cough, obviously affected the disease statistics of the Sophia Children's Hospital. The discovery of the Salk-vaccine in 1957 provided the first protection against polio, until then a regular and relentless disease in the children's hospital. In 1917 an epidemic had delivered 21 children to the outpatient department, where however no clinical treatment for this disease (formerly called Heine-Medin disease) could be offered. During the above-mentioned polio epidemic of 1938, the then available antiserum was used for the first time on a large scale, and orthopedic follow-up care for the victims grew to be part of the pediatricians' involvement. In the course of the notorious 1956 epidemic, eighteen patients with serious palsy were admitted to the Sophia Children's Hospital. For the lengthy after-treatment and follow-up care of these patients, the hospital called on the special facilities in the Zuiderziekenhuis (*De Ark*).

Newborn and infant care

While the first decades of the twentieth century saw great progress in the field of medicine for children after the first year of life, the care for newborns and infants

remained a modest and moreover disheartening element in the Sophia Children's Hospital. Since the first 'incubator' had been installed in a simple bathing cubicle at Westersingel around the turn of the century, little had changed in neonatal care. The small room in the extra building at Westersingel that was singled out for prematurely born babies in 1931 counted even after the merger with the Infant Clinic in its new attire at Gordelweg no more than two 'Dräger-Isolette'-incubators. And whenever there was a shortage of staff to contend with, it was easily decided to close down the prematures' and infants' unit. Furthermore, closure was frequently necessitated by the occurrence of hospital infections ('virus diarrhea'). For a long time, the mortality rate among the premature newborns remained extremely high. In 1940, 40% of the admitted children died; in 1950 this was still 32%. Ten years later this mortality rate had halved. As the proportion of prematures to the total number of patients was relatively small, the influence of this mortality on the statistics of the Sophia Children's Hospital as a whole was limited. Much more impact had the mortality among infants, which amounted to around 70% of total mortality. What was gained, in terms of statistics, by the new possibilities of diagnostics and treatment, was often lost again by the increasing severity of the disorders for which treatment was sought. For both the congenital morphological anomalies, and the inborn errors of metabolism, which used to result in inevitable death, surgical or medical treatment now more often held out prospects of recovery, or at least of a correction to such an extent that children could survive with their handicaps.

Just as the internal outpatient department, the infant unit also accurately reflected the socio-economic conditions that were decisive for the well-being of young children. In his report on the year 1919, dr. de Monchy Jr. illustrated the slump brought about by the First World War with the description of the bad condition in which infants were admitted. More than ever the hospital accepted 'special cases', 'especially alarming numbers of neglected poor things …; many children whose being was unwanted and whose recuperation not even desired now that they were there; children whose mothers were missing when they were discharged or not easily willing to take back the child once it was cured'. In this year nine infants suffered from syphilis so severe that outpatient treatment did not suffice. The reports and communications that were published during the Second World War offer a no less sad picture of infants 'in a state of starvation and filthiness as we in our country have never known', 'atrophic infants with their knees pulled up, bended arms and the peaky old man's face, the skin without turgidity' and 'frozen, starved infants to whom the death-blow was dealt by dysentery'.

Less sensitive to economic fluctuations, though no less serious, was the state in which infants of barge masters were admitted to the Sophia Children's Hospital. Dr. de Monchy Jr. in 1928 reported 'usually severely ill wretches', of whom an average of thirty per cent died after admission. Supplementary to the information provided by the health centers, the Sophia Children's Hospital distributed among this section of the population a special circular letter which emphatically pointed at the need and possibilities to offer infants adequate nutrition and care.

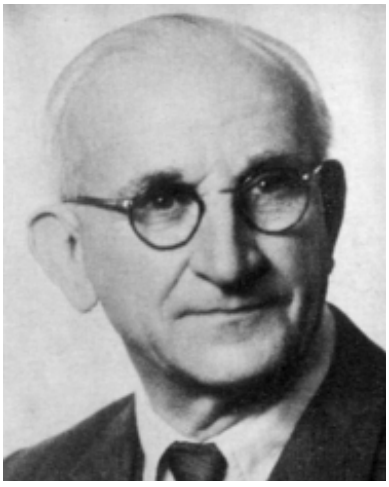
In the field of neonatology, the Sophia Children's Hospital relied on a nationally recognized authority in the person of dr. Anna van Westrienen. Her extensive list of publications includes dozens of scientific contributions about the diseases found in newborns and infants, in which she followed closely the international literature and the activities in the large institutions for pediatrics abroad. Her special interest went out to congenital anomalies, the topic of her Ph.D. thesis. Side by side with many clinical case histories and reports on her scientific research, she published important reviews in the *Maandschrift voor Kindergeneeskunde*, among other things on 'cerebral anomalies in neonates' (1933) and on 'sick neonates' in general (1937).

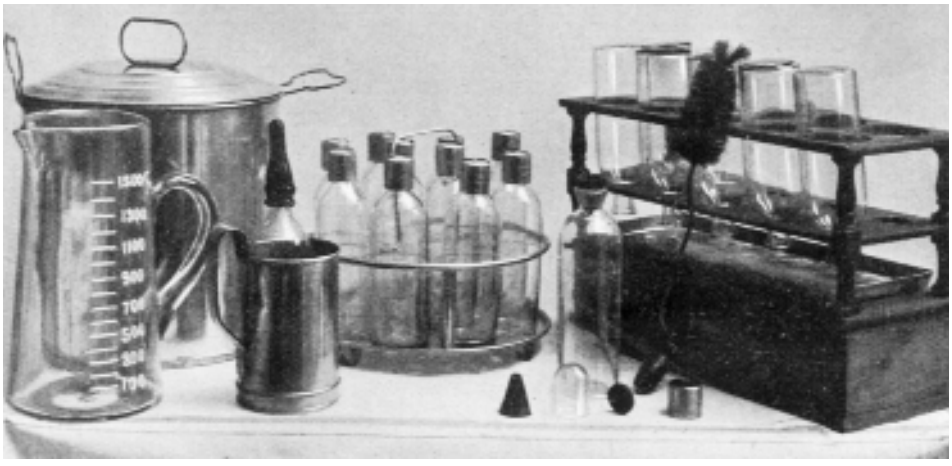
Under her leadership, the Sophia Children's Hospital in 1951 saw the introduction of exchange transfusion as a therapy for the fetal erythroblastosis that was responsible for serious clinical symptoms in newborns (icterus gravis neonatorum). As late as 1934 dr. Van Westrienen and her Rotterdam colleague general practitioner-pediatrician Mrs. Anna van Ormondt (1905-1965) had reported 'four cases of unfamiliar icterus in newborn children', stating that the prognosis for these children was 'very, almost absolutely, unfavorable' and that one was 'completely in the dark' about the etiology of this disorder. The children were treated with liquefied liver extracts and with blood transfusion, in which only the blood group was taken into account and no exchange transfusion was applied. Dr. Van Westrienen reported in the *Maandschrift* about the discovery of the rhesus factor (1939), and the possibilities for the treatment of congenital erythroblastosis with Rh-positive blood. The technical realization of the exchange transfusion followed in 1951, as a new milestone in the development of neonatology. The next step was taken at the end of the 1960s with the introduction of rhesus immunization, with which the disorder could be dealt with preventively.

The pediatric specialties

The attention paid to fetal erythroblastosis was part of a much wider interest in hematological diseases in the Sophia Children's Hospital. Not only dr. Van Westrienen, but also the medical director dr. de Monchy Jr. and his future successor dr. Reerink showed particular interest in this aspect of pediatrics, thus establishing a certain tradition for this specialty in the history of the Sophia Children's Hospital. With the arrival of prof. Visser, who had obtained his Ph.D. degree on research into fetal hemoglobine, supervised by his tutor prof. Jonxis, this tradition continued without interruption.

For the treatment of children with anemia, a condition widely diagnosed in the clinic and the outpatient department, four therapies were in use for years: the alimentary one, in which anemia was corrected through diet; the medicinal one, usually by administration of iron tonics; one involving intramuscular or subcutaneous blood injections ('intended as stimulus for the bone marrow and partly as small infusion', as dr. Van Westrienen wrote in 1934); and blood transfusion. The alimentary method was usually the least cumbersome, although carrying out dr. Denekamp's advice to the mother of an eighteen-month-old child to 'let her child use fresh sheep's blood,





Above, left: dr. F.M.C. Hengeveld in the outpatient department; above, right: his portrait. Below a Soxhlet machine, intended to optimize bottle feeding hygiene.

to which end she and her child daily had to repair to the abattoir', must have entailed some difficulties. In cases in which intestinal parasites caused the anemia, the alimentary therapy naturally aimed at eliminating this cause. In the 1930s, surgical therapy, too, was applied in exceptional cases of anemia, namely by removing the spleen.

Severe hematological disorders included malignant neoplasms, in particular leukemia. As early as 1908, dr. Siegenbeek van Heukelom published on the treatment of this disease in the Sophia Children's Hospital, but until well into the fifties of the last century, no effective therapy was available. In 1951, dr. Reerink initiated the formation of 'a hematological team', in order to study the disease in collabora-

Two remarkable physicians, attached to the Sophia Children's Hospital. Left dr. J.H. Perk, medical head of the seaside convalescent home Sea Hospitium at Loosduinen between 1888 and 1903. Right dr. Anna van Westrienen, pediatrician at the Sophia Children's Hospital for thirty years (1919-1948), and held in great esteem in the field of pediatrics in the Netherlands.

tion with representatives of the other pediatric disciplines, and to further the development of cytostatic treatment.

Throughout these years, the pediatricians of the Sophia Children's Hospital published on conditions which are now considered part of the specialty of pediatric endocrinology. It started with the surgical treatment of thyroid gland disorders, followed by the developments which, in the years between both world wars, yielded new insights into the action of hormones, and in part also offered new possibilities for medical treatment. The studies by dr. Siegenbeek van Heukelom and dr. Van Westrienen on the 'fatty degeneration of pituitary origin' and by dr. de Monchy Jr. on a variety of growth disorders, constitute fine examples of this. Around 1960 dr. Reerink collaborated with the clinical chemist dr. Schouten in research on nephrogenic diabetes insipidus. The era of modern pediatric endocrinology only truly commenced, however, with the arrival of prof. Visser and the transformation of the Sophia Children's Hospital into a university hospital.

Finally the fields of neurology and psychiatry, which in this period were the combined area of work of the 'physician for nervous diseases and mental disorders', deserve mention. The Sophia Children's Hospital was not the obvious institution for the treatment of children with psychiatric problems, even though the annual reports repeatedly mention the diagnoses 'nervous disorders' and 'idiocy'. From their writings it may be deduced that the pediatricians in the Sophia Children's Hospital were alive to the psychic factors in the pathology of pediatric diseases and to psychiatric disorders in children. For instance, as early as 1864 dr. de Monchy had

advocated a 'quiet, balanced care of the explosive mind' of children. In 1888, hypnosis was enthusiastically and successfully applied in the treatment of a badly stuttering child, and in 1938 dr. Hengeveld described a ten-year-old boy 'who, like and infant, at play and in school, keeps forgetting several essential controls, with as a result a less pleasant welcome at home'. A treatment aimed at 'giving self-confidence' appeared sufficient to cure this boy who 'was born a neuropath from nervous parents'. In the years when child psychiatry started to manifest itself as an independent specialty, and the youth care 'Medical Educational Bureaus' opened their doors, the physicians in the Sophia Children's Hospital repeatedly voiced their desire for 'a psychologist- and psychiatrist room, preferably with an observation playroom'. For lack of space, personnel and money, however, this wish could not as yet be granted. The entrée of child psychiatry into the Sophia Children's Hospital had to wait until it reinvented itself as a university institution.

The treatment of children with neurological disorders was initially entirely in the hands of the pediatricians and surgeons of the Sophia Children's Hospital; it was not until the early 1920s that neurologists joined the collective of consultant-specialists. A fine example of a surgical (orthopedic) procedure was the use of suspension therapy in a patient with palsy in 1888. The procedure entailed 'that the patient, in a common *Schwebe*, as it is used for applying Sayre's plaster casts, is suspended for a few moments by his chin and the back of his head in order to thereby stretch the spine'. Surprising recovery followed, and the child enjoyed the therapy so much 'that it was quite disappointed when for some reason the treatment could not be applied'. In the 1940s, the Sophia Children's Hospital could count on the expertise of radiologist-neurologist dr. Ziedses des Plantes, who was succeeded in 1954 by the future professor of neurology dr. J.W.G. ter Braak.

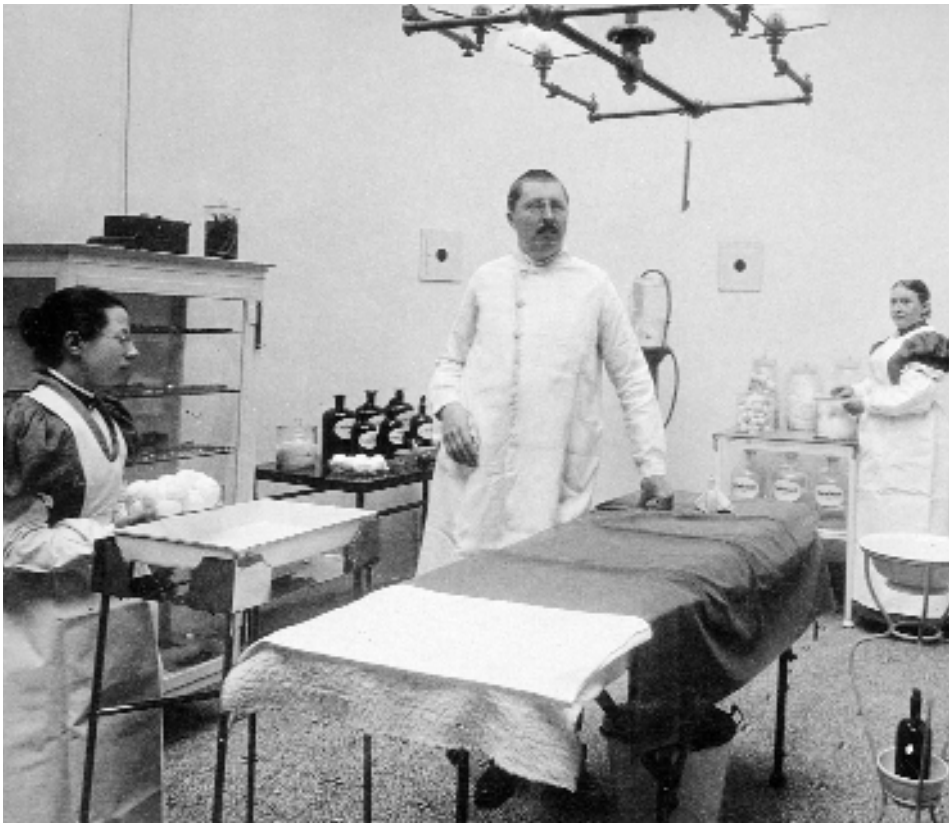
Pediatric surgery

Except for the treatment of injuries or external conditions, surgery in the early years of the Sophia Children's Hospital hardly offered possibilities for the treatment of adults, let alone of children. Anesthesia, discovered in 1846, could be applied on a wider scale in the mid 1880s, also owing to the use of less dangerous agents and the invention of local anesthesia. Until the introduction, in the early 1880s, of carbolic and iodoform dressing, the antisepsis propagated in 1867 by Joseph Lister (1827-1912) remained a cumbersome procedure, with all kinds of adverse side effects on account of the carbolic acid which was sprayed over the operation area. The introduction of carbolic and iodoform dressing in the early 1880s signified the beginning of a new era for antiseptic surgery; and aseptic medicine, in which sterility was the obvious means to prevent wound infections, soon developed. With the implementation of anesthesia and antisepsis, the surgical discipline began a true triumphal march, in which ever more daring, ever more refined and ever more complicated operations were performed.

Surgeon Jan van der Hoeven Sr. followed these developments closely, both in the Coolsingel Hospital, where he had been appointed surgeon in 1869, and, since its institution, in the Sophia Children's Hospital where he practiced as close colleague of dr. de Monchy. Besides 'minor surgery', such as the treatment of skin diseases and burns, the removal of 'foreign bodies', the opening up of abscesses and the treatment of fractures, also further-reaching interventions were performed in the 1860s and 1870s, on a small scale and in exceptional cases. These included tracheotomies, hernia operations, harelip corrections, exarticulations of joints ruined by osteomyelitis and tuberculosis, and other orthopedic interventions, for example tendon surgery in rachitic curvatures. In the early years, such major operations took place on average once every five weeks; in 1869 over the whole year only 'a single important operation' is mentioned, namely 'the removal of a stone, which however could not save the little patient'. On the occasion of the celebration of the silver anniversary, dr. Van der Hoeven recorded that in the years 1863-1888 a total of 83 joint resections had been performed, among which 57 hip resections, 26 amputations, ten osteotomies and thirteen rib resections. In most of these cases, tuberculosis was the underlying cause of the condition. In this same period nearly one hundred urological interventions had been performed to remove calculi. The five gastrotomies which are mentioned among the major operations date from the 1880s, when the previously mentioned surgeon Billroth made the stomach resection widely known. This series also included the creation of a stomach fistula in a patient with an esophageal stenosis.

A quarter of the patients died after the surgical intervention; a great many suffered postoperatively from wound infections and fistula- and abscess formation. After dr. Van der Hoeven had implemented, in 1881, 'the careful application of Lister's method in wound dressing', the results improved considerably. 'In order to be able to fully appreciate the great results of modern wound treatment one should have known the erstwhile misery. Such recoveries as are obtained now used to be exceptional', dr. de Monchy asserted in his report to the members of the Association.

In the early years, the accommodation in which the surgeon was expected to perform his interventions consisted of a small room, which since the move to Westersingel was part of the surgical outpatient department on the ground floor, and even opened directly onto the vestibule. Any degree of isolation was thus out of the question. With about four hundred patients per year in the early 1880s, there was a constant to-and-fro during the consultation hours. This situation was aggravated by the arrival of dr. Burger, as he would be occupied particularly with the surgical outpatient department. Nevertheless, these years saw the first outlines of the surgical specialties, i.e. orthopedics and otorhinolaryngology, being drawn within the Sophia Children's Hospital. They were apparent in the decision to improve the treatment of scoliosis patients with Sayre's plaster casts through instituting a special consultation hour on Friday afternoon, and in the purchase of a *thermocauthère* according to Paquelin (1877), intended for the removal of enlarged tonsils.



Dr. J. van der Hoeven Jr. in the operating room of the Sophia Children's Hospital, Westersingel, around 1890. In the back, second from the right, nursing assistant director Mrs. H.C.S. Simon van der Aa-van Marselis Hartsinck.

A turning point in the nineteenth century history of the surgical department of the Sophia Children's Hospital was the occupation of a new operating room in 1888. To replace the room next to the front door, a new location was chosen on the top floor of the rear building, where, free from any disturbance, the ideal of an operating room for the aseptic surgery could be realized. The space was given a fully oval form, thus doing away with any corners and seams in walls and floor where dirt might build up. Furthermore it was tiled with smooth tiles that could easily be disinfected. Light entered through two glass panels in the ceiling, and a four-branched gas chandelier was suspended above the operating table. All furniture was of simple construction and made of metal or glass, thus avoiding the use of 'organic material'. Besides the operating table there was a wash-basin, 'an appliance for the desinfection of instruments and dressings, a table for laid out instruments, and another table on which essential instruments and dressings, preserved in well-closed glass

bottles or in metal boxes, and protected from filthiness, are kept ready for use'. Striking was the control of ventilation via recesses in the walls in which Bunsen burners were placed, so that the carbolic, ether, chloroform and other foul vapors could escape with the rising air. The building and furnishing of this ultramodern operation room was executed simultaneously with the renovation of the operation room in the Coolsingel Hospital, so that both projects together were presented in the medical press as the creation of dr. Van der Hoeven Sr.

Dr. Van der Hoeven himself would not use this new operation room for long. For reasons of health he had to let his assistant in the Coolsingel Hospital, dr. Daniël H. Koetser (1864-1934), replace him in early 1890; a few months later he definitively laid down his office as a surgeon and was succeeded by his son of the same name. Shortly afterwards, dr. Van der Hoeven Jr. accepted a busy position in the recently opened Diaconessenhuis in Rotterdam (1892), which, coinciding with the departure of dr. Burger, who was not succeeded, as it did, meant that all attention of the new surgeon had to go out to the outpatient department. Here a consultation hour was held three times a week, visited by 700 to 800 patients per year. This situation was expected to change when dr. Van der Hoeven Jr. would succeed his father as surgeon of the Coolsingel Hospital, but to his great disappointment he was passed over for this position. Having filled the vacancy of dr. de Monchy as director of the Sophia Children's Hospital for a short while, dr. Van der Hoeven left in 1906 and established himself as a surgeon at Zutphen.

Under the leadership of his successor dr. Van Rossem, a second period of ascent began for the surgical department of the Sophia Children's Hospital. Within a few years the number of outpatients rose to an average of 900 per year, and the number of clinical operations from 151 in 1906 to 211 in 1918: a 40% increase over twelve years. More important than this quantitative development, however, was that of the quality of the surgery. With both the Van der Hoevens and Van Rossem, the Sophia Children's Hospital had several well-reputed surgeons at its disposal, as is also attested by the publications in which especially dr. Van der Hoeven Jr. and dr. Van Rossem reported on remarkable operations and surgical conditions in children. Thus dr. Van der Hoeven Jr. wrote, among other things, about the success of iodoform injections in tuberculous joint diseases (1892); about the treatment of children with congenital dislocations of the hip by means of plaster casts (1898); about his preference for the sticking plaster cast over the plaster of Paris dressing – on account of the risk of gangrene (1905), given that children with fractures used to be admitted to the clinic, whereas now most of them were treated in the outpatient department –; and about a girl with ovarian hernia (1907), in which case he noted in passing that by no means all parents of children in whom an operable condition was diagnosed, actually gave their consent for the operation. In 1904 he wrote an extensive report about oncological cases in the Sophia Children's Hospital, for most of which surgical intervention actually appeared impossible. This oncological series included several brain tumors which could not be localized anatomically, and a large number of sarcomas, among which a sarcoma of the prostate in a six-year-old

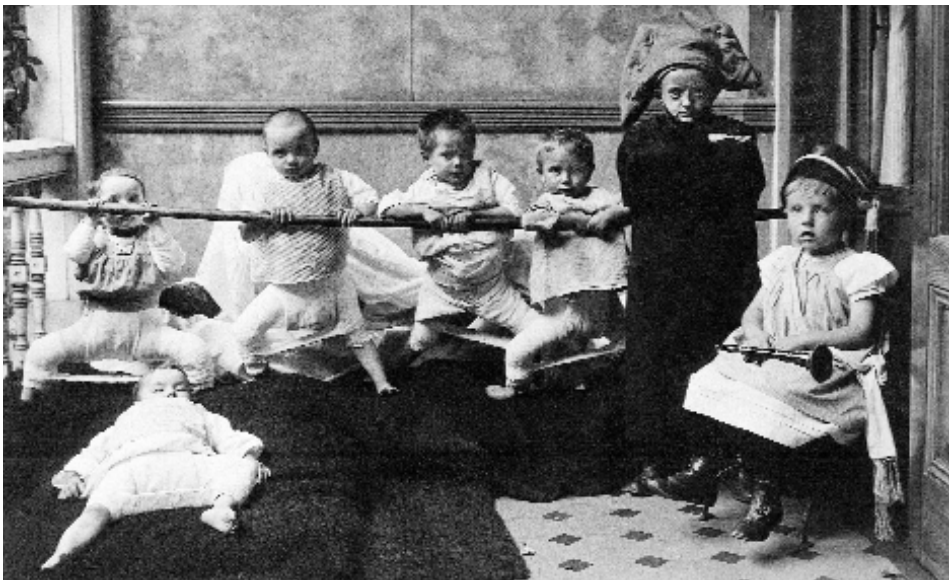
boy, who after a protracted agony of catheterizations eventually died 'wholly worn out and emaciated'.

Much attention was paid to the surgical treatment of intestinal diseases. In 1896 dr. Van der Hoeven Jr. published a report in the *Nederlandsch Tijdschrift voor Geneeskunde* (*Netherlands Journal of Medicine*) on a successful colon resection in an infant with intestinal invagination, which he claimed was an international innovation in pediatric surgery. Five years later he reported about ten other infants treated for intestinal invagination, whose therapy, however, had consisted of rectal injections with air or water, because from dr. Van der Hoeven's own experience 70% of the infants with this condition died after surgical intervention. In 1918 dr. Van Rossem presented to his colleagues in the Dutch Pediatric Association a series of 33 children, whom he had treated for the same condition in the Sophia Children's Hospital in the years 1906-1916. Seventeen children he had successfully operated upon, fourteen children had died after the operation (42%), and two children spontaneously recovered. One of both latter patients was a bargeman's child, 'who after consultation of five doctors who only prescribed powders and potions, finally was seen by a child specialist, who took off the diapers and was faced with a one decimeter long mummified invaginatum hanging from the anus'.

Other aspects of gastrointestinal surgery are also described in the annals of the Sophia Children's Hospital. Some such operations were of special interest, for instance one performed by surgeon Paul Fockens (1876-1955), attached to the Rotterdam Jewish Hospital, who as *locum tenens* of dr. Van Rossem in the Children's Hospital was the first to operate successfully upon a newborn boy with congenital anal atresia. Five months postoperatively, the child presented as 'a healthy infant, who drinks eagerly, does not vomit and produces normal stools several times a day'. The treatment of the classic clinical picture of congenital pyloric stenosis was transformed in 1912 with the introduction of Ramstedt's operative technique, which put an end to treatment with opium, stomach irrigation and frequent feedings. In 1915 dr. Van Rossem commented that much time was still wasted with such internal treatment, on account of which children with this condition 'were at the point of dying when entrusted to the care of the surgeon, who then with the operation will bring them to the grave, and thus achieves statistical results that do not encourage surgical treatment'. 'This view', says dr. Van Rossem, 'namely that surgery of infantile pyloric stenosis has a very bad outcome, is wrong. Especially in view of the fact that since Ramstedt's method the operation is so little intrusive and so short of duration.' The whole operation took five minutes and could be performed via a stomach incision of less than two centimeters.

A remarkable surgical report, even if only for the portrait of the era it offers, was the medical history of a newborn baby with an umbilical hernia which dr. Van Rossem presented at a meeting of the Netherlands Surgical Society in 1916.

In the morning at six o'clock a motorcycle with wicker carrier in front pulls up at my door. In the wicker chair, the 70-year-old grandmother, who is also the dry-



Among the frequently applied orthopedic and surgical procedures were splinting as a means of treating congenital hip dislocation (above); the trachea cannula that was used for instance with diphteria patients (below, left); and suspension therapy, serving to remove pressure from the vertebral column and to correct spinal curvature (below, right).

nurse, with the patient in her lap. On the motorcycle the physician, who informs me of the following: at three o'clock at night delivery in a day-laborer's cottage in the country with poor paraffin lighting. Having attended to the new mother, who because of bleeding required much attention, the dry-nurse points out to the physician that the umbilical cord is so thick. Of the opinion that a little too much Wharton's jelly is present, and hoping to stimulate the drying up of the umbilical cord, the physician makes a little cut into the cord, from which to his dismay

intestines come out. On account of the squealing of the child ever more intestines emerge from the little hole, until finally all small bowels are outside the abdomen. The doctor judged it to be a lost case and conveyed this to the parents. But when the child went on squealing he did not want to abandon an attempt to save a fine and healthy child and, having enveloped the child in a tatter of cotton wool, set out for a one and a half hour ride on the motorbike through the wintry cold (it was December) to Rotterdam. Without any desinfection of the child, and having removed as much of the cotton wool sticking to the bowel as possible, I circumcised the umbilical cord, ligated the umbilical veins and repositioned the bowels into the abdomen. No *ductus omphalomeseraicus*, no Meckels' *diverticulum* is found, no adhesions with the hernial cavity. The abdominal wall is closed by layered sutures. Recovery *per primam*. Eight days later the child is discharged as a model of a healthy infant.

Dr. Van Rossem's leaving in 1920 changed the situation to the effect that surgeon dr. Boevé, since 1913 in charge of the surgical outpatient department, became responsible for the activities in the surgical department, together with the newly appointed dr. Jagerink. With the arrival of dr. Jagerink, who had specialized as an orthopedic surgeon, the Sophia Children's Hospital now officially had this specialty at its disposal, and could open a new outpatient consultation hour for patients with orthopedic conditions as a result. Even so, the 1920s, 1930s and the following years of the German occupation certainly do not constitute a golden age in the history of pediatric surgery in the Rotterdam Children's Hospital. The surgical department suffered from the general malaise of the period even more than the internal department. Illustrative is the annual report of 1930, which shows that of the total number of over one thousand outpatients, 59% visited the internal, 24% the surgical and 17% the orthopedic outpatient department – which is to say a total of 420 patients over the whole year, divided over the work areas of two surgeons. From the list of operations it appears that in that year 157 operations were performed (on average three per week!), among other things for inguinal and umbilical hernias (35%), appendicitis (11%), pyloric hypertrophy, oncological conditions and harelip (each 6%), osteomyelitis (4%), empyema and kidney disease (both 3%). Mortality among the patients operated upon was 6%. In these years both general and orthopedic surgery in the Sophia Children's Hospital were eclipsed by their sister departments in the general and denominational hospitals in Rotterdam, where large surgical departments flourished. Within this framework, the importance of the Adriaan Foundation in the field of orthopedics must be mentioned emphatically. This situation did not change significantly with the taking in use of the new hospital at Gordelweg and the surgical accommodation available there. For a short while, when dr. M.L. Beerman had filled the vacancy of dr. Jagerink in 1938, orthopedics seemed to be at the verge of a revival. Dr. Beerman's plea for an earlier admission of orthopedic patients, his preference for the early correction of congenital malformations, and his conviction that one should counteract tuberculous processes outside

the loci as well, offered new perspectives, but the outbreak of the Second World War prevented the realization of these plans. Nor was dr. J.L. ten Kate, successor to dr. Beerman (1941), capable of bringing orthopedic pediatric surgery into blossom under these circumstances.

From his many publications, it appears that dr. Boevé showed a special interest in urological interventions. Apart from the classic conditions, such as stone formation in the bladder and kidneys, these related especially to complications of rickets and tuberculosis (urethral stenoses) and all kinds of birth defects, for example urethra reduplication and epispadia and hypospadia. In spite of the difficulty and painfulness of the procedure (during which morphine was administered), dr. Boevé regularly used the cystoscope for diagnostic purposes. Around 1930 neurosurgical interventions were cautiously introduced, especially in children with hydrocephalus, and also for diagnostic purposes, such as in ventriculo- and encefalography. Now that the application of the X-ray techniques no longer remained restricted to skeleton photography, the cooperation between surgeon and radiographer became increasingly important and intensive. Furthermore, it is striking how in these publications growing attention was paid to the conditions required for the success of these operations, which became ever more complicated and drastic. Thus dr. Boevé, in a 1935 contribution on surgery of the diaphragm, wrote extensively about the problems with anesthesia and the necessary regulation of the child's physiological processes. This growing attention for pre- and postoperative care necessitated an ever closer contact between (pediatric) surgeon and pediatrician in these years, but in practice the relationship between the two specialist categories did not always come easy. It is a telling fact that for years (1928-1953), a general practitioner was called in for medical assistance and consultations in the surgical department of the Sophia Children's Hospital. This same medic, dr. Bartholomeus Quispel (1888-1972), who later specialized as cardiologist, was also charged with the medical care of the hospital staff.

The era of modern pediatric surgery as an independent and fully-fledged surgical specialty started off in the Sophia Children's Hospital when dr. David Vervat (1914-2000) succeeded dr. Boevé in 1949. Unlike his predecessors, who had also had busy practices as a general surgeon elsewhere, dr. Vervat would dedicate himself completely to his post in the Sophia Children's Hospital. An intensive growth of the surgical department followed in the 1950s and 1960s, as can easily be read from the figures showing the numbers of outpatients and the numbers of admissions (Figures 3 and 4). While in 1950, 798 operations were performed by dr. Vervat, in 1964 the number was 1,254 operations carried out jointly with his colleague pediatric surgeon dr. J.A. Noordijk (1918-1990), who was appointed in 1960. The number of operations by the plastic surgeon (since 1963 together with dr. J.C. van der Meulen) in the same period rose from 181 to 261, those by the orthopedic surgeon from 69 to 127, and those by the ear, nose and throat (ENT) specialist from 19 to 1,384.

The operating room of the Sophia Children's Hospital at Westersingel around 1935. Left surgeon dr. H.J. Boevé, at the head dr. J. Siegebeek van Heukelom as anesthetist, and right orthopedic surgeon dr. Th.A. Jagerink.

In opposition to his predecessors who were active as soloists, dr. Vervat opted for cooperation: with the representatives of the other surgical specialties; the pediatricians; and the sub- and superspecialties that developed within the pediatric discipline. His ideal of a 'surgical pediatrics' implied a marriage of all medical disciplines for an optimal treatment of the surgically sick child. In an article about surgery on the newborn (1960), dr. Vervat claimed a place for specialized nursing in this teamwork as well. 'It is unfeasible and useless to build up an organization to realize an early diagnosis by a general practitioner, pediatrician, obstetrician and midwife, to found a center for pediatric surgery and to be backed up by a fully-fledged laboratory, if one can not dispose of a team of nurses specially trained to this aim, without whose enthusiasm, dedication and perception, the surgical treatment of the newborn with serious congenital anomalies is doomed to fail'. His striving for this wide cooperation of pediatric disciplines was crowned by his election as a honorary member of the Dutch Pediatric Association in 1967.

A first signal that pediatric surgery was to embark on a new course under the leadership of dr. Vervat, was the appointment (1951) of J. van 't Oever (1918-1983), an anesthesiologist of international standing, and of the first anesthetic nurse. The administration of anesthetics was no longer left to accidentally available general practitioners and pediatricians. Dr. Vervat's interest in orthopedics, a specialty with which he had become familiar when in training with the previously mentioned

orthopedist dr. Van Assen, formed a new impetus for cooperation with the orthopedic surgeon dr. Ten Kate. It was in this very period that orthopedics changed its range of action, in particular due to the disappearance of rickets, which now could be effectively prevented with vitamin D; of tuberculosis, which could be controlled with streptomycin and PAS (1952); and of polio, which, owing to the previously described introduction of the Salk vaccine (1957), dropped out of the picture in a short time. 'Poliomyelitis and bone tuberculosis', thus wrote dr. Ten Kate in 1964, 'are afflictions with which the young orthopedist will not be confronted in his practice'. Shortly before dr. Vervat's appointment, the Sophia Children's Hospital had taken on dr. J.C. Raadsveld (1912-1978) as plastic surgeon (1948), a surgical specialist with a large practice in several Rotterdam hospitals. The close cooperation between the pediatric surgeon, the ENT specialist and the plastic surgeon resulted in enhanced treatment of schisis patients, using the newest treatment methods.

New avenues were explored with great skill and courage, such as the treatment of congenital malformations, which category already in 1950 was represented with twenty per cent in the hospital's statistics. The operative treatment of funnel chest and megacolon were among the sensational successes of the department in 1951. A year later dr. Vervat performed the first surgical correction of esophageal atresia, an operation which from then on ranked among the specialties of surgery in the Sophia Children's Hospital. In 1955 the new treatment of burns followed, involving trauma control, early excision and transplantation; and in 1956 dr. Vervat and his colleague dr. Reerink published on the application of intra-arterial blood transfusion in four patients, two of whom 'were admitted under toxic-infectious influences in a very bad condition and died while the intervention was still in progress', yet in the others 'the strange sensation of a prompt re-establishment of the circulation' was noted. Dr. Vervat proved to be too far ahead of his time in his attempt, in the early fifties, to follow international developments by developing pediatric cardiac surgery as well in the Sophia Children's Hospital.

Public interest for these developments in the Sophia Children's Hospital was never lacking. Dr. Vervat and (since 1960) dr. Noordijk presented the results obtained in the clinic of the Sophia Children's Hospital at many congresses and symposia. The former's fame as a pediatric surgeon did not remain confined to his own country. In 1953 he was one of the founders of the British Association of Pediatric Surgeons, in 1956 he organized the first international meeting of pediatric surgeons in the Sophia Children's Hospital, and in 1964 he was one of the initiators of the first international scientific journal for pediatric surgery, the *Journal of Pediatric Surgery*, and acted as host-chairman of the International Congress of the British Association of Pediatric Surgeons. International prizes were awarded to some of the medical-surgical films made by the chairman of the Sophia Children's Hospital Board, Mr. Van Stolk. He documented all kinds of special operations, such as the treatment of Volkmann's contracture, the correction of congenital ocular anomalies (goniotomy), the operation according to Spitz-Holzer and the correction of funnel chest. The operation upon an orang utan in the Rotterdam Zoo Blijdorp

The operating room of the Sophia Children's Hospital new building on Gordelweg at the opening in 1937.

(1961) and the unfortunately failed separation of a siamese twin (1968: the first successful separation followed in 1974) sparked great public interest.

Unlike the department of pediatrics, where drastic reorganizations were required and the conditions necessary for the development of childhood medicine within the framework of a university center had not yet been met, the department of pediatric surgery was ready, by 1965, to welcome the metamorphosis which the establishment of the Medical Faculty Rotterdam was to signify for the Sophia Children's Hospital.

Education and research

When the Children's Hospital was founded in 1863, Rotterdam boasted a flourishing medical training facility. Giving the education provided at this Medical School, dr. Bezeth could rightly recommend the newly opened Children's Hospital as a 'training school for childhood medicine'. However, the new government regulation concerning medicine, issued by Thorbecke (1865), forced the school to close its doors, after which medical education in Rotterdam was confined to several local non-academic programs, such as that of the State Midwifery Teacher Training College, and to the clinical training of students from the universities of Leyden and Utrecht in its

municipal hospitals. In line with dr. de Monchy's conviction, 'that a good education in pediatrics forms an integrating and indispensable element in the schooling of the physician', interns and medical students from elsewhere were also welcomed in the Children's Hospital. Regarding the outpatient department it was claimed in 1879 that 'just as in previous years all proceedings were followed with interest by the young doctors and medical candidates'. Several pediatricians from the Sophia Children's Hospital contributed substantially to postgraduate medical education, which flourished in Rotterdam shortly after the turn of the century (1902) in the shape of the nationally renowned 'Rotterdam Physician Courses'. In 1926 dr. Van Westrienen organized the first physician course solely dedicated to pediatrics. The establishment of the Foundation Clinical Higher Education in May 1950 heralded the dawn of a new era. This Foundation arranged placements for medical graduates from Utrecht and Leyden in Rotterdam hospitals, where for the different specialties lecturers were appointed to the medical faculty of either town. In this way, the Children's Hospital also became associated to the Foundation Clinical Higher Education as a training institute, just like the pediatric departments of the Sint Franciscus Gasthuis and of the Zuiderziekenhuis. The pediatrician of the Zuiderziekenhuis dr. J.H.P. Jonxis was appointed lecturer in pediatrics. After his appointment as professor of pediatrics in Groningen (1951), dr. Jonxis was succeeded by dr. Jan Engelhardt (1914-1978), also active in the Zuiderziekenhuis. Educational assistants were assigned to the other two hospitals, a position which was filled in the Sophia Children's Hospital by dr. Tiliene Janssen. Subsequently, internships were carried through without difficulties; reports are unanimous regarding the successful cooperation between the Sophia Children's Hospital and the Foundation Clinical Higher Education. The only problems were those of space, but those were solved speedily by the extension of the garden pavilion.

The Sophia Children's Hospital functioned as conference center not only for the Rotterdam Physician Courses, which were frequented by participants from the whole region, but also for the Dutch Pediatric Association, during whose meetings the medics from the Sophia Children's Hospital took upon themselves the major part of the scientific program. A remarkable initiative was the publication of the handbook *Kindergeneeskunde. Aanwinsten op diagnostisch en therapeutisch gebied* (*Pediatrics. Accomplishments in Diagnosis and Therapy*), which came out in 1964 under the editorship of dr. Reerink and dr. W. van Zeben, his colleague-director of the Juliana Children's Hospital in The Hague. In this book, several specialists of the Sophia Children's Hospital presented the current state of the art in their fields. The association with a semi-academic institution as the Foundation Clinical Higher Education enhanced the desire for scientific research, which had known a long tradition in the Sophia Children's Hospital. The achievements of dr. Willem Nolen (1854-1939) in the 1880s have previously been mentioned. Clinical and pathological-anatomical data, especially concerning tuberculosis, constituted his field of action, until he was called upon to accept a chair as professor in internal medicine in Leyden in 1890. Financial support to set up modern research, however, was lacking:

Pediatric surgeon dr. Vervat, photographed with the twohundredth patient to be operated on for pylorospasm at the Sophia Children's Hospital.

the State nor the municipality were prepared to fund such research in the Sophia Children's Hospital. The solution was sought in the establishment of a 'support fund to assist expanding professional research', which came into being on 11 April 1961, under the name of Sophia Foundation for Medical Research, while the grounds given were 'that research in this hospital has come to suffer too much under the clinical duties which have to be the priorities for too small a staff, so that it is no longer desirable to have both tasks performed by the same people'. Thanks to financial support from citizens and companies, the Foundation soon had sufficient capital at its disposal to finance hematologically oriented studies in particular. The transformation of the mid-1960s, which resulted from the establishment of the Medical Faculty Rotterdam and the arrival of prof. Visser, would prove a turning point in this development.

chapter 6

From children's hospital to university center for the sick child 1966-1994

In many respects and for various reasons, 1965 was a memorable year in the medical history of Rotterdam. Its undisputed high point was the decision by the Council of Ministers (May 1965) to establish, in the near future, a seventh medical faculty in Rotterdam. The then Minister of Education, Arts and Sciences, Mr. I.A. Diepenhorst, appointed as building dean of the new faculty prof. Andries Querido, the Leyden professor of endocrinology, thus offering Rotterdam the promise of an academic institution in which prof. Querido's ideals about the necessary reforms of medical training and research could be implemented. These ideals entailed the improvement of the pre-clinical stage of the medical curriculum in particular, to be achieved by paying more attention to the practical-scientific training of the future doctor. Also according to these ideals, the existing distinction between the pre-clinical and the clinical stages of the medical curriculum had to be removed, in order to enhance the impact of the basic subjects on medical practice, and to intensify the interaction between fundamental medical-scientific and patient-bound research. To meet these aims, a teaching staff had to be recruited, consisting of young yet experienced researchers and, with regard to the clinical subjects, of seasoned specialists with a strong medical-biological research orientation.

The establishment of the medical faculty changed not only the future prospects of the Sophia Children's Hospital, but also those of the institutions for higher education long present in Rotterdam, specifically the Netherlands School of Economics and the Foundation for Higher Medical Education. Moreover, the foundation of the Medical Faculty Rotterdam (MFR) added a new dimension to the development of the Rotterdam hospital system, which was undergoing profound changes at this very time, the mid-1960s.

The Rotterdam hospital system around 1965

Naturally, the first thought of the Faculty's founders was to build an entirely new university hospital, separate from the existing intramural facilities. This idea, however, was soon abandoned, as it would result in a large surplus of hospital beds in the region. Their minds then turned to the biggest hospital in Rotterdam: the Municipal Hospital Dijkzigt. From a general hospital which limited its sphere of action to the north bank of the River Maas (seconded by the municipal hospital on Bergweg), Dijkzigt was to be transformed into a university hospital: a center of education, research and clinical care of the highest quality, with a regional and even supra-regional function. Even though the creation of a new structure for clinical education was postponed until 1970 (when the clinical phase of the fourth year of medical studies would begin), and the focus for the moment lay on setting up facilities for pre-clinical education, it was clear from the start that such a metamorphosis, in such a short time, would hardly be possible. Only a few years before (18 September 1961), Princess Beatrix had officially opened the impressive new building of the Municipal Hospital Dijkzigt on the Hoboken land, to which the Coolsingel Hospital had been moved at the end of the fifties. Neither the architectural nor the organizational structure of Dijkzigt was equal to the demands made by medical training and research. Besides, it was clear in advance that the accommodation of Dijkzigt was insufficient and unsuitable to meet future demands for laboratories and training positions for interns. Extension and adaptation of the buildings and affiliations with other general hospitals in Rotterdam and environs were necessary to alleviate this situation.

In addition to the architecture, the administration and organization of Dijkzigt Hospital had to be changed substantially. For the status of university hospital to be obtained, the State had to take over the ownership, management and administration of the hospital from the City Council: a thorny issue since, according to the then current legislation, a university hospital could not possess a corporate personality. This situation only changed on 1 May 1971, when the amendment to the University Education Act 'for the regulation of the university hospitals attached to State universities and the transfer of corporate personality onto these hospitals' came into effect. In the meantime, Dijkzigt could only be taken over from the Council by the MFR, a government establishment that did have corporate personality. In the middle of 1966, the administration of Dijkzigt was transferred from the Council of Rotterdam to the executive committee of the MFR. The MFR, however, did not dispose of the means to pay the 85 million guilders asking price for the Municipal Hospital. This arbitrary, yet not inordinate amount had to be provided by the State, in particular by the Ministry of Education, Arts and Sciences. Negotiations reached a favorable conclusion on 1 October 1967, but not without laborious consultations between the Council of Rotterdam and the State, whose principal negotiators were Mr. G.E. van Walsum, former Mayor of Rotterdam and former Chairman of the Committee for Preparing the MFR, and Mr. O.A. Thissen,

The building complex of the Medical Faculty at Hoboken in 1980, seen from the Euromast. Left University Hospital Dijkzigt, right the high rise building of the Medical Faculty, with the low rise of the Thorax center in front. To the far right the low rise building with the lecture halls.

former secretary of the Committee for Preparing the MFR and since 1966 secretary of the MFR, respectively. The MFR now took upon itself the running of and the responsibility for the hospital, whilst the administration of the Dijkzigt Hospital was passed to the executive committee of the MFR. Mr. Thissen and his staff were put in charge of the administrative secretariat; the constitution of the Board of Dijkzigt remained unchanged for the time being. Such was the state of affairs while the Act concerning the status of the Academic Hospitals was awaited.

The transformation of Dijkzigt was only one, though not the least, of the many changes brought about in the Rotterdam hospital system in the mid-1960s. Thus in both other municipal hospitals, the Bergwegziekenhuis (in the northern part of town) and the Zuiderziekenhuis (on the left bank of the river Maas), new buildings were erected in addition to, and as replacement for, old ones, and renovations of all kinds were carried out. These building activities, for that matter, did not aim at increasing the number of beds, but served to modernize the existing accommodations and to create space for more outpatient treatment.

Before 1965, central planning or formal consultations of any sort between the Boards of all these municipal and private hospitals in Rotterdam were lacking. In 1965, the Contact-Committee Private Hospitals Rotterdam was brought into being in order to promote their collective interests, especially in the face of the initiatives of the local government and its municipal hospitals. When the Hospital Facilities Act of May 1971 ('to promote suitable facilities for the sake of hospitals and other (public) health institutions') caused the distinction between municipal and private

hospital to lapse, the Contact-Committee was transformed into the Foundation Cooperating Hospitals Rotterdam, later named Foundation Cooperating Rijnmond Hospitals. Its concern now was mainly with the measures taken by the authorities to render the structure and functioning of public health more efficient. Reductions in the number of beds, and regional hospital plans, presented themselves as subjects for joint consultations.

In 1965, the Sophia Children's Hospital was still the largest institution with regard to the pediatric services. Second came the Zuiderziekenhuis, which indeed counted fewer beds in the pediatric department, but had a reputation for quality certainly equal to that of the Sophia Children's Hospital of those days. This department owed its post-war flourish to the pediatrician dr. Jonxis, mentioned above, who, upon leaving for Groningen (1951), was succeeded by dr. Jan Engelhardt (1914-1978). That the latter pediatrician was appointed lecturer by the Foundation for Higher Medical Education in preference to the medical director of the Sophia Children's Hospital, is an indication of the status quo in post-war pediatrics in Rotterdam. In the 1950s the

Table 1. The Rotterdam hospitals at the end of 1965, accounting for the total number of beds available and the numbers of beds on the internal, surgical, and obstetric-gynecologic departments. In the column 'children' the total number of children's beds in the respective hospital is given [IM=internal medicine, S=surgery, GO=gynecologic-obstetrics, C=children].

Ziekenhuizen	**IM**	**S**	**GO**	**other**	**total**	**C**
Ziekenhuis Dijkzigt	170	410	87	171	838	44
Bergwegziekenhuis	238	134	-	43	415	16
Zuiderziekenhuis	220	135	42	44	441	99
Kinderkliniek 'Margriet'	44	-	-	-	44	44
Sint Franciscus Gasthuis	212	136	84	85	517	86
Sint Clara Ziekenhuis	127	101	58	71	357	-
Ziekenhuis Eudokia	60	70	45	182	357	40
Ziekenhuis Bethesda	39	44	5	15	103	6
Ziekenhuis Ikazia	16	18	8	24	66	2
Sophia Kinderziekenhuis	130	65	-	-	195	195
Diaconessenhuis	70	92	47	89	298	30
Havenziekenhuis	48	57	-	35	140	-
Oogziekenhuis	-	-	-	103	103	6
Daniël den Hoed Kliniek	117	-	-	152	269	-
Rijkskweekschool Vroedvrouwen	12	-	70	-	82	12
Adriaanstichting	-	46	-	-	46	46
Other (categorical) institutions	-	-	-	38	38	-
Total	**1.503**	**1.308**	**446**	**1.052**	**4.309**	**626**

Zuiderziekenhuis gained nationwide fame as a center for the treatment of young polio patients in particular. In 1958, it obtained a pavilion for chronic artificial respiration patients, called De Ark, which had come into existence in part as a result of the efforts of Mr. L. van Stolk, chairman of the board of the Sophia Children's Hospital, and of the financial support of the Prinses Beatrix Poliofonds. To this clinic an annex was added two years later (De Ark II). The building complex of the Zuiderziekenhuis also housed the Children's Clinic 'Margriet', which dated from 1951 and was intended for nursing 63 convalescent children from the Zuiderziekenhuis back to health.

The Municipal Hospital Dijkzigt could not boast a department of pediatrics, nor had pediatric surgery yet developed into a separate specialty. When drawing up the plans for the new building of the Coolsingel Hospital in May 1947, the City Council had discussed at length whether pediatrics was to be part of the future hospital, or rather left to private initiative as represented by the Sophia Children's Hospital. The latter option had then been decided upon, with all its decisive consequences for the position of the Rotterdam children's hospital, both in the short and in the long run.

Among the denominational hospitals, the Sint Franciscus Gasthuis traditionally ran a relatively large department of pediatrics. In addition to an extensive outpatient department, pediatrician dr. H.A.C. Schaaf had 23 cubicles and 13 wards, a total of 86 beds, at his disposal in 1965, the year he was succeeded by dr. J.M. Smit. 'Competition' with the Sophia Children's Hospital, now a university hospital, caused the number of beds to be halved in the new building on Kleiweg (1975). A section for 12 teenager patients, however, was added in 1982, whilst the treatment of newborns and prematurely born children also increased in importance, especially since the integration of the clinic of the State Education Center for Obstetricians – the successor of the State Training School for Midwives – into the Sint Franciscus Gasthuis in 1990. Within the protestant segment, the Eudokia Hospital contributed forty and the Diaconessenhuis thirty beds to pediatric care.

Setting the course, organizational and administrative changes

When forming a department of pediatrics within the Medical Faculty Rotterdam, and a hospital department in which academic pediatrics could bloom, prof. Querido was faced with two major decisions: where to situate this pediatric department spatially, and whom to offer the responsibility for teaching and research in this medical specialty?

As to the first question, whether one should create a department of pediatrics within the rearrangement of the Municipal Hospital Dijkzigt or whether an organizational link with the Sophia Children's Hospital, without a spatial or geographical unification, should suffice, hardly needed discussion. Lack of space in Dijkzigt rendered revision of the 1947 decision to concentrate pediatrics in the Sophia Children's Hospital unfeasible. Besides, prof. Querido believed an organizationally

and architecturally unified Sophia Children's Hospital would benefit the Medical Faculty. Through its chairman Mr. Van Stolk, the Board of the Vereniging Sophia Kinderziekenhuis (Association Sophia Children's Hospital) also expressed a preference for affiliation with the Medical Faculty from the start. As early as May 1965, the Board of the Vereniging (though not unanimously and with express negative vote by dr. Reerink) decided to offer the Sophia Children's Hospital 'distinctly and unconditionally' to the Committee for Preparing the Medical Faculty Rotterdam. The Board members present were aware that this heralded the end of the autonomy of the Board regarding their children's hospital, but considered this no impediment to taking a new course.

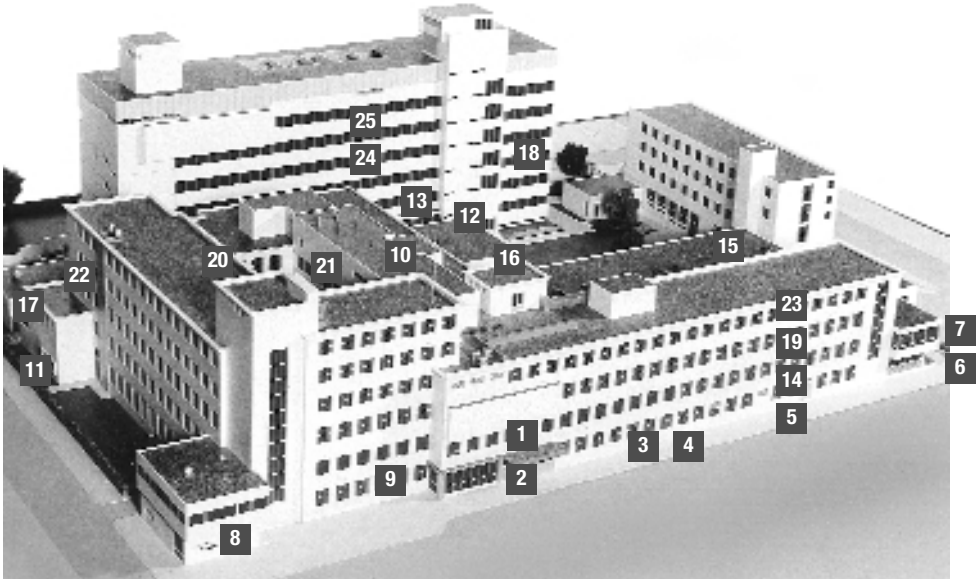
Regarding the second issue, to whom the responsibility for teaching and research in pediatrics should be offered, consensus was reached equally speedily. The Groningen pediatrician dr. H.K.A. Visser, who had already been mentioned within the board of the Sophia Children's Hospital as a candidate for the vacant post of medical director, also appeared the obvious candidate to prof. Querido. This was due both to his record as a scientific researcher (in prof. Querido's own field, i.e. endocrinology) and to his vision on the development of pediatrics, which he had set out, as requested, in a memorandum on 'the department of pediatrics in the new medical faculty in Rotterdam (September 1965)'. That dr. Visser was to become the new professor of pediatrics then was beyond doubt to all involved, even though the formal appointment did not follow until 5 January 1967 (effective 1 July 1967) and all kinds of legal-organizational barriers still had to be removed before the chapter on the history of the Sophia Children's Hospital as a private hospital could be closed.

After his intense but distant one-year involvement in the transformation of the Sophia Children's Hospital into a university hospital, dr. Visser addressed the Board in a memorandum in August. Once more he summarized his view on the development of pediatrics (especially in the light of the definitive decisions that now had to be taken), and also emphasized to what extent the Sophia Children's Hospital was lagging behind in these developments: 'At this moment it is fair to say that in the field of internal medicine in childhood, examination and treatment are possible only to a very small extent in the Sophia Children's Hospital. Children with congenital heart defects, congenital metabolic diseases, etc., can not be adequately diagnosed and treated in the Sophia Children's Hospital. These children therefore had to be referred elsewhere. … Modern treatment of the newborn is impossible. The laboratory is insufficiently equipped. The Sophia Children's Hospital is seriously behind and catching up will not be easy. … Specialized examination and treatment can not at present be offered in the Sophia Children's Hospital. Medical staff trained to this aim is wanting, nursing is quantitatively insufficient and the building is equipped equally inadequately.'

Juxtaposed to this disappointing state of affairs was the ideal of an integrated 'Children Medical Center', which even this early on dr. Visser considered to be far preferable to an arrangement in which the MFR would house the facilities for specialized examination and treatment within the Dijkzigt building complex, and

would use the Sophia Children's Hospital only as a location for treatment. In the center as he envisaged it, all children, regardless of their diseases, would be brought together under the same roof. Pediatrics, as the internal medicine in childhood, should practice the same subspecialties available for adults, and should have at its disposal the same facilities for specialized X-ray and laboratory investigation, as well as other supporting services such as a dispensary, an audio-visual department, and a library. Furthermore, a closer cooperation should be established both between the basic and the clinical disciplines, and between the clinical disciplines themselves. From such integration and constant interaction it was hoped that both would draw the strength to take new roads. Yet dr. Visser's aspirations reached even further: as he argued in his memorandum it would be possible 'to turn the Sophia Children's Hospital into a pediatric center in our country'. Such a pediatric center would also be of great advantage to the pediatric surgical discipline, which (under the leadership of dr. Vervat) occupied 'a unique position' within the Sophia Children's Hospital. This lucid vision of the future fully conformed to the aspirations which prof. Querido cherished with regard to the construction of the Medical Faculty. Before long, the board of the Sophia Children's Hospital and the Medical Faculty Rotterdam had given dr. Visser a free rein to transform the Sophia Children's Hospital into the medical children's center that he had in mind.

Turning the Sophia Children's Hospital into a university hospital was a complicated process both in terms of space and in terms of organization. It was launched in 1966 with a careful consideration of the devolution of administrative responsibilities, and concluded in October 1975 with the transfer of the buildings of the Sophia Children's Hospital to the State. Thus the Vereniging Sophia Kinderziekenhuis entered a new period of its existence (see below), as from now on it would be occupied solely with managing and spending of the capital gained primarily from the sales proceeds of the buildings. For the purpose of arranging the transfer of movable and immovable properties of the private Vereniging Sophia Kinderziekenhuis to the State or the intended University Hospital Rotterdam respectively, a committee was set up in October 1966. It was chaired by Mr. Thissen, and its members were representatives of the Vereniging Sophia Kinderziekenhuis, the board of the MFR (or of Dijkzigt, as the case may be) and of the Ministry, and also included the future professor dr. Visser. Within three months the committee had produced a draft agreement, which was then approved with similar vigor, so that the definitive agreement could be ratified as early as 6 June 1967. The principle underlying this agreement was that 'the parties are of the opinion that one should strive for integration of the children's hospital as run by the Vereniging into the university hospital at the MFR' and that, therefore, it was desirable 'that the children's hospital of the Vereniging even at present should be put at the disposal of the scientific medical education and research at the MFR, and that, to this aim as well as for the treatment of patients, the children's hospital should be used as a children's hospital, in as far as this is possible within the framework of the Medical Faculty Rotterdam'. Just as in



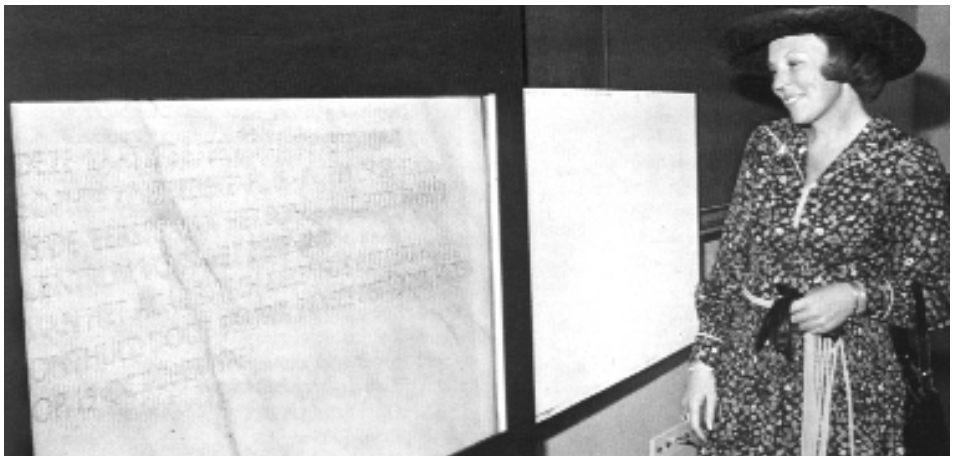
The buildings of the Sophia Children's Hospital in 1975, above seen from Gordelweg and below as a scale-model. Key: (1) boardrooms, originally also medical library, (2) main entrance, (3) clinical-chemical laboratories, (4) radiology, (5) funeral parlor, (6) entrance outpatient department, (7) outpatient department and waiting room, (8) visitors'crèche, (9) and (10) laboratories, (11) quarantine department, (12) day room child psychiatry, (13) learners' pool, (14) infants, (15) outpatient department, (16) play room, (17) toddlers and children, (18) child psychiatry, (19) neonatal unit, (20) urology, (21) and (22) surgery, (23) various specialties, (24) EEG-EMG, (25) department II-fourth floor.

the case of Dijkzigt, the Sophia Children's Hospital first had to be brought under the flag of the MFR, in anticipation of the moment when the University Hospital Rotterdam would be granted corporate personality. No account is required here of the further arrangements needed to turn the Sophia Children's Hospital into a university hospital: of the transfer of usage and ownership, of the taking over of staff, and the financing of the necessary adaptations and renewals. Suffice it to say that a working group was set up, again chaired by Mr. Thissen, which published a report in May 1969 (referred to unofficially as the 'red book') in which such matters were settled, and a special solution was proposed for the funding of the 32 million guilders at which the group had estimated the value of the Sophia Children's Hospital premises (8 million) and the necessary alterations (24 million). For, contrary to the arrangement concerning the transfer of Dijkzigt, no financial support from the State appeared to be forthcoming for the transfer of the Sophia Children's Hospital. Mr. Thissen and dr. Visser, who addressed prof. Querido over this matter, left empty-handed. All money available had been spent on the creation of the MFR and the refurbishment of Dijkzigt, and the Sophia Children's Hospital was left to its own devices.

This predicament was resolved, in line with the proposal in 'the red book', by resorting to the 'hire-purchase system', by virtue of which the Medical Faculty Rotterdam did not need to cover the required 32 million guilders from their own capital, but could limit itself to a yearly 'lease', to be paid from the running account. Because of the objections of the Ministry of Finance in particular to a takeover funded by the usage of the hospital, and due to anxiety about creating an unwelcome precedent for other building projects, the Minister of Education, Arts and Sciences only reluctantly agreed with this hire-purchase in mid-1970.

Formally the transfer to the State was to coincide with the date on which both the Sophia's Children's Hospital and the Municipal Hospital Dijkzigt would be given the official status of university hospital. However, as the building of the so-called SKZ'71 (see below) had not been completed yet, it was decided that the transfer of the whole would be postponed until the Vereniging had finalized this new building and officially taken it in use. This historic event took place on 15 October 1975, graced by the presence of HRH Princess Beatrix. On this occasion she unveiled a memorial stone which according to its inscription was both the 'last stone' of the new building (SKZ'71) and the 'first stone' of 'the center for the sick child of the University Hospital Rotterdam'.

At the realization of the University Hospital Rotterdam (AZR) in 1971, the Vereniging Sophia Children's Hospital formally transferred the management and usage of the children's hospital to the newly instituted board of the AZR; as mentioned before the transfer of the buildings followed four years later. In the previous years important changes had taken place in the board and the medical staff of the Sophia Children's Hospital, following both the entanglements around the position of the medical director dr. Reerink and the change of status from private to university



Unveiling of the marble plaque by Princess Beatrix on the occasion of the transfer of the buildings of the Sophia Children's Hospital to the State on 15 October 1975. The inscription runs: 'This "last stone" of the Vereniging Sophia Kinderziekenhuis is also the "first" one of the Sophia Children's Hospital, center for the sick child of the University Hospital Rotterdam'.

hospital. Some staff members, drawing the obvious conclusion from the new situation of 1965-1966, left the Sophia Children's Hospital of their own volition; others, by contrast, had to be coerced by the executive. The end of April 1966 saw Mr. and Mrs. Reerink leave. In anticipation of the arrival of the medical director dr. Visser, pediatrician J.J. Pieterse temporarily filled in this position. In the same year, the departure of pediatrician dr. Tieline Janssen was arranged, while cardiologist Mrs. Kleyn-Van Walbeek moved her practice elsewhere. In the Nursing department, the departure of assistant director Mrs. R.M. van den Berg in 1966 provided the opportunity for a replacement who would enable this department, too, to attain the new status of university hospital. After the appointment of dr. Visser as professor-director, 1967 also saw the appointment of sister J.A. van der Stadt as nursing director.

Already two years earlier the executive had decided to increase the directorate by an economic director, to which position was appointed the then administrator of the Sophia Children's Hospital, Mr. C. de Jong. Under his leadership the administrative office developed into a large and complex Finance and Administration Department, with separate units for purchase, personnel administration, financial-economic affairs, and medical registration. The mechanization and especially the digitization that started in 1970 with the purchase of the first computer were to change drastically the nature of the activities in this department. Milestones were the introduction of the Ziekenhuis Informatie Systeem (Hospital Information System) in 1977 and the automation of patient registration in 1982. The size of the goods flow in the hospital, and the sums of money involved in the running of a children's hospital at academic level, were of a quite different magnitude than what had been customary in the former private Sophia Children's Hospital. In addition,

the more intensive involvement of the authorities in health care in general and in hospitals in particular led to numerous budgeting and economy measures. Neither change made the running of the AZR any easier. The exact figures, for that matter, are hard to retrieve within the complex entity of the AZR, with which the Sophia Children's Hospital was becoming increasingly tied up in terms of organization. In fact, as from January 1989, the financial-economic departments of Dijkzigt and Sophia operated in full integration.

At the level of the directorate, too, both constituent parts of the AZR became increasingly interwoven over time. After the status of university hospital had been obtained (1971), prof. D.C. den Haan held the position of head-director, whilst prof. Visser handed over the medical direction of the Sophia Children's Hospital, as from 1 September 1972, to dr. Vervat. For the same reason the board of directors within the Sophia Children's Hospital was enlarged, as from January 1975, with a general director, Mr. H.P. Ruinen, who was 'entrusted with the chairmanship of the local directorate and as such with the coordination, the smooth running of, and the integration within, the AZR'. In 1980, the AZR adopted a new top structure with one head-directorate (prof. D.C. den Haan) and two local directorates. Next to the economic director Mr. J.A.M. van Kleef, who in 1979 had succeeded Mr. De Jong, and the nursing director sister C.P. Breugem, who in the same year had filled the unexpected vacancy left by sister Van der Stadt, the lung specialist dr. H. van Giffen was now appointed medical director of the Sophia Children's Hospital as well as chairman of the local directorate. In the course of this reorganization Mr. Ruinen obtained a new function within the AZR. A second major change took place in 1990 when the AZR was confronted with the introduction of a general revision of the top structure of (university) hospitals. From then onwards, the executive functioned as a Supervisory Board, and the directorate as a Board of Directors, which consisted of a chairman (Mr. J. Barendregt), a member for patient care affairs (dr. P.A.E. Sillevis Smitt), and a member for economic affairs (Mr. C. Hoogenboom).

The field of action of the Vereniging SKZ and its foundations since 1971

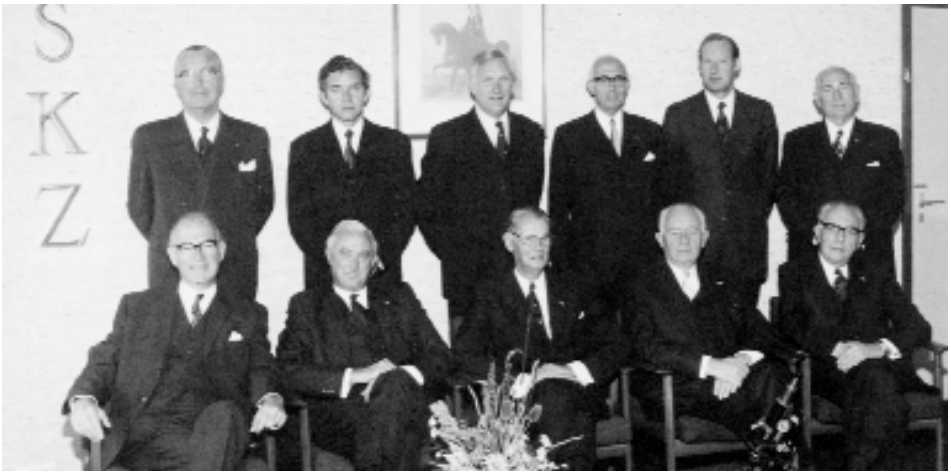
With the transfer of the Sophia Children's Hospital to the University Hospital Rotterdam in 1971 the position of the Vereniging Sophia Kinderziekenhuis underwent a radical change. It was no longer responsible for managing the children's hospital, nor did it need to support its usage financially. From now on, the Vereniging was to utilize its capital in a different way when showing its care for the sick child. Thanks to the eight million guilders yielded by the sale of the children's hospital, the capital of the Vereniging had increased to about twelve million guilders by the middle of the 1970s. Given this situation, fund raising activities somewhat faded into the background in the 1970s and 1980s.

The new position and terms of reference of the Vereniging in the middle of the 1970s coincided with a change in the Board. Of its members, Sir P.R. Feith and Mr.

The three members of the board who initiated and realized the transformation of the Sophia Children's Hospital into a university hospital. Left: medical director prof. H.K.A. Visser; center nurse J.A. van der Stadt, nursing director 1967-1978; and right C. de Jong, economic director 1965-1979.

H.H. Nauta, both of whom had been intensively involved in the transformation of the Sophia Children's Hospital during the sixties, as well as Mr. H.J. Valk (the go-between with the municipality of Rotterdam), Mr. J.M.A. Sondag (the link to the Ministry of Education, Arts and Sciences), Mr. H.M.A. van Berkel, Mr. F. Boogaerdt 't Hooft and Mr. Ph.A.J. Mees, all left. Only Mr. J.J.M. van Benthem and Mr. J.W. Roskamp remained, the latter in the function of treasurer. The most important change within the Board concerned the departure of the chairman Mr. Van Stolk, who now became Honorary Chairman, and the appointment of Mr. Thissen as his successor in 1976. Mr. Thissen had been involved in the events around the establishment of the medical faculty from the start: both as secretary of the MFR (side by side with his position as secretary to the Governors of the Netherlands School of Economics) and as secretary of the executive of Dijkzigt Hospital, of which he became advising member in 1971. This latest appointment strengthened his position considerably. His personal retrospective (see framed section) illuminates the crucial circumstances and people that played a part in the establishment of the MFR and the transformation of the Sophia Children's Hospital.

Due to the new set-up and terms of reference, the Vereniging began to feel the need for an administrator for its secretariat and financial affairs. This function was taken up by Mr. W.J.A. Tjeenk Willink, whose services to the Vereniging were recognized by his appointment in 1981 as secretary-member of the Board and also of the Boards of various foundations, and later, when he resigned in 1989, his appointment as honorary member of the Vereniging. His successor dr. A.R. Helbing remained the competent and dedicated secretary of the Board for the decade to come. In 1989, Mrs. M.J.A Knijnenburg-Duijvestijn was appointed to carry out the various pro-



The board of the Association Sophia Children's Hospital on 15 October 1975. From left to right, seated, O.A. Thissen, H.H. Nauta, L. van Stolk, P.R. Feith, and H.J. Valk; and standing H.M.A. van Berkel, J.J.M. van Benthem, F. Boogaerdt 't Hooft, Ph.A.J. Mees, J.W. Roskamp and J.M.A. Sondag.

ceedings in the secreteriat. Regarding the permutations of the Board during the 1980s and 1990s (see Appendix), only the occupation of the chairmanship needs to be mentioned here. When Mr. Thissen stepped down as chairman in 1993, he was appointed honorary chairman and received the Wolfert van Borselen-medal from

Mr. O.A. Thissen: Looking back on the realization of the Medical Faculty Rotterdam and the Sophia Children's Hospital

The question of how and why in the late 1960s and early 1970s the new State Medical Faculty Rotterdam (MFR) could be got off the ground so quickly and how it was possible that this new faculty, the Municipal Hospital Dijkzigt and the private Sophia Children's Hospital were acquired and merged as university establishments so soon, can be answered with: 'on account of several favorable circumstances and the zest of those who were the leading figures at the time'.

The most important of these 'circumstances' was the urgency of creating a seventh medical faculty expressed by the government, combined with the fact that ample means were available in the 1960s (this situation was to change soon). The main factor, however, rather than the availability of money, was the recognized good cause. That certainly sped things up! Secondly, each medical faculty, including the MFR, needed to dispose of hospital facilities for clinical scientific teaching and for advanced patient care. In Rotterdam, the new, large Municipal Hospital Dijkzigt, which already provided clinical higher education taught by professors of the universities of Leyden and Utrecht, was ready for use. Time-consuming new building moreover would have resulted in a surplus of hospital beds in the Rotterdam region. Thirdly, the relocation of the Ahoy exhibition center, originally right next to Dijkzigt, created room for the building of the new faculty. An ideally concentrated location geographically, the more so as the new Sophia Children's Hospital could subsequently be constructed there as well. A fourth rea-

son to join forces found its origin in the fact (of which hardly anyone is aware now) that the University Hospitals Act dates back to as late as 1971. Thus in a legal sense Dijkzigt in 1966 could not become an independent state university hospital. It was possible though for the state institution MFR, which had its own corporate personality (a position similar to that of the universities), to buy the Municipal Hospital Dijkzigt. This indeed happened, and hence from 1966 to 1971 the Executive Board of the MFR also functioned as the Board of the Dijkzigt Hospital. So, another strong connection. A fifth, and very important, circumstance was the agreement made in Rotterdam long ago that the municipal hospitals, including Dijkzigt, were not to create their own (large) children's departments. Child medicine was concentrated in the Sophia Children's Hospital, a private hospital governed by the Vereniging Sophia Kinderziekenhuis. Consequently, this hospital, too, had to be transferred to the state. In 1967, the Board of this Vereniging contributed to this with pleasure. Again the only possible buyer was the MFR. Thus, another union was effected.

As someone who became the Secretary of the Committee for Preparing the MFR as early as 1965, I can testify from my own observations to this previously mentioned 'zest'. It was displayed from the top downwards, by the Ministry of Education, Arts and Sciences, where the energetic Minister Mr. I.A. Diepenhorst was firmly determined to establish a seventh medical faculty, to be founded in Rotterdam. It is not without significance that at this time dr. A.J. Piekaar was its director-general of scientific education and research. All who knew him spoke and still speak of this top-ranking civil servant with respect and often affection. Not one meeting of the Committee for Preparing the MFR went by without dr. Piekaar's assistance in word and deed. At this time and later he was of great importance to scientific education in Rotterdam. The Committee for Preparing the MFR was competently chaired by the just retired mayor of Rotterdam, Mr. G.E. van Walsum, a charismatic figure who opened many doors. His vigorous successor, mayor W. Thomassen, also deserves respectful mention. Rotterdam looked forward to evolving into a university town, which was feasible in combination with the three arts faculties of the Netherlands School of Economics – three arts faculties by themselves legally constituted an insufficient basis. Furthermore, prof. A. Querido should be honored especially, as the man who provided the concept for the new medical faculty, and was the driving force enabling the faculty to be opened in September 1966, that is to say within sixteen months after the decision of the Council of Ministers to found the faculty. He can rightly be called the founding father of the MFR, for which Rotterdam ought ever to remember the brilliant prof. Querido. Mr. B.J. de Boer must be mentioned as well, who as director of the MFR took the responsibility for the building activities upon himself. Mr. De Boer, an organizational heavyweight, has achieved much for Rotterdam as university town. With regard to the Sophia Children's Hospital – the subject of this book – Mr. L. van Stolk must be mentioned, the dedicated chairman of the Vereniging Sophia Kinderziekenhuis who contributed greatly to the transfer of the private children's hospital to the State. Last but certainly not least there was prof. H.K.A. Visser, who gave meaning and direction to the transformation of the existing Sophia Children's Hospital into a university medical children's center, and who as new medical director has been similarly beneficial to the Sophia Children's Hospital. He too is owed much gratitude. Without wishing to short-change others (various professors and administrative staff), these people were the driving forces, who with enormous dedication and within a very short period of time indeed, enabled the establishment of a new medical faculty, acquired Dijkzigt and the Sophia Children's Hospital, realized the merging of both institutions and turned them into university hospitals.

A photo made during a meeting of ex-, current and new members of the board and the three heads of department, with their husbands and wives, in December 1981. From left to right, seated in the front row: H.M.A. van Berkel, Sir P.R. Feith, L. van Stolk, Mrs. Van Stolk, Ph.A.J. Mees, F. Boogaerdt 't Hooft, H.J. Valk; standing in the front row: Semijns de Vries van Doesburgh, Mrs. prof. J.A.R. Sanders-Woudstra, J.J.M. van Benthem, Mrs. D.J.C. Semeijns de Vries van Doesburgh-Wesseling, Mrs. Van Benthem, Mrs. Thissen, Mrs. Visser, Mrs. Sondag, Mrs. Boogaerdt 't Hooft, Mrs. Delmeijer, Mrs. Roskamp; standing in the second row: prof. J.C. Molenaar, O.A. Thissen, R.P. Pfeiffer, Mrs. Pfeiffer, J.M.A. Sondag, prof. H.K.A. Visser, Mrs. Tjeenk Willink, W.J.A. Tjeenk Willink, Mrs. Molenaar, Mrs. Nouwen, P.A. Nouwen and J.W. Roskamp.

the municipality of Rotterdam. His successor in the function was dr. A.H.G. Rinnooy Kan.

In order to improve the shape of the finances for scientific research and the social activities, and also for fear (mainly of chairman Van Stolk) of pruning of the capital of the Vereniging by the State, it was decided in 1972 to create a fund in which to put the capital of the Vereniging as well as new income. The result was the establishment of the L. van Stolk Fund on 5 November 1973, named after the chairman of the Sophia Children's Hospital. According to its constitution, the Fund aimed at 'promoting scientific research for the benefit of children's medicine in general and the care of the sick child in particular', to be achieved by distributing the proceeds of the capital as well as other money of the Vereniging Sophia Kinderziekenhuis. Under the supervision of three successive treasurers (Mr. Ph.A.J. Mees, Mr. J.W. Roskamp and Mr. P. Eemsing) the L. van Stolk Fund steadily waxed (see Figure 5). The realization of its aim was entrusted from the start to two newly founded independent foundations, namely the Sophia Stichting Wetenschappelijk Onderzoek (SSWO) (Sophia Foundation for Scientific Research) and the Sophia Stichting voor het Zieke Kind (SSHZK) (Sophia Foundation for the Sick Child), to which funds were granted in the proportion 85%:15 %.

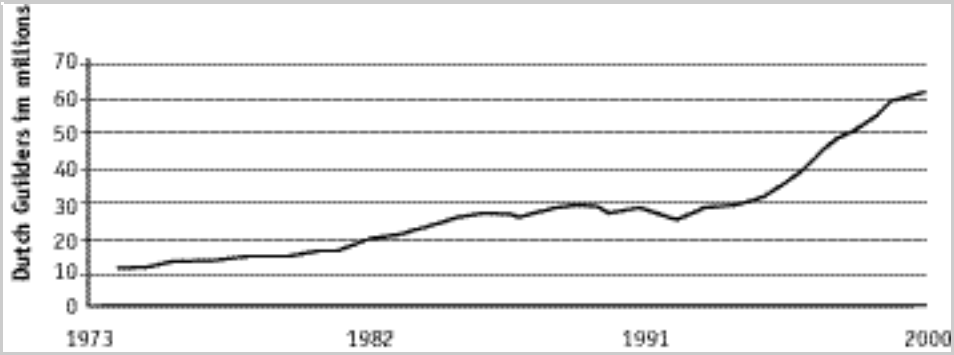
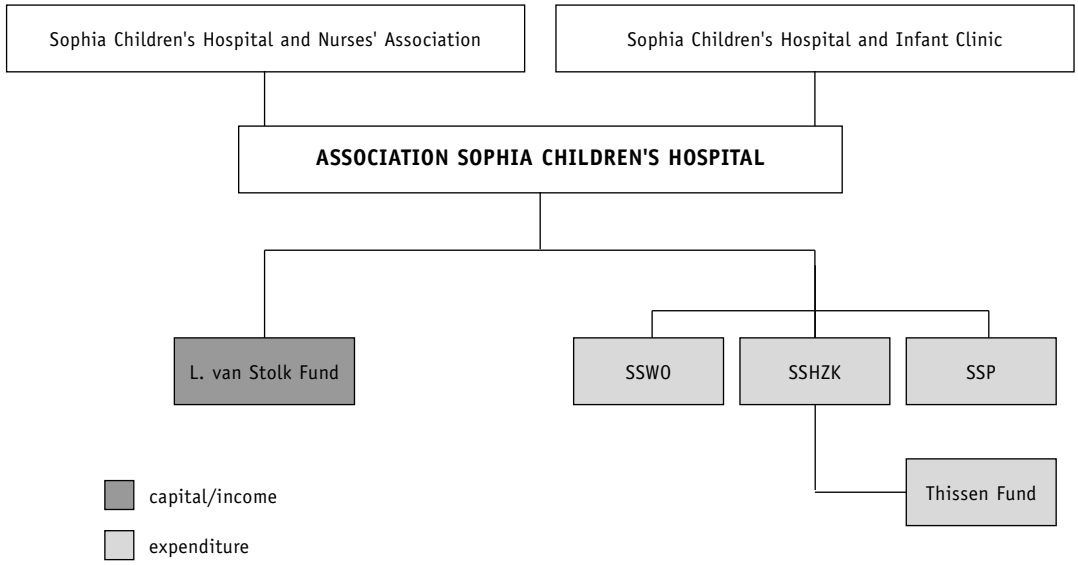


Figure 5. Development of the capital of the L. van Stolk Fund, 1973-2000.

The institution of the L. van Stolk Fund was followed by the revision of the by-laws of both the historical foundations on which the Sophia Children's Hospital was based. The oldest, the Association Sophia Children's Hospital and Nurses' Association dating from 1865, henceforth considered 'the support of the Rotterdam-based L. van Stolk Fund' as its major objective. The aim of the Association Sophia Children's Hospital and Infant Clinic from 1934 became: 'to promote the interests of the sick child, … in particular by supporting the Rotterdam-based L. van Stolk Fund'. The identical composition of the Boards of the Vereniging Sophia Kinderziekenhuis and the other foundations ensured a close cooperation between them.

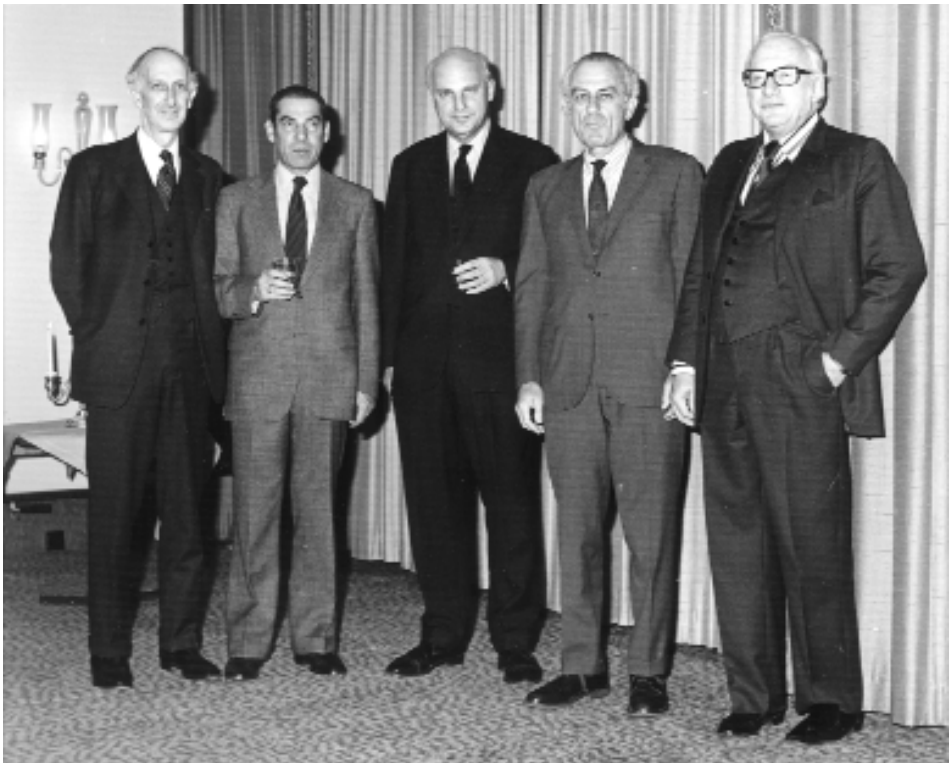
The newly obtained status of the Sophia Children's Hospital as university hospital naturally announced a new era for the Sophia Foundation for Scientific Research (SSWO), the successor of the financially weak association of the same name founded in 1963. In the 1972 by-laws the terms of reference of the SSWO were described as 'to promote and conduct medical scientific research in the fields of the medicine, psychiatry and surgery in childhood as is practiced by the departments active in the Sophia Children's Hospital, and in addition all that is associated with the foregoing or may be conducive to it, all this in the widest sense'. Subsidizing research projects was and remained the main activity of the Foundation: in the period 1973-2000 more than 350 projects were granted financial support. Applications for funding are assessed by an independent Scientific Advisory Council, in which each of the three disciplines (pediatrics, pediatric surgery, and child and youth psychiatry) is represented by a foreign scientist of international standing (since 1984 each holds the post for a period of six years), and which is augmented by two leading Dutch researchers, of whom one is a clinician and one a pre-clinician. Moreover, the SSWO organizes lectures in honor of three pioneers of the university era of the



The organizational structure of the Vereniging Sophia Kinderziekenhuis and its supporting foundations

Sophia Children's Hospital: the dr. David Vervat lectures (since 1978), the prof. H.A.K. Visser lectures (since 1997) and the prof. J. Sanders-Woudstra lectures (since 1998). These take place every three years on rotating schedule. Besides the research projects 'Short Term Minor Projects' and 'Fellowships' are funded, and the Foundation finances special chairs for the pediatric (sub-)specialties, as will be described in greater detail in our account of the medical developments within the Sophia Children's Hospital. Since 1996, the SSWO cooperates with the W.H. Kröger Foundation in Rotterdam, which in principle will provide funds annually (until 2008) for projects selected by themselves and approved by the SSWO Scientific Advisory Council.

The Sophia Foundation for the Sick Child (SSHZK), founded 5 November 1972, aims at 'providing care to sick children, in those cases in which the board considers this necessary or desirable, in the shape of assistance in the nursing and support to nursing institutions or institutions for the revalidation of children, and also in the field of prevention, and in addition all that is associated with the foregoing or may be conducive to it, all this in the widest sense'. Consecutively the board members Mrs. D.J.C. Semeyns de Vries van Doesburgh-Wesseling, Rev. W. Hudig-Semeyns de Vries van Doesburgh, and Mr. F.Y.N. de Bakker-Kerstholt in particular dedicated themselves to this Foundation. The subsidized projects largely fall outside the Sophia Children's Hospital, for example the project 'children's paradise' for handicapped children between 0 and 12 years of age in the Alexander district in Rotterdam.



The first scientific advisory board council to the Sophia Foundation for Medical Research in 1973. From left to right: prof. O. Wolf (pediatrician in Londen), prof. D. de Wied (pharmacologist in Utrecht), prof. J.N. Homan van der Heide (cardiac surgeon in Groningen), prof. A. Solnit (child psychiatrist in New Haven, USA), prof. P. Rickham (pediatric surgeon in Zürich).

In 1996, the SSHZK obtained a source of income of its own due to the establishment of the Mr. O.A. Thissen Fund, which according to the official line is intended 'to enable financially weak parents to attend to their seriously ill child as best they can for the duration of the period of treatment at the Sophia Children's Hospital'. Refundable may be 'telephone-, travel-, and other extra expenses that are needed to ensure an optimum contact between the sick child and its close relatives'. The applications for assistance are submitted through the medical social workers in the Sophia Children's Hospital.

Over the years there appeared to be a need for a separate foundation, in addition to the SSWO and the SSHZK, whose objective it would be 'to support the care provided to its patients by the Rotterdam-based Association Sophia Children's Hospital and Infant Clinic'. To this aim, the Sophia Stichting Patiëntenzorg (SSP) (Sophia Foundation for Patient Care) was inaugurated on 7 December 1992. Its activities, however, did not commence until 1994, when it received its first funds from the Stichting Vrienden van het Sophia (Foundation Friends of the Sophia) (see below).

SSP-supported projects are, for example, the furnishing of an adolescents room in the Sophia Children's Hospital, the purchase of game computers, and the decoration of the corridors of the outpatient departments and of the blood drawing station.

In addition to the structural expenditure mentioned above, the Vereniging Sophia Kinderziekenhuis also subsidizes ad hoc projects. In 1993, for example, over five million guilders were made available to ensure a sufficiently large parking garage under the new children's hospital, a goal unlikely to enthuse potential fundraisers. Funds were also provided to deck out the conference room in the children's hospital (the Mr. O.A. Thissen room), to organize symposia, to install a 'visio test unit' for the physiology department, to purchase medical equipment, and, last but not least, to enable publication of this memorial book: altogether a contribution of around one and a half million guilders.

Cumulatively the Vereniging donated the following amounts in the period 1973-2000: 34 million guilders for the SSWO, five million guilders for the SSHZK and the Mr. O.A. Thissen Fund, 3.5 million guilders for the SSP, 5 million guilders for the building of the parking garage, and for various incidental expenses 1.5 million guilders. If the overheads be taken into account, the Vereniging SKZ spent a total of approximately fifty million guilders over the period 1973-2000.

Anticipating the developments in the years following the completion of the new building, this list of foundations connected with the Sophia Children's Hospital concluded with the Foundation Friends of the Sophia, called in short the Stichting Vrienden. Initiated on 8 July 1994, its aim is to raise funds for the Sophia Foundation for Scientific Research (SSWO), the Sophia Foundation for the Sick Child (SSHZK) together with the Mr. O.A. Thissen Fund, and the Sophia Foundation for Patient Care (SSP). In addition, it financially supports the subsequently founded Sophia Stichting Logeerhuis Ouders (SSLO) (Sophia Foundation Parents' Guesthouse) and the Stichting Sophia TV (SSTV) (Foundation Sophia TV), neither of which fall under the umbrella of the Vereniging Sophia Kinderziekenhuis. The Board of the Stichting Vrienden comprises the same persons as the Board of the Vereniging Sophia Kinderziekenhuis, and is assisted by a committee of recommendation (see Appendix). Mrs. M. Gommers and Mr. E.J. Broedelet are responsible for its daily activities. Since 1994 all fundraising activities in support of the Sophia Children's Hospital are ran via the Stichting Vrienden. Thanks to the undertakings of the Stichting Vrienden, the yearly income of the Vereniging Sophia Kinderziekenhuis has been increased considerably, from 670.000 guilders in 1995 to some two million guilders in 2000. If it is the case that donations are destined for a certain aim, they are spent directly towards the aim in question. If not, money is allocated to the various Sophia foundations according to the circumstances; the greater part goes to the SSWO.

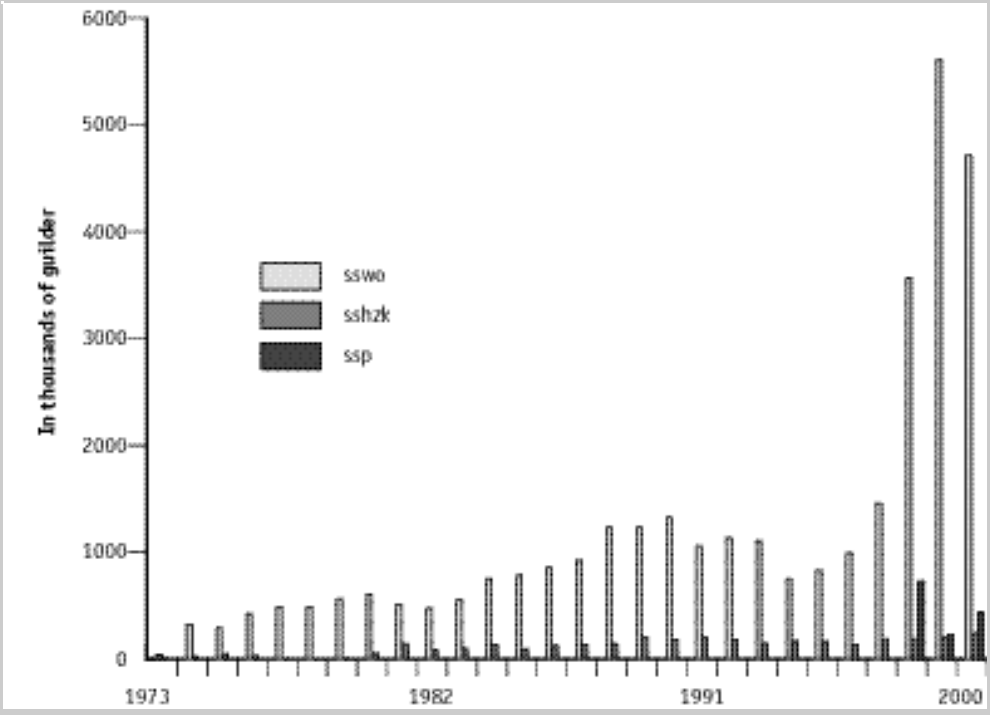


Figure 6. Monies granted to the SSWO, SSHZK and SSP between 1973-2000.

Rebuilding, extensions and new building

The transformation of the Sophia Children's Hospital into a university hospital necessitated drastic architectural adaptations and renovations. Prof. Visser presented the board with a lengthy list of items he wanted to obtain, including, among other things, the furnishing of staff rooms, a library, teaching facilities, laboratories, nursing units for newborns and older infants, a cafetaria, a room for the administration, and the extension of the pediatric surgical department, facilities for functional analysis and extension of the outpatient departments. The various departments had to be converted into units containing patient wards, offices, a dietary kitchen, a consulting room and an isolation room. Among the projects which were initiated already at the end of the 1960s were the alteration of the main entrance on Gordelweg, the building of a new board room, the furnishing of a new clinical-chemical laboratory on the ground floor and a staff restaurant on the first floor, as well as the renovation and refurbishment of the L. van Stolk pavilion as staff building with teaching and research facilities, the extension and renovation of the outpatient departments, and the alterations from the third floor up, where space

'The Pyramid', the staff residence building of the Sophia Children's Hospital in Schiebroek (1972).

was created for the extension of the laboratory and for special nursing rooms. One look at this list – and it could be extended – suffices to realize what tremendous changes the Sophia Children's Hospital underwent in the years around 1970, and how enormous an effort was required of all sections of the hospital, especially given the fact that patient care had to continue at all times during the building activities.

The first new building project (1968) concerned an accommodation on Peppelweg in the Schiebroek district for the nurses who used to live on the top floors of the hospital. This staff apartment building, which on account of its remarkable appearance was named De pyramide ('The pyramid') was occupied in 1972. One year previously, work had commenced on a high-rise building on the grounds of the Sophia Children's Hospital, which was to accommodate the new department of child psychiatry. This building, popularly called SKZ'71, or alternatively SKZ-II, was officially put into use on 15 October 1975. A third building project catered for the extension of the outpatient departments, by constructing an extra floor atop the existing outpatient department. This accommodation, in what was popularly called the 'upper poli', opened on 14 March 1977, mainly benefited leukemia-oncology (treatment unit for bone marrow punctures, lumbar punctures and drips), neurology (facility for transillumination), dermatology and endoscopic examination.

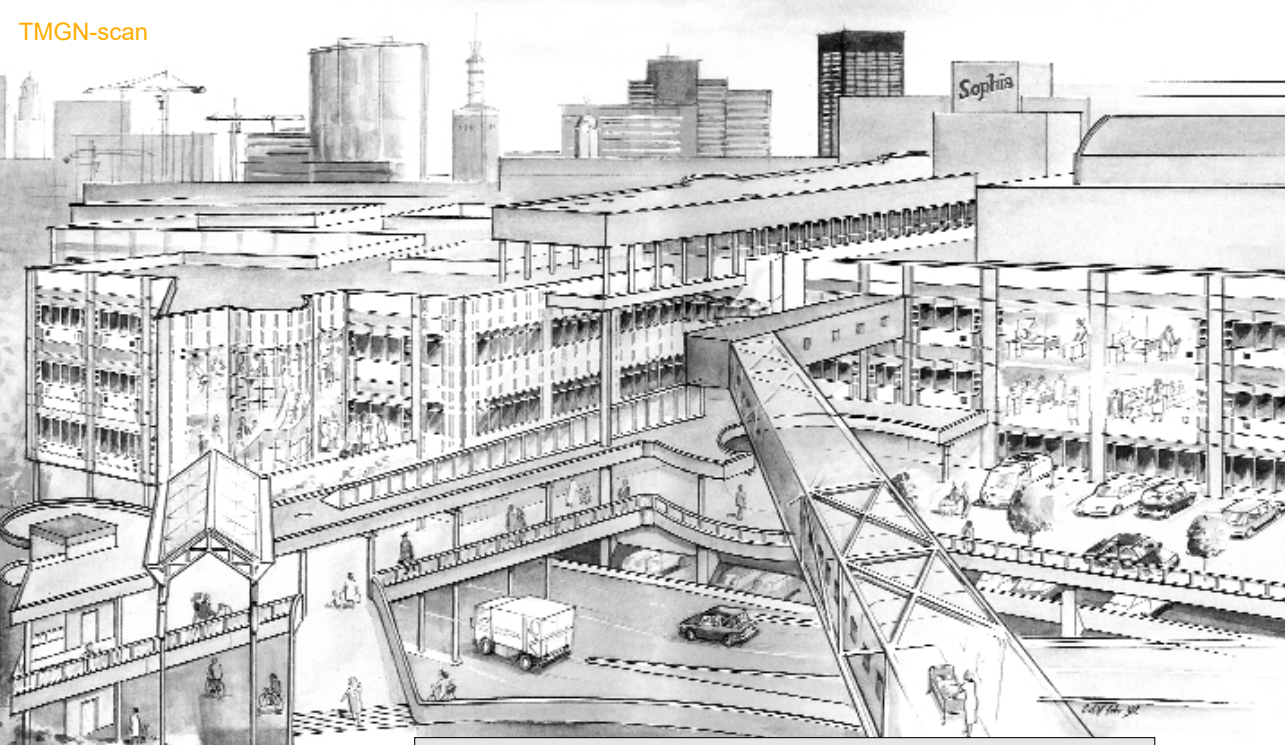
The occupation of the SKZ'71 building notwithstanding, the department of child psychiatry was facing housing problems. For the child psychiatric outpatient department one still had to resort to the villa at Walenburgerweg, where the department had been set up in 1970. Besides, the use of space in the new building was increasingly pressurized due to the Sophia Children's Hospital's intention to employ it as an extension of the department of pediatric oncology. When in 1980 an investi-

gation into the possibilities of accommodation in a new pavilion, to be built near the Van Dam-Bethesda hospital, had come to nothing, support from the Queen Wilhelmina Fund enabled the purchase of the premises Vredestein on Straatweg in the Hillegersberg district early 1981. Vredestein had formerly functioned as a home for problem girls, and far-reaching alterations were necessary to render it suitable for housing the clinic for child psychiatry. On 22 March 1982 the building embarked on its second career.

Meanwhile the potential for expansion on the grounds at Gordelweg were quite exhausted. At the end of the 1970s replacement building was the only real option. Initially the AZR-EUR building department, headed by Mr. C.P. Verhage, explored the possibility of building in the vicinity of Dijkzigt, for instance at the site of the underground station or as a new wing to the AZR. For a long time the feasibility of converting the buildings at Westersingel, which would become available as a result of the removal of the Van Dam-Bethesda Hospital to the Ruwaard van Putten Hospital in Spijkenisse, into a children's hospital. The site in question bordered the Hoboken site at the rear. After lengthy debate it was decided to stick with this geographical concentration, but nevertheless erect a complete new building rather than redesign a hospital complex of almost a century standing.

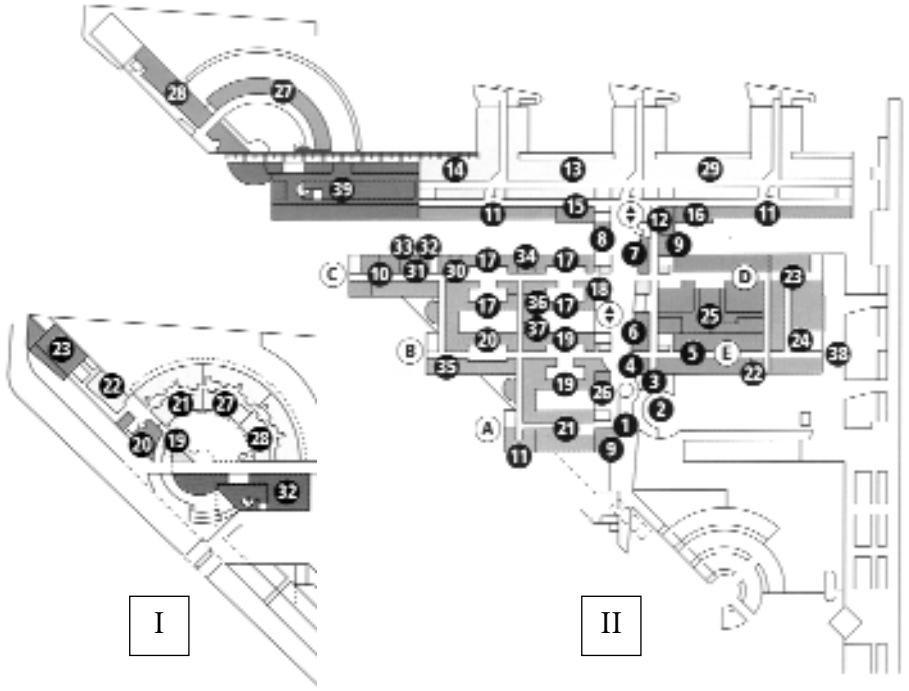
A large number of obstacles of administrative and financial nature had to be removed before the first new building could be carried out according to plan. The plan itself had been finalized as early as May 1981, numerous adaptations – such as the inclusion of the 'Blood Bank' on the building site – notwithstanding. The official inception of the new building, however, took place rather unexpectedly during the dinner party celebrating the 125-year anniversary of the Sophia Children's Hospital in the Rotterdam town hall, in December 1988. It was then that the Minister of Education and Science, Mr. W. Deetman, announced that 145 million gulden of the building cost (estimated at 155 million; the eventual cost amounted to 197 million) had been made available. The remaining ten million were to be acquired through fundraising. On 26 April 1990, the first pile was driven by the Minister of Welfare, Public Health and Culture, Mr. H. Simons.

Responsible for the approved design was the firm of architects OD205, and architect Mr. A. Hagoort in particular (who had already put the new buildings of the Royal Library in The Hague and the Polytechnics in Twente and Eindhoven to his name) and of his colleague Mr. H. van der Brugghen. In 1990, the architect commented in *Monitor*, the house magazine of the AZR, on the building plan, that consisted of four sections. 'First the linear part of the clinic, next the 'laddered' building of the outpatient department and then the rectangle of the treatment block. The fourth component is the building for child psychiatry. This is situated somewhat outside the hospital, as desired. The clinic for child psychiatry thus forms a connective between the inside and outside world. One gate opens onto the city, the other is connected to the Sophia Children's Hospital.' Within the clinic building the kitchens and physiotherapy were planned on the ground floor, the first and second floors housed the medium care while intensive care took place on the third floor, where all



Facts and figures about the new building of the Sophia Children's Hospital: the complex measures 42,000 m2, of which 11,800 m2 for primary use (sick wards, treatment rooms etc.) and 14,600 m2 transport space. The building contains 35 examination units, 10 operating rooms, 7 radiology rooms, 3 cystoscopy rooms, and 2 times 4 delivery and observation rooms. The Sophia Children's Hospital houses 295 beds, distributed over medium care (pediatrics 78, pediatric surgery 78), intensive care (neonatology 25, pediatrics 13, pediatric surgery 20), day treatment (12), child and adolescent psychiatry (day treatment 6 and clinic 21) and obstetrics (42). Average costs per bed amounted to 67,000 Dutch guilders.

Above: perspective drawing of the new Sophia Children's Hospital, by Cees de Vries, 1992. Below, left: State Secretary H. Simons drives the first pile of the new building on 26 April 1990. Below, right, the Sophia Children's Hospital under construction (May 1992).

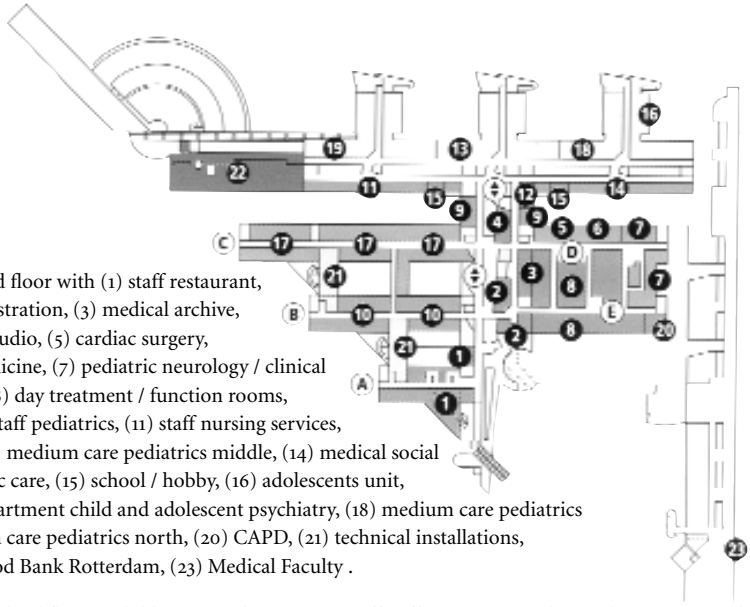


Plan I: Part of the ground floor with (19) the entrance of the child and adolescent psychiatry clinic, (20) staff child and adolescent psychiatry, (21) child psychiatry – yellow group, (22) child psychiatry – blue group, (23) kinesiotherapy, (27) child psychiatry – green group, (28) child psychiatry – red group, and (32) Red Cross Blood Bank Rotterdam. Not shown are the staff entrance, staff bicycle park, staff clothing distribution, beds storage, linen room, container room, ancillary services, cloak room, technical services, dairy kitchen, kitchen, physiotherapy, crèche and morgue.

Plan II: The first floor with (1) the entrance, (2) drive up area, (3) entrance emergency department, (4) reception desk, (5) emergency department, (6) appointments desk, (7) patient information desk, (8) admissions, (9) meeting room, (10) staff pediatrics, (11) staff pediatric surgical group / pediatric neurology, (12) dispensary, (13) medium care pediatric surgery middle, (14) medium care pediatric surgery / pediatric neurology north, (15) school / hobby, (16) retreat room, (17) outpatient department pediatrics, (18) blood drawing CKCL, (19) outpatient department pediatric surgical group, (20) ENT, (21) orthodontics, (22) outpatient department infectious diseases, (23) outpatient department reduced resistance, (24) special hematological laboratory, (25) department of radiology, (26) shop, (27) staff child psychiatry, (28) school / therapy child psychiatry, (29) medium care pediatric surgery south, (30) dietician, (31) diabetes nurse, (32) stoma nurse, (33) photographer / audiovisual services, (34) pediatric neurology, (35) hearing and speech center, (36) ophthalmology, (37) orthopedic cobbler, (38) entrance outpatient department reduced resistance, (39) Red Cross Blood Bank Rotterdam.

The building complex of the Sophia Children's Hospital, seen from the high rise building of the Medical Faculty.

III



Plan III: The second floor with (1) staff restaurant, (2) medical administration, (3) medical archive, (4) radio and TV studio, (5) cardiac surgery, (6) respiratory medicine, (7) pediatric neurology / clinical neurophysiology, (8) day treatment / function rooms, (9) meetings, (10) staff pediatrics, (11) staff nursing services, (12) dispensary, (13) medium care pediatrics middle, (14) medical social work and pedagogic care, (15) school / hobby, (16) adolescents unit, (17) outpatient department child and adolescent psychiatry, (18) medium care pediatrics south, (19) medium care pediatrics north, (20) CAPD, (21) technical installations, (22) Red Cross Blood Bank Rotterdam, (23) Medical Faculty .

Not shown are the third floor with library, teaching room, staff coffee rooms, incubator cleaning, central clinical chemical laboratory (CKCL), bacteriology, virology, instruments service, meetings, staff pediatrics / general staff, staff anesthesiology, dispensary, intensive care surgery, intensive care pediatrics, intensive care neonatology, intervention center, recovery rooms, covered bridge connecting the Sophia Children's Hospital with Medical Faculty / University Hospital Dijkzigt, board room, lecture room, technical installations, medical faculty, and the clinic's fourth floor, which housed the delivery rooms and the obstetrics nursing wards, now the Mother and Child Center.

Left: the opening of the new building of the Sophia Children's Hospital by Queen Beatrix on 9 March 1994, here at her arrival with Mayor A. Peper and Deputy J. Pool. Right: a tour of the intensive care neonatology; behind the monarch prof. Visser, to his right prof. Sauer and nurse Riet Meijer.

intensive care units could be brought together on one location. The fourth floor was intended for the department of obstetrics, so that a unique symbiosis was created between the departments of neonatology and of obstetrics, and the ideal advocated by prof. Visser since his inauguration had finally been realized with the move to Hoboken, naturally in conjunction with the obstetrics department of the AZR. The actualization of this combination of obstetrics and pediatrics, unique in Europe, was supervised by the professor of obstetrics prof. H.C.S Wallenburg, and the professor of neonatology prof. P.J.J. Sauer. The treatment block was to accommodate the operating and scopy suites, radiology, day-care treatment, dialysis, emergency care and functional examination. The child psychiatry building stood out from the rest of the complex by its building material (yellow brick), its height (two floors), its shape (round), its front position 'so that the children can go into town' and the large and especially laid-out garden. A group of young artists were commissioned to embellishing the interior. A covered bridge on third floor level connected the building of the Sophia Children's Hospital with the high-rise building of the medical faculty and the Dijkzigt Hospital.

A building committee headed by Mr. J. Barendregt, the chairman of the Board of Directors of the AZR, supervised the whole building project, in collaboration with the building firm (C.P. Verhage). J.P. van Eesteren, the contractor, was able to complete the new building according to schedule on 1 July 1993. Some four months later, the end of November 1993, the move from Gordelweg to Hoboken followed. On 9 March 1994, HM Queen Beatrix officially opened the new Sophia Children's Hospital.

Meanwhile a second new building, overshadowed by the works on the Hoboken land, was under way. The history of this initiative dates back to the late 1970s, when research evidenced the importance of 'the coaching and integration of parents of

The Ronald McDonald House Sophia Rotterdam on Rochussenstraat.

the sick child in the hospital'. After the first steps towards these ends had been taken using all kinds of simple means (information brochures, a visiting hours arrangement, use of Polaroid cameras for visual information from the department of neonatology), in 1982 the far-reaching decision was taken to introduce gradually a rooming-in system, which gives parents the opportunity to stay with their child overnight. Three years later, on the strength of the great success of this arrangement, the Sophia Children's Hospital decided to furnish part of the personnel apartment building The Pyramid as Parents' Guesthouse with eighteen bed-sitting rooms. On 9 October 1985, Mayor dr. A. Peper officially opened the Sophia Kinderziekenhuis Ouderlogeerhuis.

A little earlier the first Ronald McDonald Home in the Netherlands had opened its doors in Amsterdam, as part of the worldwide chain of parents' guesthouses promoted by the Ronald McDonald Children Fund. Further homes in the Netherlands were subsequently established in Groningen, Utrecht, and Nijmegen.

The move of the Sophia Children's Hospital to Hoboken entailed finding new accommodation for the parents' guesthouse. A building complex which was to arise at the corner Rochussenstraat-Eendachtsplein, the two upper floors of which would be furnished as guesthouse, solved this issue. Building commenced in August 1992, and the new guesthouse was officially taken in use at the end of 1994. Its new name, Stichting Ronald MacDonald Huis Sophia Rotterdam, indicates that in the meantime the Foundation Sophia Parents' Guesthouse, too, had become affiliated to the charity foundation of the well-known hamburger chain.

When at the end of 1989 it became clear that, all funding by the State notwithstanding, a ten million guilders shortage remained for the construction of the new chil-

Mr. O.A. Thissen (center) handing over the 16.5 million guilder check to Mrs. A. van Esveld-Roëll (left), member of the board of the Ronald McDonald House Sophia Rotterdam, and to J. Barendregt (right), chairman of the board of directors of the University Hospital Rotterdam.

dren's hospital, and furthermore that three million guiders for the building of a parents' guesthouse were lacking, yet another foundation was created in 1990. This Foundation for the Acquisition of Funds for the New Building of the Sophia Children's Hospital and the Sophia Parents' Guesthouse (Stichting Fondsenwerving Nieuwbouw Sophia Kinderziekenhuis en het Sophia Logeerhuis Ouders), in short the Stichting Fondsenwerving Nieuwbouw was initiated by the Vereniging Sophia Kinderziekenhuis but operated independently. Its members were recruited partly from the AZR circle (Mr. P. van Dijke, dr. P.A.E. Sillevis Smitt and Mr. W.A. Tiedemann) and partly from the circle of the Logeerhuis Ouders (Mr. G.J. van der Beek, Mr. R.W. Koole and Mrs. L. van Reeven); Mr. W. Engelsma became advisor and Mr. O.A. Thissen took the chair. The Foundation further included a committee of recommendation (see Appendix), and Mr. E.J. Broedelet was asked to coordinate fundraising activities.

In the period from 1990 to early 1994 the Stichting Fondsenwerving Nieuwbouw managed to raise 17 million guilders. A substantial contribution of 5.1 million guilders from the Vereniging Sophia Kinderziekenhuis was a great stimulus for the whole fundraising campaign. Of outstanding success was the sale of over forty-five thousand Sophia and Binkie figurines, which raised more than one million guilders. The expenses of this enterprise could be limited to a little over 2%, thanks to the secretarial assistance and accommodation which the AZR provided for free, the audit reporting service donated by Coopers & Lybrand Rotterdam, the advice offered for free by Mr. Engelsma and not in the least the charitable services of the Board members, in particular of chairman Mr. Thissen, Mr. Tiedemann and Mr. Van Dijke, who were responsible for the success of the fundraising campaign. Of this total of 17 million guilders (after deduction of expenses), 13 million guilders were allocated to the new Sophia Children's Hospital and 3.6 million to the Parents' Guesthouse. The money earmarked for rendering the new Sophia Children's Hospital extra child- and parent-friendly was mainly spent on enlarging the hospital's floor space (rooming-in facilities for parents with their children, additional living-rooms,

several waiting-rooms, parents consulting-rooms and sitting-rooms, an extra play-room, a patients' day-quarters, a studio for children's TV, class-rooms, and so on), enlargement of the parking facilities, the furnishing and decorations of the extra rooms (furniture, wall decorations, facilities for children's TV, and so on) and the design of the garden of the department of child psychiatry. In the entrance hall of the hospital a plaque was put up expressing heartfelt gratitude and mentioning all institutions and persons who contributed over 25,000 guilders, whilst adding explicitly that this thanksgiving 'goes out not only to the donors of large sums, but also to those who gave less'.

The children's hospital in motion

In all aspects of the functioning as a children's hospital, the organizational liaison with the Medical Faculty Rotterdam constituted a break with the past. The position of pediatric surgeon dr. Vervat guaranteed a greater continuity for the department of pediatric surgery than for the department of pediatrics, yet the metamorphosis into a university hospital touched the functioning of the Sophia Children's Hospital in all its branches.
Of crucial importance was the ambition to concentrate sick children in the children's hospital, which brought about a cumbersome territorial battle with those specialties that did not want to distinguish between adults and children. These included not only subspecialties such as pediatric neurology and pediatric dermatology, which soon required full-time involvement of specialists who were organizationally embedded in the mother specialties. Especially the pediatric surgical subspecialties – pediatric orthopedics, pediatric urology and pediatric cardiac surgery – offered resistance, as its specialists were usually dependent on operating facilities and patient units in the mother departments. That the departmental heads involved gradually grew convinced of the importance of treating and nursing sick children in a pediatric hospital, was the result of the perseverance with which the pioneers of the university-linked Sophia Children's Hospital pursued this ambition, and managed its realization in continual consultation with their colleagues.

As far as they can be deduced from the various sources, the statistics for the period under discussion give a first, though global, impression of the changes alluded to above. The years 1970, 1980 and 1990 may serve as points of reference. Most strikingly, numbers of admitted patients increased substantially, from 3,273 in 1970 to 4,654 in 1980 and eventually to 5,395 in 1990. Considering that in the 1970s bed capacity went up from 180 to 242 and after the reductions in the 1980s fell to 211 in 1990, these increases (by 42 and 16 per cent, respectively) could only occur in combination with decreasing mean lengths of stay, namely from 18.8 days in 1970 (still 22.5 in 1960) down to 15.1 in 1980 and 12.4 in 1990. Day-care treatment, introduced in 1985 for diagnostic and minor therapeutic – mostly surgical (70%) – interventions or radiotherapy, within a few years became an important element in the hos-

pital's functioning, witness the total of 2,283 patient days in 1990. Numbers of boys admitted continued to exceed those of girls (circa 60% versus 40%). Age distribution on the one hand showed a distinct increase in the proportion of newborns and infants, from 28% in 1980 to 35% in 1990. On the other hand, both the Dijkzigt Hospital and the SKZ admitted growing numbers of adolescents, and were facing resultant practical problems regarding bed length, bed times, behavior and sexuality. In the 1970s, adolescent admissions to the Sophia Children's Hospital tripled from a mere 77 children aged 13 years and older in 1972 to 274 in 1978. Most of them suffered from chronic disease, such as oncological disease, pancreatic fibrosis and diabetes. The new building of the Sophia Children's Hospital catered to these patients with an eight-bed adolescent unit.

These rough figures of course fail to bring out differences between the separate departments and specialties. For instance, mean length of stay in the department of Pediatrics shows a different curve from that in the department of Pediatric Surgery. The former, including neonatal intensive care, averaged 23.6 days in 1970, almost doubling the 12.9 days noted for Pediatric Surgery. Twenty years later, mean length of stay in Pediatrics had gone down considerably, resulting in the above-mentioned 12.4 days overall. Mean length of stay of patients with neurological and neuro-surgical conditions was almost five times as long as that of ear, nose and throat (ENT) patients. The distribution of pediatric beds between the different specialties is such that inclusion of these data in the overall statistics of the Sophia Children's Hospital would lead to intricate calculations. As an example may serve the figures for 1985, when the department of Pediatrics had 127 beds available, of which ten for neurology and three for dermatology; the Pediatric Surgical Group 90 beds, of which eleven for urology, ten for plastic surgery, eight for orthopedics and/or neuro-surgery and seven for ENT; and the department of Child and Adolescent Psychiatry 27 beds.

In line with the development of the university children's hospital as a top clinical and top referral institute, patients came from an ever growing area. However, inconsistency in the names used for the various regions impedes quantification of this trend. Still, we know that roughly one third of the patients came from Rotterdam, one third from the Rijnmond region, and one third from Zeeland, West-Brabant and the remaining part of the south-western Netherlands. A similar quantification problem occurs with the unmistakable increase in admissions of children of immigrant parents. Lacking a good relationship with first-line healthcare providers, many of the immigrant population considered the outpatient departments of the Sophia Children's Hospital as a first refuge.

In these years, the highest increase in activity is found in the outpatient departments, with the total number of visits (first-time and repeat) rising from 24,441 in 1970 to 50,278 in 1980, and reaching 72,731 in 1990. Until the mid-1980s, this growth partly resulted from more frequent repeat visits; from that time on, however, a decline in repeat visits provided room for more first-time visits. In view of these figures, the higher numbers of recorded procedures is not surprising. For some of these procedures, for example X-rays, the increase corresponded to that of the

Prof. H.K.A. Visser, under whose leadership as medical director and head of the department of pediatrics the Sophia Children's Hospital was transformed from a private children's hospital into a university center for the sick child of national and international standing.

number of patients. However, the greater role of laboratory diagnostics in modern pediatrics was responsible for the explosive growth of clinical-chemical tests.

This account would not be complete without an impression of the major diagnoses with which patients were admitted in the last decades of the twentieth century, in analogy to the one for the pre-university era. Tellingly, the list for the year 1980 is headed by congenital anomalies (18%), followed by respiratory diseases (13%). Digestive disorders (8%), perinatal conditions (7%), accidents (6%), urogenital conditions (5%) and infectious and parasitic diseases (5%) constitute a second cluster, responsible for one third of the diagnoses. Neurological syndromes (4%), skin diseases (3%) and endocrine, nutritional and metabolic diseases (2%) form the third major group of diagnoses. The department of Pediatrics, including the neonatal unit and the intensive care unit for older children, admitted 45% of the patients; Pediatric Surgery 24%; ENT 10%; Urology 6%; Plastic Surgery 5%; and Orthopedics 3%. The remaining patients were treated by Neurology, Neuro-surgery, Dermatology, Oral/Dental Surgery and Child and Adolescent Psychiatry. A specific category form

The infant clinic in 1975.

those children who had fallen victim to child abuse. The outpatient department physician J.J. Pieterse, who since 1972 functioned as 'professional mediator', and successfully defended his Ph.D. thesis Child abuse in the family in 1982, was among the pioneers in this field in the Netherlands.

A third series of data, after the diagnostic groups and departmental distribution, concerns the age distribution of the admitted patients. In the mid-1980s, about a quarter of patients were aged 0-12 months, circa 35% 1-4 years, circa 25% 5-10 years, and circa 12% 11-15 years. The overall mean age of patients in the Sophia Children's Hospital shows a gradual decrease over the years.

The intensification of clinical and outpatient activities as well as the introduction of new diagnostic and therapeutic modalities naturally drew heavily on the ancillary specialties and services in the Sophia Children's Hospital. In line with professor Visser's points of departure for the transformation into a university hospital, the children's hospital was to have its own facilities for X-ray diagnostics, laboratories for pathology, clinical chemistry and microbiology, a rehabilitation room, as well as ancillary services such as a dispensary, audio-visual department and library. The progress of X-ray diagnostics and radiology the Sophia Children's Hospital owes to dr. M. Meradji, who joined the children's hospital in 1970 as its first full-time radiologist. Dr. Meradji elaborated on the expansion in his field – from a consultative-supportive to an independent medical specialty with its own line of research – in

The 'climate room' of the neonatal unit in 1981.

his inaugural lecture as professor of pediatric radiology (*When can I play again,…*, 1990), a chair funded by the Sophia Foundation. Crucial was the introduction of non-invasive methods such as echography and CT-scan. In the completely inadequate accommodation of the department in the hospital at Gordelweg, professor Meradji and his staff eagerly awaited the completion of the new building of the Sophia Children's Hospital, where pediatric radiology would enjoy the use of the newest medical imaging techniques (1995 MRI) in a beautiful and spacious environment. At the same time, the training program in pediatric radiology in the Sophia Children's Hospital was thoroughly renewed.

Doubling its activities within a few years, the clinical chemistry laboratory underwent a similar development at the end of the 1960s. New, sophisticated equipment, further test automation and staff increments enabled it to cope with the growth. In 1969, the Sophia Children's Hospital opened its own laboratory for bacteriology and hospital epidemiology.

The nursing department played a vital role in the transformation into a university hospital. Under the supervision of nursing director Mrs. Van der Stadt, nursing care was now organized into nursing units based on the patients' ages. Thus, the department of Pediatrics comprised units for neonates, infants, toddlers, and for older children, in addition to a quarantine unit including, since 1971, the 'extra care' unit which admitted patients on the basis of the nature of their condition. Both from a

Ward visits in the department of pediatrics. Above: To the far left prof. Visser, in the center pediatricians H.J. Neijens and Mrs. A.F.F. Manusama-Tampinongkol, and to the far right the head nurse of the neonatal unit, nurse Post.

nursing and from an organizational point of view, this set-up yielded many advantages, the more so as the five units, all with 24 beds, had a similar size and staff capacity, and were led by one head nurse each. It proved more difficult to keep nursing practices up to date with medical advancements. The introduction of monitors, measuring equipment, respiratory ventilation schemes, and electronic monitoring systems necessitated a high degree of nursing specialization. This was achieved by differentiating training programs for various 'assistant'-functions, but nevertheless it required a good deal of adaptability within the traditional nurse's training course. Unfortunately, recruiting sufficient certified nurses remained an additional problem, and the often tried an tested method of financial and social improvement of the nursing profession did not always bring relief. The shortage was acerbated by the facts that patient care intensification required more staff input, and that the Sophia Children's Hospital was faced, in 1974, with a temporary government-imposed recruitment freeze.

These staffing problems did not violate the patient-first principle. Everything was done to ensure that the sick child's stay was as pleasant as possible. The walls were enthusiastically stripped of their dull hospital hues and painted in bright colors. The nurse 'with fröbel experience' from the previous century was replaced by professional game instructors, who were given free hand in the once again enlarged

playroom (1970). The introduction of 'unrestricted visiting hours' (1970) belongs to the same category of measures, as does the day-nursery (1971) where mothers could leave younger siblings when visiting the patient. The previously mentioned rooming-in facilities, the possibilities for parental participation, the team discussions about the admission of patients, the sessions preparing for treatment and for anesthesia were all in this line. These novelties demanded dedication and good mutual cooperation of the nurses, game instructors, welfare workers, hospital educational workers and spiritual advisers. In order to promote smooth functioning, a psychosocial platform was instituted at the end of the 1980s.

In the tradition of the former nursing sisters and the 'field organization' founded in 1959 to establish contacts 'between the clinic and the patient's milieu', the 'advisory, hygienic-educational role' received new attention within the organization of the Sophia Children's Hospital. In collaboration with welfare workers, child welfare organizations, social workers and church institutions, hundreds of patients were visited at home annually. A new function was that of 'patient companion', since May 1979 fulfilled by an experienced nurse (sister F. Bol), who accompanied patients when they had to go elsewhere for examination or treatment – mainly to the Rotterdam Radio-Therapeutic Institute, later the Daniël den Hoed Cancer Center. Late November 1985, the Sophia Children's Hospital set up a Patient Information Center, providing written and oral information for parents (run by Mrs. J.C. Koch).

In the quarter of a century preceding the opening of the new building, staff numbers rose in all fields. In 1969 the total number employed by the Sophia Children's Hospital was 574; in 1994 this number had trebled to 1.710, including 130 physicians and 480 nurses. These figures do not include the many volunteers who fulfilled significant ancillary functions in all kinds of areas. Special mention needs be made of the patients broadcast station 'Echo', which since 1961 has uninterruptedly offered its services in the Sophia Children's Hospital.

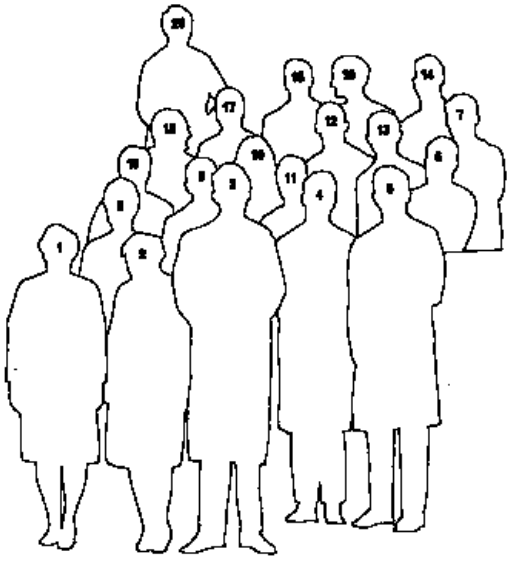
Pediatrics

Details of the developments in pediatrics were provided by the protagonist of the Sophia Children's Hospital in the Gordelweg period himself, by way of a thorough survey in his valediction *What is Johnny, will be John* (1995). Against the background of the general developments in pediatrics, such as the introduction of new antibiotics, oral re-hydration solutions (1967), anti-rhesus immunoglobulin therapy (1970), intensive care for prematurely borns and older children as well, nationwide screening of newborn infants for phenylketonuria (1974) and congenital hypothyroidism (1981), new imaging techniques and not in the last place the development of diagnostic and treatment modalities of hereditary and congenital anomalies and of chronic diseases, prof. Visser outlined, with justified pride, the role played by the Sophia Children's Hospital in these advances, with regard both to patient care and to scientific research.

In the developing phase of the Medical Faculty Rotterdam, professorial positions were flanked by lectureships with comparable tasks regarding education and research – and in the clinical disciplines patient care as well – yet without executive powers and without the title of professor. For the department of Pediatrics, however, the situation was more complicated from the start. In the first place, the faculty already counted a teaching post in pediatrics, held by the previously mentioned dr. J. Engelhardt, employed at the time by the Foundation Clinical Higher Education in the Zuiderziekenhuis. His appointment to lecturer in pediatrics (1967) continued this position, in which he was responsible for the training of interns in the Zuiderziekenhuis. After dr. Engelhardt's death, his successor in the Zuiderziekenhuis, dr. C.J. de Groot, also was appointed extraordinary professor of pediatrics in Erasmus University Rotterdam, but this situation came to and end when he left in 1986.

A second, more important consideration in the faculty formation of a university department of pediatrics was the representation of those subspecialties that had acquired sufficient significance to warrant the establishment of separate chairs. As flanking lecturer in pediatrics in the Sophia Children's Hospital pediatrician dr. J. Fernandes was appointed, who had a special interest in gastroenterology. After dr. Fernandes left to become professor of pediatrics in the University of Groningen, pediatric gastroenterology in the Sophia Children's Hospital was further expanded by dr. M. Sinaasappel.

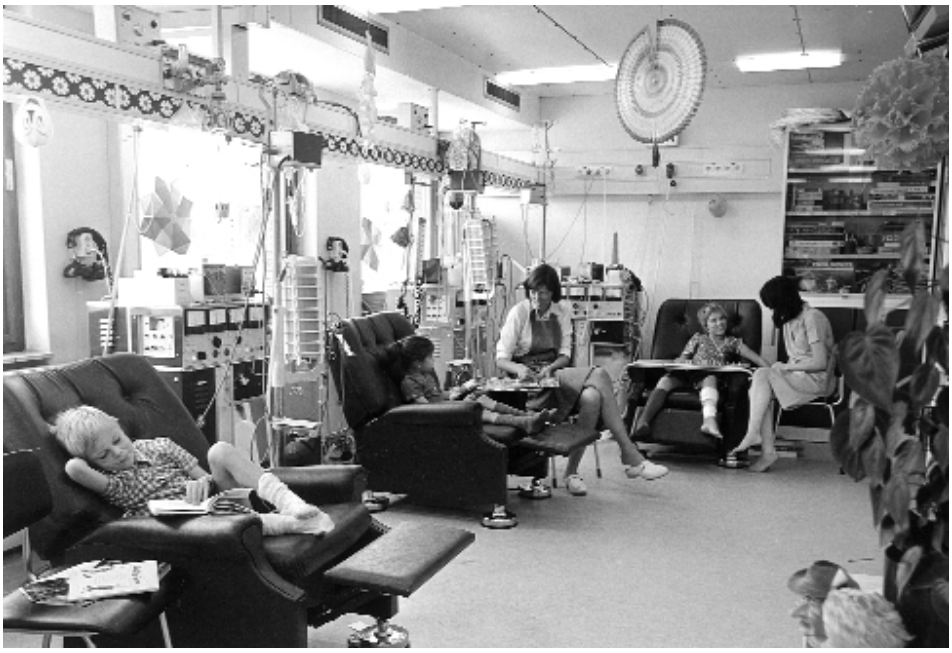
As a matter of course a department of endocrinology came into being, initially under the supervision of prof. Visser, who as lecturer in Groningen had shown his predilection for this specialty, and later in cooperation with dr. J.V.L. van den Brande. This department paid great attention to growth disorders, in addition to the more classic hormonal diseases. In 1976, dr. Van den Brande was offered a personal lectureship in pediatrics, in particular childhood endocrinology, but this could not prevent him from leaving in 1978 in order to assume joined leadership of the children's hospital in Utrecht as professor of pediatrics. The appointment of dr. H.J. Degenhart to extraordinary professor of chemical endocrinology in childhood disease, a chair founded by the Sophia Foundation, compensated dr. Van den Brande's departure on the non-clinical side. In 1985, dr. S.L.S. Drop was put in charge of the department of pediatric endocrinology. The history of diabetes patient care in the Sophia Children's Hospital (a discipline separate from pediatric endocrinology within general pediatrics) is linked to the name of dr. G.J. Bruining. In 1978, dr. Bruining initiated a remarkable project, which aimed at performing daily diabetes treatments (insuline-injections, blood and urine testing, etc.) as much as possible at home, after instruction by a specialized 'diabetes nurse' (until 1991 sister J. de Visser), an example that was soon followed elsewhere in the Netherlands. Thanks to this system, hospital stay and visits to the 'temporary' outpatient department were reduced considerably. The arrival in 1969 of pediatrician dr. K.F. Kerrebijn from The Hague greatly stimulated developments in the field of pediatric lung diseases in the Sophia Children's Hospital. Dr. Kerrebijn, who earned a nationwide reputation for this subspecialty, concentrated on clinical-epidemiolog-

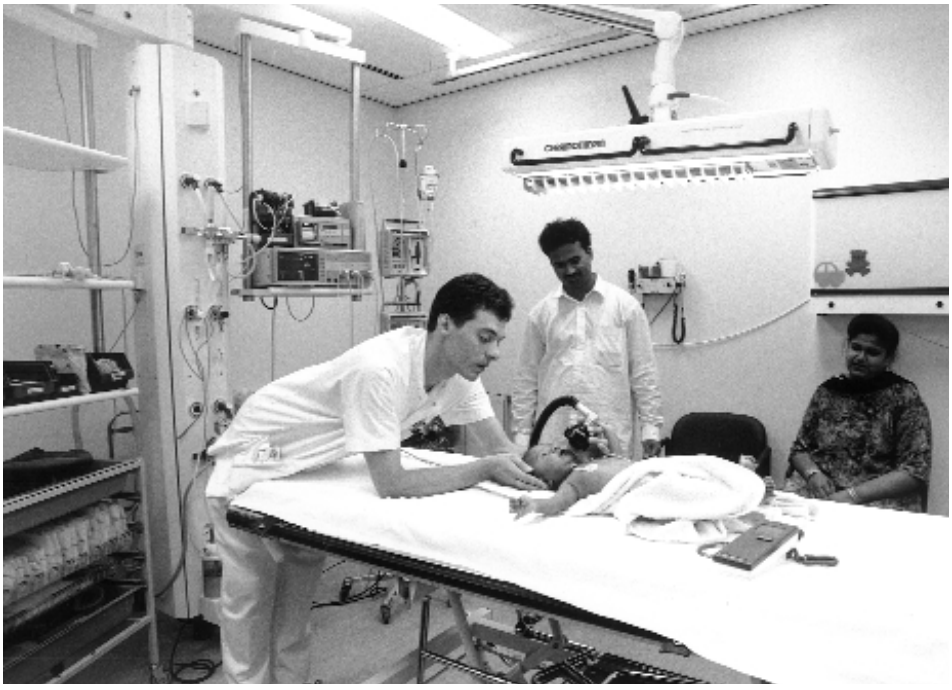


Staff members of the department of pediatrics in 1969. Key: (1) H.E. Zoethout, (2) H.J. Dijkhuis, (3) H.K.A. Visser, (4) G.J. Bruining, (5) J.V.L. van den Brande, (6) V.H. de Villeneuve, (7) E. Ben Gershôm, (8) J.J.M. van Collenburg, (9) C. Korthals Altes, (10) E. van Kuilenburg-Iemhoff, (11) A.F.F. Manusama-Tampinongkol, (12) M.V.L. du Caju, (13) H.J. Degenhart, (14) J. Fernandes, (15) K.F. Kerrebijn, (16) G.E. van Zanen, (17) G.L. Boermans, (18) J.W.Mettau, (19) T. Zurcher, and (20) J.F. van Gils.

ical and pharmacological research into the major chronic conditions of the respiratory tract in children: asthma and cystic fibrosis. In 1970, he was appointed personal lecturer (1978: extraordinary professor) in childhood lung diseases on behalf of the Dutch Asthma Fund, which position was converted into a full professorship in 1981. His colleagues and friends marked his leave-taking in 1994 with the collection *Putting the pieces together. A tribute to Professor Karel F. Kerrebijn.* In 1986, pediatrician dr. H.J. Neijens was appointed professor of pediatrics. At the time, he had been active as a staff member in the department of pediatric lung diseases for a decade, and his research was to form the basis for the new subspecialty pediatric immunology in Rotterdam.

Inextricably connected to the development of pediatric cardiology in the Sophia Children's Hospital is the name of dr. V.H. de Villeneuve, who was appointed lecturer in this subspecialty in 1972. The flourishing of cardiology in the last few decades of the twentieth century offered pediatric patients unprecedented diagnostic and treatment modalities. In his inaugural lecture *The heart, the child's heart* (1978), and





The hemodialysis department of the Sophia Children's Hospital in 1976 (above) and the reception of patients in the emergency department around 1980 (below).

again in his valediction *Mirror yourself mildly* (1986), De Villeneuve described this development in detail. His successor dr. J. Hess, at the commencement of his tenure as professor of pediatric cardiology in 1987, cast a view on the future (*Quo vadis?*), predicting a prominent place for intervention cardiology and pointing out the increasing importance of the prevention of cardiovascular conditions. Prof. Hess also warned his audience that in the enthusiasm for new operative interventions, the issue of morbidity at a later age, after previously undergone operations, should not be overlooked, and thereby underlined the task of the pediatric cardiologist.

In 1967, prof. Visser had given top priority to establishing a unit for neonates. This unit developed into an neonatal intensive care unit, which counted 24 incubators when the new building was taken into use. Apart from this neonatal intensive care unit, the Sophia Children's Hospital in 1970 opened the first intensive care unit for older children in the Netherlands, following the example of the children's hospital in Helsinki. Shortly before, prof. Visser had been a visiting professor in Helsinki, where soon also dr. Zoethout and Mrs. Breugem made themselves acquainted with the requirements for such a unit. Both intensive care units, for that matter, experienced a difficult start, as the necessary equipment and specific instruments for newborns and infants or older children were hard to obtain. It was not until the 1970s that manufacturers began to take an interest, and the necessary medical appliances for children from a very young age became available. Nevertheless, this unit was the location that most clearly showed the progress in pediatrics, both in a medical-scientific and medical-technical sense, and from a nursing point of view. New insights into the pathophysiology of the vital bodily functions, and new techniques of monitoring, diagnostics and therapeutic intervention, resulted in improved survival and recovery rates for children with conditions that only one decade earlier would have been qualified as quite hopeless. Intensive care thus developed into a separate field within pediatrics, requiring specialist knowledge and skills. In the Sophia Children's Hospital this was pediatrician E. van der Voort's special area of attention.

The progress made in the field of neonatology can rightly be called impressive. In part, it resulted from the availability of technically much improved intensive-care incubators, which were placed in 'climate rooms', and from the introduction of new treatment methods such as artificial ventilation of newborns. The age threshold for treatment was lowered to 24-28 weeks gestational age, and the lower weight limit went down to under 1000 grams. While in the first years after the introduction of neonatal artificial ventilation in the Sophia Children's Hospital in 1969, some ten newborns were treated annually, this number had increased to 150 in 1980. In that year the department's growth necessitated a staff increment and pediatrician dr. J.W. Mettau was appointed professor of pediatrics for the sub-discipline neonatology. However, prof. Mettau unexpectedly decided to resume his activities as a missionary pediatrician, and the new chair became vacant again in 1984. Dr. P.J.J. Sauer, active as pediatrician in the Sophia Children's Hospital since 1974, filled the vacancy in 1986. Supervised by prof. Visser, dr. Sauer had obtained his doctorate four years previously, on *Aspects of the energy metabolism of children with low birth weight*. In

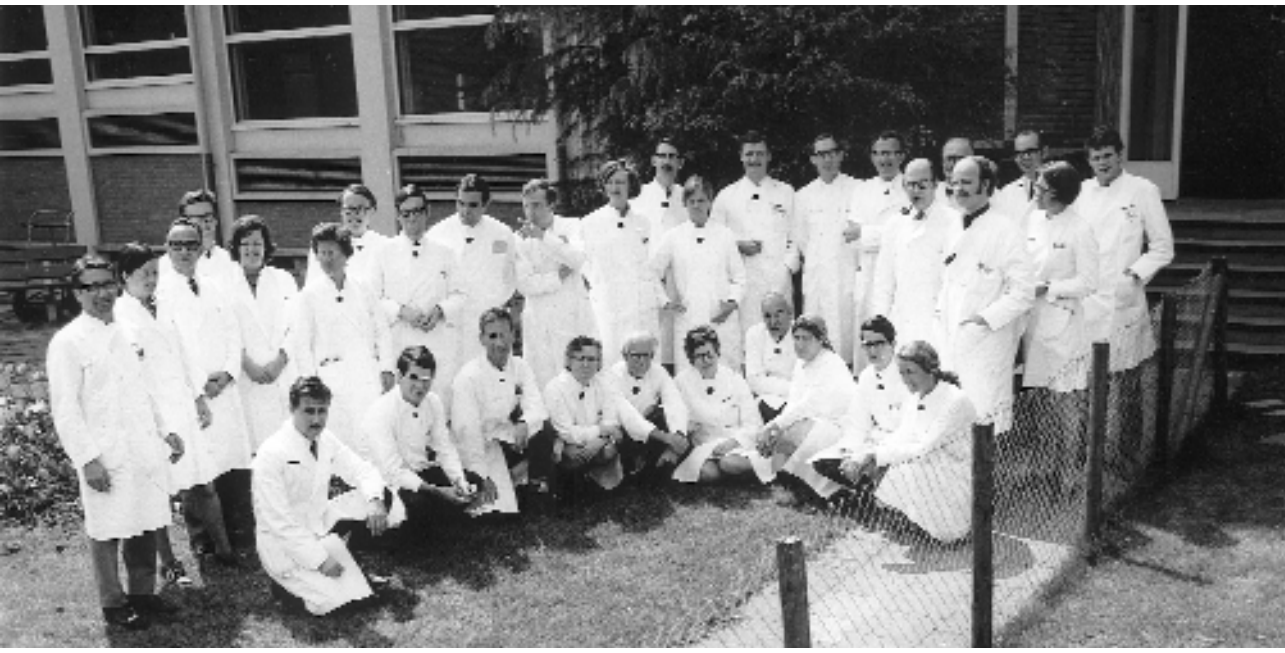
his inaugural lecture on *Care and science around the newborn* in 1987, prof. Sauer gave an account of the state of the art in his field, describing in particular the new possibilities for the treatment of very-low-birth-weight children by means of advanced ventilation techniques, intravenous nutrition, sophisticated laboratory methods, improved neonatal surgery and last but not least by safer transport of newborn babies. The fact that 20% of these children did not survive, 11% would later show light handicaps and 5% serious handicaps, made discussion of medical-ethical questions, concerning the boundaries of medical intervention and euthanasia in newborns, inevitable.

In those years, the functioning of the department of neonatology was severely impeded by a shortage of specialized personnel, and for a long time only six IC-incubators were actually in use. In an attempt to alleviate the problem, the Sophia Children's Hospital set up an intensive care training program itself in 1979, which gained a unique position on a national and even European level. In 1990, the Sophia Children's Hospital played a pioneering role in the preparation of national guidelines for pediatric intensive care nursing practice.

Hematology in the Sophia Children's Hospital was rooted in a longer tradition. Initially clinical chemistry was predominant, but it was overtaken by the clinical specialty of hematology that focused on leukemias and other malignant diseases, and thus formed the basis for the development of pediatric oncology. The pioneer in this field in the Sophia Children's Hospital was pediatrician dr. G.E. van Zanen. In 1971, no more than 14 patients with leukemia and 18 patients with a solid tumor were treated in the Sophia Children's Hospital, but ten years later numbers had risen to 79 leukemia patients and 156 patients with solid neoplasms. The number of outpatient visits rose from 185 in 1971 to as many as 2,449 in 1982! Dr. Van Zanen and his department gained a national reputation on account of the campaign 'Give for Life', the proceeds of which provided for the opening of a new oncology outpatient department which offered space for this growth in 1983.

Amongst the youngest representatives of the pediatric subspecialties are nephrology and the sterile nursing unit. The prospering of nephrology in the Sophia Children's Hospital, lead by dr. Zoethout (who had come from Groningen in 1966 together with prof. Visser), may be seen as resulting from the long-standing urological activities of the department of Pediatric Surgery. The cystoscopy room put into use in 1970 anticipated the diagnostic and therapeutic avenues the nephrology department would soon be exploring. In August 1974, the Sophia Children's Hospital became the second children's hospital in the Netherlands with a unit for long-term, intermittent hemodialysis, after the Utrecht children's hospital. In the early 1980s, under the leadership of dr. E.D. Wolff, over five hundred hemodialysis treatments were carried out annually. One year after the unit's opening, the department of Pediatric Surgery started performing kidney transplantations; in the years 1975-1979 this intervention was performed 23 times.

Children with serious infectious diseases (predominantly meningitis) were placed in isolation cubicles in the quarantine unit. In the early 1990s, this unit was con-



Staff members of the department of pediatrics with several interns in 1976/1977. From left to right, squatting: W.F.A. Grose, J.F. van Gils, J. Fernandes, H.E. Zoethout, C. Korthals Altes, J.J.M. van Collenburg, J.J. Pieterse, J. Vejmolova, G.J. Bruining, and C.G. Tromp. From left to right, standing: E. Ben Gêrshom, intern, M. Meradji, P.P.F.X. Forget, G.L. Boermans, H.J. Dijkhuis, R. Schornagel, H.J. Neijens, P.W. de Haas, J.W. Steffelaar, T. Zurcher, J. Bouquet, R. Stoffelsma, N. Sorgdrager, C.P.A. van Boven, H.K.A. Visser, W. Blom, G.E. van Zanen, Krayepoel, J.W.Mettau, and two interns (K. Heins and J. Luyendijk).

fronted with growing numbers of children with AIDS. By furnishing two cubicles with a laminar-flow system, sterile nursing of children with serious immune system disorders was given a place of its own in the Sophia Children's Hospital, though only temporarily.

Although pediatric neurology had a few beds available in the 'old Sophia Children's Hospital', it did not yet have its own nursing unit. For many years the department of Neurology (prof. dr. A. Staal) referred patients with neurological conditions to Mrs. dr. M.C.B. Loonen. Furthermore, the Sophia Children's Hospital took part in several collaborations, in particular with the Adriaan Foundation Children's Rehabilitation Center and with the Working Group Meningo-myelocele (or: MMC-team) for the treatment of children with spina bifida.

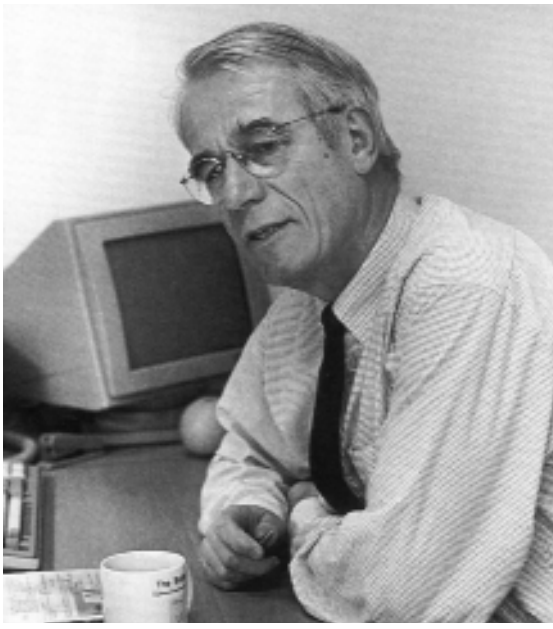
Last but not least mention must be made of pediatric dermatology. It became a widely known sub-department of the department of Dermatology headed by dr. A.P. Oranje, also owing to his hand- and textbooks, which were well received in the medical world.

Pediatric surgery

Two years after the department of Pediatrics, the department of Pediatric Surgery also gained university status, making the Sophia Children's Hospital, as from 1 January 1969, the first children's hospital with university status for that field. In August of the same year, dr. Vervat was appointed lecturer in pediatric surgery. Various innovations, such as the renewal and extension of the operation suites, the furnishing of an anesthesia preparation- and recovery room and an intensive care unit reserved for surgical patients (1970), expressed the beginning of a new era also spatially. Dr. Vervat's appointment to medical director in the new board (1971) of the University Hospital Rotterdam meant the departure of the figure-head that had brought the department acclaim both at home and abroad. One year later the vacancy was filled by dr. J.C. Molenaar, who was at the time lecturer in pediatric surgery in the University Hospital of the Free University, Amsterdam. In 1976, this lectureship was converted into an extraordinary professorship funded by the Sophia Foundation, which made dr. Molenaar the first professor of pediatric surgery in the Netherlands. This milestone was marked by his inaugural lecture *Who shall push our baby? Quo vadis chirurgia pediatrica Neerlandica?* (1977), in which he again expounded on the merits of his predecessor – in particular as an advocate of independent surgical clinics for children – and mapped out the actual and future positions of the specialty. In 1990, the extraordinary chair was converted into a full professorship. Through intensive dialogue with the surgical specialties involved, prof. Molenaar realized a new working structure in the shape of a 'pediatric surgical group', which comprized ENT, orthopedics, urology, cardiosurgery, neurosurgery, plastic surgery, and anesthesiology. This set-up was recognized by the hospital board. Cooperation within this group was guaranteed by daily central patient discussions, and in addition by the creation of a collective infrastructure within the new building of the Sophia Children's Hospital, comprising both a central surgical intensive care unit and a pediatric surgical department.

The near quarter of a century in which prof. Molenaar was in charge of the pediatric surgical group saw his department of Pediatric Surgery maintain and strengthen its reputation and leading position with regard to both patient care and scientific research, nationally as well as internationally. Much attention was paid to the medical-ethical questions with which pediatric surgeons were increasingly confronted, such as the dilemmas surrounding withholding medical treatment ('need we do all that is possible?') and 'end-of-life decisions'.

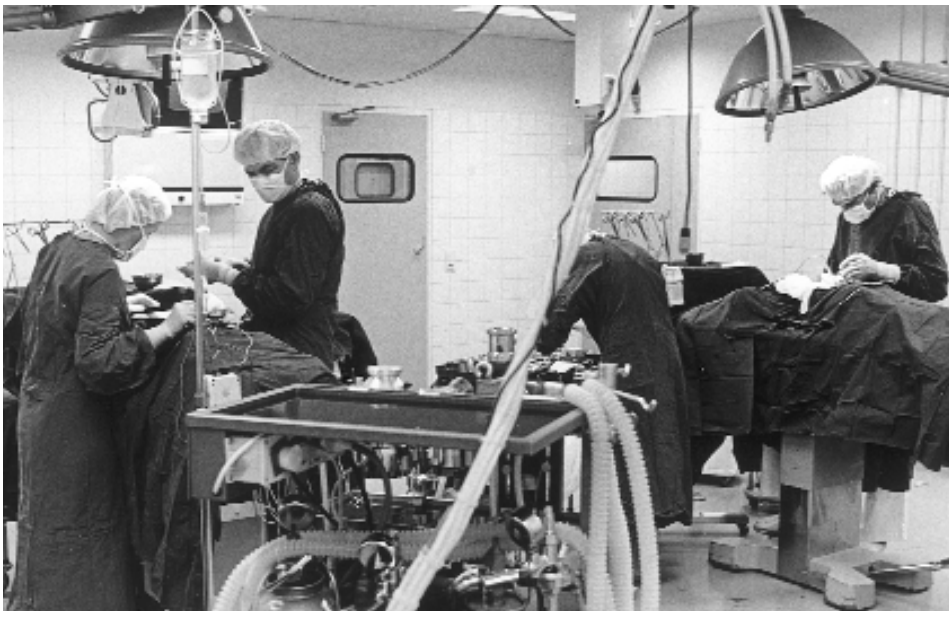
Parallel to the development of the pediatric subspecialties, the department of Pediatric Surgery witnessed changes in the surgical specialties. Owing in part to the completion of the modern cystoscopy room (1970), pediatric urology was given new impetus by the arrival of prof. N.J. Bakker and in particular dr. C.J.G.C.A. Cornil. In 1972 the latter was appointed lecturer in urology, with as special assignment pediatric urology. After prof. Cornil's departure in 1975, the resultant vacancy was not filled until dr. R.J. Scholtmeijer was appointed professor of pediatric urology in



Prof. J.C. Molenaar, head of the department of pediatric surgery, during a ward visit in 1974; and portrayed in 1994.

1979. In this position prof. Scholtmeijer succeeded in raising the profile of his specialty, among other things through his inaugural lecture (*Some aspects of pediatric urology*, 1979) that plotted the pediatric urologist's field.

The previously mentioned development of pediatric cardiology would have been unthinkable without the contribution of thoracic surgery in children, which in cooperation with the Sophia Children's Hospital was to expand enormously. Side by side with the new possibilities for function diagnostics (heart catheterization, angio-, vector- and phonocardiography), surgical correction of cardiac abnormalities greatly improved, on account of the introduction of the heart-lung machine, enhanced pre- and postoperative methods and the expertise of the Thorax Center's team of surgeons (headed by prof. J. Nauta). Major interventions in children were performed in the Thorax Center, whilst the operating theater of the Sophia Children's Hospital was reserved for less complicated operations. In 1970, 42 children underwent heart surgery. By the early 1980s this number had increased to over fifty, and later non-invasive techniques offered new possibilities. In 1990, 31 heart operations were performed in the Sophia Children's Hospital. While in 1975 still as many of 15-20% of children with congenital cardiac anomalies died after surgical intervention, this number had falled to 7-8% in 1989. In 1977, the Sophia Foundation created a chair for pediatric cardiac surgery, to which thorax surgeon dr. E. Bos was appointed. His successor (1987) dr. J.M. Quaegebeur occupied the chair until 1990, which was then left vacant until the appointment of dr. A.J.J.C. Bogers in 1995.



The operating room of the Sophia Children's Hospital in the 1980s.

Also based at the Dijkzigt hospital were the departments of plastic and reconstructive surgery, orthopedics and otorhinolaryngology, each with a full-time staff member active in the Sophia Children's Hospital. Pediatric neurosurgery remained centered in the 'Dijkzigt' department. Pediatric ophthalmology was long represented in the Sophia Children's Hospital on a consultative basis only, since 1975 in the person of professor A.Th.M. van Balen, holder of the chair in pediatric ophthalmology established by the prof. dr. H.J. Flieringa Foundation. The relationship of the Sophia Children's Hospital with ophthalmology changed with the creation of a department of ophthalmology at the University Hospital Rotterdam (1993).

Among the surgical disciplines in the Sophia Children's Hospital, a special position is occupied by experimental pediatric surgery, for which the Sophia Foundation set up a chair in 1993. It is held since by pediatrician dr. D. Tibboel, head of the pediatric surgical intensive care unit. The discipline's goal was 'to enable the child with a congenital anomaly to lead a normal life by offering optimum modes of treatment, and having knowledge of the processes that govern both normal and abnormal development', as prof. Tibboel stated in his inaugural lecture *A pinch more*. This was to be achieved through close cooperation with experimental embryology, teratology, developmental biology, and genetics.

Finally, the department of anesthesiology distinguished itself within the Sophia Children's Hospital, first (1989) by setting up a pediatric pain team (headed by anesthesiologist Mrs. N. Bouwmeester) and next by the recognition of pediatric anes-

The intensive care unit of the department of pediatric surgery around 1980 (left) with in the center the later prof. F.W. Hazebroek, and in the ward (right).

thesiology as a subspecialty, in which the head of the department of Anesthesiology, Mrs. dr. A. Meursing, played a pioneering role also nationally.

Child and adolescent psychiatry

The aim of developing the Sophia Children's Hospital into a university center for the sick child implied the provision of services for children with psychiatric conditions. In consultation with the professor of psychiatry G.A. Ladee it was decided to detach child and adolescent psychiatry from psychiatry in the Dijkzigt Hospital, and to appoint a new professor for this specialty, who was to be active in the children's hospital. In 1969, child psychiatrist dr. D.J. de Levita was appointed to the new chair, and instructed to set up the new department.

The field of pediatric psychiatry included three areas. First, a special team was responsible for mental counseling and mental health treatment of the children admitted to the departments of Pediatrics and Pediatric Surgery. This team also assumed a consultative function in the outpatient clinics of these departments. Second, outpatient treatment was initiated, first in a set of rooms in the Sophia Children's Hospital, and from 1970 in the previously mentioned villa on Walenburgerweg. Third, in November 1970 preparations for a pediatric psychiatric clinic began. The L. van Stolk pavilion offered room for day treatment for seven children.

In June 1972, a unit for day and night care for seven children was furnished on the first floor of the nurses' home (the so-called Lijnbaan). It was not until a meeting on 22 April 1975 – during which prof. De Levita unveiled the Mother and Child statue and also turned over his office to his successor Mrs. dr. J.A.R. Sanders-Woudstra – that the department of Child and Adolescent Psychiatry was granted the use of more spacious accommodation in the new building SKZ-II. The clinic was housed on the ground and first floors. Here, the center for pediatric psychiatric day treatment (recognized on 1 February 1975) was able to extend its capacity to twelve children in August of the same year, and day and night care capacity could be doubled to fourteen in August 1976. The second floor was home to the outpatient clinic, which replaced the accommodation at Walenburgerweg. As mentioned above, the extension of the department of pediatric oncology in the building SKZ-II forced the department of Child and Adolescent Psychiatry to find accomodation elsewhere. This led to the opening of the Vredestein building on Straatweg in the Hillegersberg district in 1982. In 1994, the spacious provisions (21 day and night admissions and six day-care admissions) in the new hospital on the Hoboken campus finally gave the department the opportunity to spatially effectuate the indeed unique functional integration of pediatric psychiatry in a children's hospital. In cooperation with the adult psychiatry department in the Dijkzigt hospital (prof. W.J. Schudel), the department realized an adolescent unit in 1998.

The clinically admitted children usually stayed long, from five months to five years, with a mean of two years. The number of day-care treatments declined during the 1980s from 2,261 patients in 1980 to 1,407 in 1990. In this period, some four to five hundred 0 to 18 years old children were seen in the department's outpatient clinic annually. Like those of their colleagues in pediatrics and pediatric surgery, the inaugural lectures of the various professors of child psychiatry constitute a rich source for tracing the developments of this specialty in the Sophia Children's Hospital. In her inaugural lecture *Child and adolescent psychiatry in perspective* (1976), prof. Sanders-Woudstra characterized her field as developmental psychiatry concerned 'with the individual development of the child and the adolescent into adulthood and with abnormalities in the maturation process'. This accentuation of the developmental aspect was closely in line with the characteristics that the Sophia Children's Hospital professors of pediatrics and pediatric surgery advocated for their specialties. The same characterization appears in prof. Sanders-Woudstra's valediction (*The developmental aspect in child and adolescent psychiatry*, 1987). In this lecture she also described the great expansion of psychosocial care for children and parents in the Sophia Children's Hospital over the past years. The fact that three of the five Ph.D. students she supervised (R.B. Minderaa, F.C. Verhulst and F. Verheij) as well as her coworker B. Gunning, were all to hold chairs in child psychiatry, illustrates the high quality of her department, and proves that research flourished during her tenure. The 1988 farewell symposium *Child and adolescent psychiatry in perspective* for prof. Sanders-Woudstra provides a detailed overview of these years. Also in 1988, she was appointed honorary member of the Dutch Association of Psychiatry.

Prof. J. Sanders-Woudstra (left) with her successor as head of the department of child and adolescent psychiatry, prof. F.C. Verhulst (right).

Her successor dr. Verhulst in his inaugural lecture fully concurred with his predecessor's strategy, but also announced his intention to reinforce interactions between patient care and research, in particular by extending longitudinal studies. The current research into developmental aspects of more than two thousand children in the province of South Holland was to form the basis for child psychiatric epidemiology, a research line that gained the department international renown in later years. Other major research themes were problematic behavior in adopted children and the verification and taxonomy of child psychiatry. At the end of the period under review, the appointment of dr. F. Verheij established a new balance between clinic and research. Dr. Verhey's assignment focused on clinical child and adolescent psychiatry as 'a medical specialty with a central role for bio-psychosocial diagnostic assessment'.

Several hand- and textbooks raised the faculty's national profile, such as *Leerboek kinder- en jeugdpsychiatrie* (1985) edited by prof. Sanders-Woudstra and Mrs. H.F.J. Witte, which was to grow into a multi-volume standard work under the editorship of Verhulst and Verheij; *Kinderpsychiatrie voor de praktijk* (1987) which Verhulst co-authored with prof. Sanders-Woudstra; *De ontwikkeling van het kind* published in 1989 by Verhulst, and finally *The epidemiology of child and adolescent psychopathology* (1995) under the editorship of Verhulst and J.M. Koot.

Education and research

The metamorphosis of the Sophia Children's Hospital into a university hospital naturally included the incorporation of the different pediatric specialties into the basic educational curriculum, the broadening of residents' training programs, the broadening and intensification of postgraduate education, and the establishment of educational activities in the whole range of paramedic professions that developed within pediatrics and youth health care. Dozens of foreign physicians came to the Sophia Children's Hospital to follow training courses for a shorter or longer time. Of the pediatricians who started their specialization or career in the Sophia Children's Hospital, a remarkable number (over twenty!) was appointed to chairs in general pediatrics or one of the pediatric specialties elsewhere.
For the educational activities of the medical schools the reader is referred to the history of the institutions and organizations involved. This applies in particular to the history of education in the Medical Faculty Rotterdam (1966-1973), the Faculty of Medicine (and Health Sciences) in Erasmus University Rotterdam (1973-2002), and, beyond the period under review here, the Erasmus MC (Erasmus University Medical Center). As the core of the curriculums consisted in internships in pediatrics, the Sophia Children's Hospital was permanently populated by large groups of senior students. Through internships in surgery and psychiatry, these students were introduced to pediatric surgery and pediatric psychiatry respectively. Regarding the history of the training of medical specialists in the Sophia Children's Hospital, the frameworks can be found in the regulations issued by the Dutch Central Board of Medical Specialties (CCMS) and the Medical Specialist Registration Committee (MSRC). The spacious lecture hall, conference rooms and in particular the well-equipped audiovisual department and medical library in the Sophia Children's Hospital provided the proper infrastructure for these educational activities.

These facilities were also indispensable for research purposes in the Sophia Children's Hospital. After a difficult start under dr. Reerink, the research program was given a new impetus with the arrival of prof. Visser. Dozens of research projects and consequentially hundreds of publications, mostly in renowned journals, as well as the organization of and participation in numerous scientific congresses and symposia, might be mentioned here to demonstrate that the Sophia Children's Hospital soon reached national and international top rankings in fundamental and clinical-medical research. Under supervision of the professors in the Sophia Children's Hospital, dozens of researchers successfully concluded their research projects with a Ph.D. degree. The appended list of Ph.D. theses also includes several projects the research for which was conducted at the Sophia Children's Hospital, even if the principal supervisor was not a staff member. At the end of the 1980s, the research infrastructure was expanded with a new laboratory for the department of Pediatrics in the Hoboken Faculty of Medicine building. Research efforts here concentrated on pediatric gastroenterology, infectiology, oncology and neonatology.

In the 1980s and 1990s, several new professors joined the Sophia Children's Hospital: from left to right H.J. Neijens (pediatric pulmonology / pediatric immunology), P.J.J. Sauer (neonatology), D. Tibboel (experimental pediatric surgery), F. Verheij (child and adolescent psychiatry), S.L.S. Drop (pediatric endocrinology), J.C. de Jongste (pediatric pulmonology), H.A. Büller (pediatrics), W.F.M. Arts (pediatric neurology), and R. de Groot (pediatric infectious diseases).

From the start, scientific research in the Sophia Children's Hospital was in large part facilitated, and strongly stimulated, by the Sophia Foundation, as has been detailed earlier. In the past three decades this Foundation subsidized almost two hundred scientific research projects; established eight extraordinary chairs; funded fellowships, seminars and lectures, notably the triennial lectures named after the Sophia Children's Hospital pioneers; and awarded prizes to young researchers. Details on these projects and those who carried them out are to be found in the extensive annual reports and historical reviews published by the Sophia Foundation over the years.

De title *From fata morgana to reality*, which was given to the collection published in 1997 on the occasion of prof. Molenaar's retirement, would have served as a comprehensive title to this chapter. The university center for the sick child, in the mid-1960s propagated by prof. Visser through a variety of notes and reports, seemed a fata morgana indeed in the eyes of many at the time. More than a quarter of a century later, however, with the new building of the Sophia Children's Hospital as the embodiment of what used to seem a fantasy, the reality was that the Rotterdam children's hospital had developed into the biggest pediatric center in the Netherlands, with a glorious top position in scientific research and patient care in pediatrics, pediatric surgery, and child and adolescent psychiatry. The translocation to Hoboken was in a way the conclusion of this period of building and change: in the shadow of the high-rise building of the medical school and the outdated 'Dijkzigt' building complex, a period of consolidation and continuous adaptation to the dynamics of medical science and healthcare was to follow.

chapter 7

Epilogue: the SKZ during the decade 1994-2004

The history of the most recent decade of the Sophia Children's Hospital can only be described in catchwords, and hence is added here as an epilogue to the thorough account of the 130 years in which a small hospital, based at the top floor of a rented house on Hoogstraat, became a university pediatric center, located in an imposing new building complex on the Hoboken campus. The developments that took place on this location are detailed in the recent annual reports, and also in the fine books that have been issued, since 2000, by the Department of Pediatrics, in order to inform the public at large about various aspects of the functioning of the SKZ, in particular its innovations. Amongst the latter is the extension of extramural care in the treatment of chronically ill children, which includes the expansion of the department of home mechanical ventilation (dr. E. van der Voort).

Choosing the mid 1990s as a breaking point is justified on the grounds of three developments. In the first place, a new and distinctive era began when the new building of the Sophia Children's Hospital was taken in use. The backdated and spatially insufficient accommodation at Gordelweg was abandoned, and the geographical separation of the University Hospital Dijkzigt and the Medical Faculty thereby remedied. Secondly, the departments of Pediatrics and of Pediatric Surgery both underwent changes in leadership. In 1995, prof. Visser, founder and dean of buildings of university pediatrics in Rotterdam, was accorded emeritus status. The occasion was marked by a two days' symposium entitled 'Pediatrics in Perspective'. In two years' time, the institution of the previously mentioned H.K.A. Visser lectures followed. Dr. H.A. Büller, a pediatrician from Amsterdam, was appointed as prof. Visser's successor in 1997. A few years later prof. Molenaar took his leave from the Department of Pediatric Surgery. Working from the basis laid by his predecessor dr. Vervat, prof. Molenaar had brought pediatric surgery in Rotterdam into full blosom. His retirement, too, was marked by a symposium, that bore the same title as his valediction '*Wie wordt er wijzer van!*' ('*Who gets the wiser!*'). As a token of appreciation, the Sophia Foundation decided in 1999 to institute the annual Jan C. Molenaar prize, awarded for the best presentation of a research proposal by a young researcher. In May 1998, prof. Molenaar was succeeded by his close colleague dr.

On 24 November 2003, the three departmental heads in office during the Gordelweg era of the university Sophia Children's Hospital met with their successors in a round table meeting, bringing out the continuity of the Rotterdam children's hospital's past and present. From left to right professors F.W.J. Hazebroek, F.C. Verhulst, H.A. Büller, J.A.R. Sanders-Woudstra, J.C. Molenaar, and H.K.A. Visser.

F.W.J. Hazebroek. The Department for Child and Adolescent Psychiatry, however, remained in the hands of prof. Verhulst. A third and final reason for why the mid 1990s proved a watershed is found in the far-reaching organizational changes within the University Hospital Rotterdam and the Medical Faculty. After the Faculty's reorganization in the mid 1980s, in which prof. Visser, dean from 1986 to 1990, played a key role, subsequent deans (among others prof. Kerrebijn from the SKZ) guided the Faculty and the University Hospital Rotterdam towards a merger in the Erasmus MC. Within this structure, the Sophia Children's Hospital received its new name of Erasmus MC-Sophia as from 2 June 2002.

Despite these clear breaks with the past, the development of the departments of Pediatrics, Pediatric Surgery and Child Psychiatry show remarkable continuity. The infrastructure provided by the imposing new building was used with great satisfaction to improve and expand patient care, education and research. As we speak, several areas have already undergone renovations and further extensions, for instance the adolescent clinic (1998) and the mother and child center (2003). The profiling of pediatric sub-specialties was continued with the institution of new (extraordinary) professorships, and new professors were appointed to vacant chairs. Among the new chairs are that of Pediatric Infectious Diseases and Immunology (dr. R. de Groot, 1998), Pediatric Diabetes (dr. G.J. Bruining, 2000) and Pediatric Oncology (dr. R. Pieters, 2000). In the University Hospital Rotterdam Dijkzigt an extraordinary professorship in Pediatric Neurology was established (dr. W.F.M. Arts, 1997). The extra-

The board of the Association Sophia Children's Hospital in 2003. From left to right on the front row: Mrs. H.M.A. Opstelten-Dutilh, B.C. Bosselaar, Mrs. F.Y.N. de Bakker-Kerstholt, O.A. Thissen, Mrs. prof. dr. S.P. Verloove-Vanhorick, and R.P. Eemsing; on the last row G.Chr. Kok, J.A.M. Nelissen, R.P. Pfeiffer, and J.V.M. Rijpkema.

ordinary chair in Developmental Psychology was occupied only for a short time (dr. J.H. Koot, 2000-2001). In the existing chairs, a new generation of professors comprised dr. S.L.S. Drop (Pediatric Endocrinology, 1994), dr. J.C. de Jongste (Pediatrics, in particular lung diseases in children, 1996), dr. J.N. van den Anker (Pediatrics, in particular neonatology, 1999-2001), dr. A.J. van der Heijden (Pediatrics / Pediatric Nephrology, 2001), dr. W.A. Helbing (Pediatric Cardiology, 2001), and dr. J.B. van Goudoever (Neonatology, 2003).

Much attention was paid to improve the teaching of medical students as part of the new educational curriculums that were being developed by the Medical Faculty ('Arts 2007'). The internationally recognized position as research institute was strengthened by a significant increase in the number of researchers around the turn of the century. This increase was largely facilitated by the so-called second and third source funding by governmental and independent research institutes. Research in child and adolescent psychiatry (prof. Verhulst) deserves special mention, as do the research collaborations of the Faculty and the Children's Hospital. Thus the departments of Pediatric Surgery and Cell Biology and Genetics joined forces for research into congenital anomalies, those of Pediatric Infectious Diseases and Virology in the Erasmus Vaccination Center Rotterdam. The department of Pediatrics has established collaborations for epidemiological studies such as the Generation-R project that was set up in 2002 to follow ten thousand children in Rotterdam into adulthood, in order to establish the roles of genetic disposition, diet, emotions and envi-

ronment in their growth and development. This study will also shed light on the impact of the profound changes in the social-cultural and ethnical composition of the inhabitants of Rotterdam. Rising numbers of Ph.D. students demonstrate the intensification of research in the Sophia Children's Hospital (see Appendix).

The Association Sophia Children's Hospital, which had remained a recognizable factor at its base on Gordelweg even after the transfer of the actual administration in 1971, and the transfer of the buildings in 1975, retreated into the wings of the new Sophia Children's Hospital on the Hoboken campus. Unaltered, however, was the Association's importance as a an umbrella organization of those foundations, described above, that were responsible for many of the different provisions in the Sophia Children's Hospital. Of those, the Sophia Foundation for Medical Research in particular continued to play a role of undiminished importance in the functioning of the Sophia Children's Hospital as a university research institute. On 9 October 2002, all these foundations merged into the new Foundation Sophia Children's Hospital Fund, whose primary objectives were the advancement of medical scientific research in childhood and the protection of the interests of the sick child. In the meantime, the successful fundraising activities for the new Sophia Children's Hospital had been the occasion in July 1994 for setting up a supporting organization, the Foundation Friends of the Sophia. However, the Sophia Foundation Parents' Guesthouses, which merged into the Ronald McDonald House Sophia Rotterdam at the end 1994, as well as the Foundation Sophia TV, remained independent of the Foundation Sophia Children's Hospital Fund.

This foundation and all its predecessors, with the Foundation Sophia Children's Hospital Fund as its actual core, represent the essence of the history of the Rotterdam children's hospital as described in this book. That essence is Caritas, the now obsolete term for loving involvement with the well-being of fellow human beings, in this case sick children. Caritas, not in its sometimes so patronizing and often so impotent guise of the nineteenth century, but in its modern form of care for the sick child, that deserves the best that medical science and all those involved in health care have to offer. Over the course of a century and a half, the Sophia Children's Hospital has become a monument to the Caritas that generations of people in Rotterdam have bestowed onto the sick child.

Appendices

THE BOARD OF THE ASSOCIATION SOPHIA CHILDREN'S HOSPITAL

The following legal bodies are here subsumed under the name Association Sophia Children's Hospital:

1863-1865	Founders' Committee
1865-1870	Association The Children's Hospital
1870-1875	Association The Sophia Children's Hospital
1875-2002	Association Sophia Children's Hospital and Nurses' Association
1934-2002	Association Sophia Children's Hospital and Infant Clinic
2002-present	Foundation Sophia Children's Hospital Fund

Between 1973 and 2002, its administration was combined with that of the L. van Stolk Fund, the Sophia Foundation for Scientific Research (SSWO), and the Sophia Foundation for the Sick Child – including the Mr. O.A. Thissen Fund (1996) and the Sophia Foundation for Patient Care (1992).

Chairmen: 1865-1876 A.A. Reepmaker; 1876-1880 P. Hazelaar Jzn; 1880-1882 Mr. D.H. Delprat; 1882-1885 P. Havelaar Jzn; 1885-1888 Mr. D.H. Delprat; 1888-1892 P. Havelaar Jzn; 1892-1893 Mr. C.H.B. Boot; 1893-1895 Mr. J.J.M. Taudin Chabot; 1895-1898 Mr. C.H.B. Boot; 1898-1900 W. Wijt; 1900-1902 E.P. de Monchy Rzn; 1902-1907 W. Wijt; 1907-1911 Jhr O. Reuchlin; 1911-1912 I.J. Havelaar; 1912-1916 Jhr O. Reuchlin; 1916-1917 A.Ed. Dinger; 1917-1920 J.J. Pit; 1920-1924 A.Ed. Dinger; 1924-1926 J.P. Schalkwijk; 1926-1929 J.J. Pit; 1929-1934 W. Suermondt Lzn; 1934-1941 Dr. G.H. Moll van Charante; 1941-1948 J.A. Stenfert Kroese; 1948-1949 L. van Stolk (acting chairman); 1949-1976 L. van Stolk; 1976-1993 Mr. O.A. Thissen; 1993-1996 Dr. A.H.G. Rinnooy Kan; 1996-2003 Mr. G.Chr. Kok; 2003-present Mr. R.P. Pfeiffer.
Honorary Chairmen: 1976-1986 L. van Stolk; 1993-present Mr. O.A. Thissen.
Deputy Chairmen: 1863-1871 M.M. de Monchy; 1872-1875 G.H. Mees; 1876-1880 G.A. de Bruyn; 1880-1881 H.J. Heeren; 1881-1882 P. Havelaar Jzn; 1882-1884 J.J. Bonke; 1884-1885 Mr. D.H. Delprat; 1885-1888 C.A.E. van Lede; 1888-1891 S.J.R. de Monchy; 1891-1892 B. van Stolk; 1892-1893 Mr. J.J.M. Taudin Chabot; 1893-1894 P.H. Driebeek; 1894-1896 Ed. Goossens; 1896-1898 W. Wijt; 1898-1900 E.P. de Monchy SJRzn; 1900-1901 Ed. Goossens; 1901-1904 J.B. Crol; 1904-1905 J.P. Schalkwijk; 1905-1907 J.B. Crol; 1907-1911 I.J. Havelaar; 1911-1912 J.P. Schalkwijk; 1912-1913 A.S. van den Bergh; 1913-1916 A.Ed. Dinger; 1916-1917 J.P. Schalkwijk; 1917-1920 Mr. W. Suermondt Lzn; 1920-1922 J.P. Schalkwijk; 1922-1923 Mr. W. Suermondt Lzn; 1923-1924 S. van Stolk; 1924-1926 J.J. Pit; 1926-1928 J. Rijpperda Wierdsma; 1928-1929 A. van Stolk; 1929-1931 G. Havelaar; 1931-1938 A.W. Hoete; 1938-1941 Dr. J. Siegenbeek van Heukelom; 1941-1948 D.G. van Hoytema; 1948-1950 D. Croll; 1950-1974 Jhr. P.R. Feith; 1997-1998 Dr. A.R. Helbing; 1998-present B.C. Bosselaar.

Secretaries: 1863-1872 G.H. Mees; 1872-1875 Dr. M. Denekamp; 1875-1878 Mr. D.H. Delprat; 1878-1879 R. Ledeboer; 1879-1881 C.M. Viruly; 1881-1884 Mr. W.P. Reepmaker; 1884-1887 Mr. L.H. Browne; 1887-1890 Mr. C.F.A. Hoogeweegen; 1890-1894 W. Wijt; 1894-1895 J.J. Pit; 1895-1899 J.P. Schalkwijk; 1899-1901 J.J. Pit; 1901-1904 J.P. Schalkwijk; 1904-1908 J.J. Pit; 1908-1911 J.P. Schalkwijk; 1911-1915 J.J. Pit; 1915-1931 G. Havelaar; 1931-1934 B.J. de Jongh; 1934-1937 Mr. J. Burgerhout; 1937-1941 E. Chabot; 1941-1948 L. van Stolk; 1948-1974 Mr. H.H. Nauta; 1974-1976 Mr. O.A. Thissen; 1976-1981 J.W. Roskamp (acting secretary); 1981-1988 W.J.A. Tjeenk Willink; 1988-1998 Dr. A.R. Helbing; 1998-present Mrs. F.Y.N. de Bakker-Kerstholt.
Treasurers: 1863-1875 P. Havelaar Jzn; 1875-1880 M.R.P. van Vollenhoven; 1880-1883 Mr. J.J.M. Taudin Chabot; 1883-1885 R.A. Mees Rzn; 1885-1889 W. Wijt; 1889-1891 M.A.G. van der Leeuw; 1891-1895 E.P. de Monchy Rzn; 1895-1899 Mr. G. Bicker Caarten; 1899-1902 R.A. Mees Mzn; 1902-1907 Ph. Mees; 1907-1908 J.P. Schalkwijk; 1908-1918 Ph. Mees; 1918-1919 J.P. Schalkwijk; 1919-1923 Ph. Mees; 1923-1924 J.P. Schalkwijk; 1924-1927 Ph. Mees; 1927-1929 M. Taudin Chabot; 1929-1932 C. van Lede; 1932-1934 Mr. J. Burgerhout; 1934-1956 Mr. N.J. van Aalst; 1956-1959 Mr. F.W. van den Berg; 1959-1971 R. Duin; 1971-1974 Mr. Ph.A.J. Mees; 1974-1997 J.W. Roskamp; 1997-2002 R.P. Eemsing; 2002-present J.V.M. Rijpkema.
Second Treasurers: 1876-1880 Mr. J.J.M. Taudin Chabot; 1880-1884 W. Wijt; 1884-1888 E.P. de Monchy Rzn; 1890-1893 L.A. Gleichman; 1893-1896 F. Grausberg; 1896-1897 A.A. Hoos; 1897-1899 Ed. Goossens; 1899-1902 G. van Stolk Gzn; 1902-1905 M. van der Lugt; 1905-1909 F.J.A.M. van der Ven; 1909-1913 P.L.M. Gilissen; 1913-1918 F.A.M. van der Ven; 1918-1923 P.M.J. Gilissen; 1923-1924 P.M.N. de Kuyper; 1924-1926 J. van den Bergh; 1926-1928 P.M.N. de Kuyper; 1928-1930 A.R. Verbrugge; 1930-1934 B.J. de Jongh.
Members: (excluding those already mentioned as official): 1931-1934 G. Havelaar; 1934-1938 Dr. H.K. de Haas; 1934-1941 J. Rypperda Wierdsma; 1934-1937 E. Chabot; 1934-1948 Mrs. B. Hoyer-Wierdsma; 1937-1938 Mrs. S. Ruys-de Vries; 1937-1939 Mrs. T. Mees-Bouvin; 1937-1940 P.M.N. de Kuyper; 1937-1941 Mrs. E. Hoette-Münch; 1937-1946 Mr. J. Burgerhout; 1937-1947 Mrs. A.M. van Aalst-Scheltema; 1937-1953 Mrs. C.J. Hoetink-Meerkamp van Embden; 1937-1955 Mrs. A. Glazener-Schleicher; 1938-1939 R.J. Dijk; 1938-1941 Mrs. J.C. Oud-Fischer; 1938-1946 Mrs. L.M. van Schaardenburg-Pot; 1939-1941 Mrs. M. Mees-Everts; 1939-1945 F.L.D. Nivard; 1939-1950 Ir. D. Croll; 1940-1948 J.A. Stenfert-Kroese; 1941-1948 D.G. van Hoytema; 1942-1950 A.D. Erkelens; 1946-1953 Mr. J. Nyenbandring de Boer; 1947-1983 H.J. Valk; 1947-1956 J. Hasper; 1947-1953 Mrs. A.D.E.L. Mees-Wijtema; 1948-1954 Mrs. J. Eijken Sluijters-Tresling; 1950-1955 C.A.J. Kuyl; 1950-1966 Dr. H.J. Eykman; 1950-1967 Dr. I.J. Havelaar; 1954-1964 Mrs. M. Pieters-Van Alphen; 1955-1968 Mrs. J. van Schaardenburg-Diemer Kool; 1954-1956 Mr. F.W. van den Berg; 1956-1983 Ir. H.M.A. van Berkel; 1966-1974 Mr. O.A. Thissen; 1973-1980 F. Boogaert 't Hooft; 1973-1984 J.M.A. Sondag; 1973-1998 Mr. J.J.M. van Benthem; 1974-1980 Ph.A.J. Mees; 1981-1982 Mr. R.P. Pfeiffer; 1981-1988 Mr. P.A. Nouwen; 1981-1996 Mrs. D.J.C. Semeyns de Vries van Doesburgh-Wesseling; 1982-1986 Mr. R.P. Voogd; 1987-present Mr. R.P. Pfeiffer; 1988-1994 Prof. D. de Wied; 1988-1994 Prof. E. Borst-Eilers; 1988-1995 M.J. Muller; 1994-1996 Prof. H.G.M. Rigter; 1996-1998 B.C. Bosselaar; 1996-2000 Rev. W. Hudig-Semeyns de Vries van Doesburgh; 1997-1998 Mrs. F.Y.N. de Bakker-Kerstholt; 1998-present Prof. S.P. Verloove-Vanhorick; 1999-present J.A.M. Nelissen; 2000-present Mrs. M. Opstelten-Dutilh LLM.
Honorary Members: 1941-1947 Dr. G.H. Moll van Charante; 1948-1966 J.A. Stenfert Kroese; 1988-2001 W.J.A. Tjeenk Willink.

THE SCIENTIFIC ADVISORY BOARD (SSWO)
Pediatrics: 1973-1985 Prof. O. Wolf (London); 1985-1990 Prof. J. Barratt (London); 1990-1993 Prof. D. Hull (Nottingham); 1994-1999 Prof. K. Raivio (Helsinki); 1999-present Prof. D. Grand (Boston).
Pediatric Surgery: 1973-1983 Prof. P. Rickham (Zürich); 1983-1986 Prof. L. Spitz (London); 1986-1991 Prof. M. Rowe (Pittsburgh); 1991-1994 Prof. P.K. Donahoe (Boston); 1994-present Prof. J.M. Hutson (Melbourne).
Child and Adolescent Psychiatry: 1973-1984 Prof. A. Solnit (New Haven, USA); 1984-1989 Prof. Schowalter (New Haven, USA); 1989-1994 Prof. J.F. Leckman (New Haven, USA); 1994-1999 Prof. F. Volkmar (New Haven, USA); 1999-present Prof. T. Moffitt (London).

Dutch Pre-clinicians: 1973-1981 Prof. D. Wied (Utrecht); 1982-1986 Prof. J. Boeles (Amsterdam, UVA); 1986-1991 Prof. R. Reneman (Maastricht); 1991-1996 Prof. G. Elzinga (Bilthoven); 1997-present Prof. H. Rigter (Utrecht).
Dutch / Belgian Clinicians: 1973-1982 Prof. J.N. Homan van der Heyde (Groningen); 1983-1988 Prof. T. van Leeuwen (Amsterdam); 1988-1993 Prof. J. van der Meer (Amsterdam); 1993-1998 Prof. H. Obertop (Amsterdam); 1998-1999 Prof. H. Ten Cate (Amsterdam); 1999-1999 Prof. J. Stoelinga (Nijmegen); 2000-present Prof. Y. Vandenplas (Brussel).

MEMBERS AND ADVISORS OF THE BUILDING COMMITTEE SOPHIA CHILDREN'S HOSPITAL
J. Barendregt (chairman); Ir. W. van Blaricum; J.M. Eekel; C. Hoogendoorn; Ir. R.R. Keijser; Ir. A.P.J.V.A. Maaskant; Prof. J.C. Molenaar; N.C. van Riemsdijk; Prof. P.J.J. Sauer; Ir. W.F. Staargaard; Mr. O.A. Thissen; Dr. Ir. I.P. Thonus; J. Tsang; C.P. Verhage; Prof. H.K.A. Visser; Ir. J.E.B. Wittermans; T.P.M. van der Zanden; P. Naayen (secretary).

THE BOARD (1863-1990) OF THE SOPHIA CHILDREN'S HOSPITAL AND THE BOARD OF DIRECTORS AND THE SUPERVISORY BOARD (1990-PRESENT) OF THE UNIVERSITY HOSPITAL ROTTERDAM / ERASMUS MC
Medical directors: 1863-1901 Dr. H.W. de Monchy, medical director; 1901-1905 Dr. H.W. de Monchy, director; 1905-1906 Dr. J. van der Hoeven, medical director; 1906-1907 Dr. A. Schuld, medical director; 1908-1932 Dr. L.B. de Monchy, medical director; 1933-1936 Dr. J. Siegenbeek van Heukelom, medical director; 1936-1947 H. van Ree, director; 1947-1966 H. Reerink, medical director; 1966-1967 J.J. Pieterse, temporary medical director; 1967-1972 Prof. H.K.A. Visser, medical director; 1972-1979 D. Vervat (medical director University Hospital Rotterdam); 1980-1985 H. van Giffen (medical director Sophia Children's Hospital); 1985-1992 C.F.J. Minderop (medical director, from 1990 under Dr. P.A.E. Sillevis Smit, Board of Directors Patient Care); 1993-1995 Mrs. G.F.P.M. Davits (medical director, in 1995 Board of Directors Patient Care; the function medical director was then abolished).
Nursing (assistant) directors: 1863-1865 Wed. Van der Hoop-Meystré (warden); 1863-1865 A.S. van Hengevelt (head nurse); 1865-1867 P. Maandag (head nurse); 1867-1874 P. Maandag (director); 1875-1881 C.M. Vorstman; 1881-1884 A.J.W. Ploem; 1884-1885 M.A.D. Baronesse van Heeckeren-van Walien; 1885-1895 H.C.S. Simon van der Aa-van Marselis Hartsinck; 1895-1897 A.H.A. Ittman; 1897-1904 H.C.S. Simon van der Aa-van Marselis Hartsinck; 1904-1929 E. Brown; 1929-1938 E.C. Schmidt; 1938-1950 L.H. van der Sleen (assistant director); 1950-1953 A. Binnendijk; 1953-1966 R.M. van den Berg; 1966-1967 H.V. Dorgelo (acting); 1967-1978 J.A. van de Stadt; 1979-1999 C.P. Breugem (between 1990-1996 under the Board of Directors Patient Care, 1996-1999 as staff director Care Support and Nursing; afterwards the position was abolished).
Nursing directors Seaside Hospice: 1888-1892 H.C.S. Simon van der Aa-van Marselis Hartsinck; 1892 B. Schilthuis; 1892 E. Remy; 1892-1895 Meyboom-Champury; 1895 S. Kruseman; 1895-1904 H.C.S. Simon van der Aa-van Marselis Hartsinck; 1904-1918 T. Borcherts; 1918-1934 J.M. van Rijn; 1934-1943 L.E. van der Ham.
Economic directors: 1965-1979 C. de Jong, economic director; 1979-1980 J.A.M. van Kleef; 1980-1990 C. Hoogendoorn (afterwards the local directorate was abolished).
General director: 1975-1980 Mr. H.P. Ruinen.
Chairmen Board of Directors University Hospital Rotterdam (AZR) / Erasmus MC: 1990-1995 J. Barendregt; 1995-1998 Dr. J. Braaksma; 1998-2000 L.M.J.L. Lodewick (temporary); 2000-present Prof. M.H. Meijerink.
Chairmen of the (Supervisory) Board University Hospital Rotterdam (AZR) / Erasmus MC: 1967-1969 Ir. J.A.C. Tillema (acting); 1969-1975 Dr. J.G. Kerkhof; 1975-1988 G.Z. de Vos; 1988-1990 Dr. K.G. van Senden (deputy chairman); 1990-1990 Mr. W.A. Tiedemann; 1999-present Mr. J. Schraven.

THE MEDICAL STAFF OF THE SOPHIA CHILDREN'S HOSPITAL

A. The period 1863-1966

See chapter 5 for the names of those specialists who acted as consultants in this period. **Pediatrics:** 1863-1900 Dr. H.W. de Monchy; 1900-1907 Dr. A. Bakhuysen Schuld; 1907-1932 Dr. L.B. de Monchy; 1933-1936 Dr. J. Siegenbeek van Heukelom; 1937-1948 Dr. F.M.C. Hengeveld; 1937-1948 Mrs. dr. A. van Westrienen; 1948-1966 H. Reerink; 1948-1966 Mevr.dr. T.A.E. Janssen; 1954-(1966) J.J. Pieterse; 1957-1966 Mrs. E.E. [Reerink-]Brongers; 1961-1963 Mrs. E.G. Jansen. **Seaside Hospice:** 1888-1903 Dr. J.H. Perk; 1903-1911 Dr. H. Mulder; 1911-1912 Dr. L.D. Ornstein; 1912-1918 Dr. A.Th. Snijder; 1918-1943 Dr. H.A.N. Vechtman. **Outpatient department pediatrics:** 1875-1899 Dr. M. Denekamp; 1899-1906 Dr. A. Bakhuysen Schuld; 1906-1907 Dr. L.B. de Monchy; 1907-1919 Dr. J. Siegenbeek van Heukelom; 1918-1925 Dr. B. Quispel; 1919-1937 Dr. A.F. van Westrienen; 1925-1932 Dr. L.B. de Monchy. **Pediatric surgery:** 1863-1890 Dr. J. van der Hoeven Sr.; 1890-1906 Dr. J. van der Hoeven Jr.; 1906-1920 Dr. C.D. van Rossem; 1920-1949 Dr. H.J. Boevé; 1949-(1966) Dr. D. Vervat. **Outpatient department pediatric surgery:** 1883-1889 Dr. C.P. Burger; 1913-1920 Dr. H.J. Boevé; 1960-(1966) Dr. J.A. Noordijk. **Orthopedics:** 1921-1938 Dr. Th.A. Jagerink; 1939-1941 M.L. Beerman; 1941-1965 Dr. J.H. ten Kate. **Otorhinolaryngology:** 1937-1964 Dr. P. de Haan; 1964-(1966) Dr. C.E. Bos. **Laboratory:** 1885-1891 Dr. W. Nolen; 1891-1916 Dr. A. Bakhuysen Schuld; 1906-1937 Dr. J. Siegenbeek van Heukelom (exclusively from 1919). **Biochemical / clinical-chemical laboratory:** 1949-1957 Dr. J.K. Bottema; 1957-1960 Dr. H. Schouten; 1960-(1966) Dr. E. Ben-Gershôm. **Pathological anatomy:** (1920)-1937 Dr. E.C. van Rijssel; 1938-1958 Dr. M. Straub (1940 appointed to prosector); 1958-(1966) Dr. C.B.F. Daamen. **Dispensary:** 1964-(1966) J.I. Cohen.

B. The period 1966-present

The chronologically ordered list of names is restricted to professors who worked or work in the Sophia Children's Hospital. See chapter 6 for the names of the other specialists. Titles (Prof.) have been omitted, and no distinctions are made between lecturers (until 1980) and professors, nor between professors -A and -B. In case of extraordinary chairs, the name of the funding organization is cited between brackets.

1966-1995 H.K.A. Visser: pediatrics; 1969-1973 D. Vervat: pediatric surgery; 1969-1974 D.J. de Levita: child psychiatry; 1969-1978 J. Fernandes: pediatrics; 1970-1994 K.F. Kerrebijn: pediatrics, esp. respiratory diseases in children (Dutch Asthma Fund 1970-1981); 1972-1975 C.J.G.C.A. Cornil: urology, with a special assignment of child urology; 1974-1986 Jhr. V.H. de Villeneuve: child cardiology; 1974-1987 J.A.R. Sanders-Woudstra: child and adolescent psychiatry; 1976-1978 J.L. van den Brande: pediatrics, esp. endocrinology in childhood; 1976-1997 J.C. Molenaar: pediatric surgery (SSWO 1976-1990); 1977-1986 E. Bos: pediatric cardiac surgery (Foundation Funds Medical Faculty); 1979-1993 R.J. Scholtmeijer: child urology; 1980-1984 J.W. Mettau: pediatrics, esp. neonatology; 1980-1997 H.J. Degenhart: chemical endocrinology and childhood disease (SSWO); 1981-1986 C.J. de Groot: general pediatrics, esp. hereditary metabolic disease; 1986-1997 P.J.J. Sauer: pediatrics, esp. neonatology; 1986-2004 H.J. Neijens: pediatrics, esp. neonatology; 1987-1990 J.M. Quaegebeur: pediatric cardiac surgery (SSWO); 1987-1997 J. Hess: child cardiology; 1987-present F.C. Verhulst: child and adolescent psychiatry; 1990-1998 M. Meradji: child röntgen diagnostics (SSWO); 1993-present D. Tibboel: experimental pediatric surgery (SSWO); 1994-present S.L.S. Drop: child endocrinology (SSWO); 1994-present F. Verheij: child and adolescent psychiatry (AZR); 1995-present H.A. Büller: pediatrics; 1995-present A.J.J.C. Bogers: pediatric cardiac surgery (SSWO); 1996-present J.C. de Jongste: pediatrics, esp. child lung diseases (Nederlands Asthma Fund); 1997-present W.F.M. Arts: child neurology (SSWO); 1998-present F.W.J. Hazebroek: pediatric surgery; 1998-present R. de Groot: pediatrics, esp. infectious diseases and their effects on immunity (Foundation Trust Fund EUR); 1999-2001 J.N. van den Anker: pediatrics, esp. neonatology; 2000-present G.J. Bruining: diabetes in pediatrics (Diabetes Foundation Netherlands); 2000-2001 J.H. Koot: developmental psychopathology (Foundation Trust Fund EUR); 2000-present R. Pieters: child oncology (Foundation Trust Fund EUR); 2001-present A.J. van der Heijden: pediatrics (nephrology); 2001-present W.A. Helbing: child cardiology; 2003-present J.B. van Goudoever: neonatology.

LIST OF PHD THESES IN THE PEDIATRIC DISCIPLINES (1969-2004)

Included in this chronological list are all PhD theses defended in the Medical Faculty Rotterdam, the Faculty of Medicine (and Health Sciences) of the Erasmus University Rotterdam and the Erasmus MC, for which a professor directly or indirectly (as head of department of the University Hospital) connected to the Sophia Children's Hospital acted as first or second supervisor. The name(s) of the supervisor(s) is/are cited between brackets. Titles of professors have been omitted.

1969: A. Heyl, Een onderzoek bij patiënten met de ziekte van Hirschsprung, in het bijzonder naar de resultaten van de operatieve behandeling (H. Muller). **1970:** H.G. Scholten, Urolithiasis bij kinderen: een studie over 110 kinderen met steenvorming in de urinewegen (N.J. Bakker). **1973:** J.V.L. van den Brande, Plasma somatomedin: studies on some of its characteristics and on its relationship with growth hormone (H.K.A. Visser); J.K.R.A.C. van Walleghem, Oesophagusatresie (H. Muller). **1974:** Ms. H.E. Zoethout, De invloed van coarctatio aortae op de nier bij kinderen (H.K.A. Visser). **1975:** P.Ph. Forget, Aspects of plasma triglyceride metabolism in children (J. Fernandes). **1977:** H.E. Falke, Studies on isolated rat adrenal cells (H.K.A. Visser); P.W. de Haas, De ontwikkeling en toepassing van een zuurstofelectrode voor het continu meten van de intra-arteriele zuurstofspanning bij pasgeborenen met ademhalingsproblemen (H.K.A. Visser). **1978:** Ms. E.R. van Wering, Growth and development of children on Aruba in 1974 (H.K.A. Visser); R.J. Kraaipoel, Studies on cholesterol side-chain cleavage in adrenal cortex mitochondria: proposal of a new mechanism (H.K.A. Visser); J.W. Mettau, Measurement of total body fat in low birth weight infants (H.K.A. Visser). **1979:** E.R. Boersma, Perinatal circumstances in Dar es Salaam, Tanzania: studies on some physiological aspects in the tropics (H.K.A. Visser). **1980:** J.D. Meeuwis, Free ileal autograft as a substitute for the thoracic oesophagus: an experimental study in adult dogs and puppies (J.C. Molenaar); Ms. J.J.M. van Collenburg, Aspecten van (gescheiden) nierfunctieonderzoek bij kinderen (H.K.A. Visser and G. Hennemann); R.K.B. Schuurman, Membrane characteristics and functional analysis of human T and B lymphocytes: a contributions to the analysis of immunodeficiency in children (H.K.A. Visser and J.J. van Rood). **1981:** Mrs. G. Derksen-Lubsen, Screening for congenital hypothyroidism in the Netherlands (H.K.A. Visser and G.A. de Jonge); H.N. Lafeber, Experimental intra-uterine growth retardation in the guinea pig (H.K.A. Visser and W.C. Hülsmann); H.J. Neijens, Bronchial responsiveness in children (K.F. Kerrebijn); D.M.J. De Raeymaecker, The ego under observation: childpsychiatric study of 40 three year old low birthweight children and 40 three year old full term and normal birthweight children (Mrs. J.A.R. Sanders-Woudstra); K.J. Brouwer, Torsional deformities after fractures of the femoral shaft in childhood: a retrospective study, 27-32 years after trauma (J.C. Molenaar and A. Huson). **1982:** P.J.J. Sauer, Aspecten van de energiehuishouding van kinderen met laag geboortegewicht (H.K.A. Visser); J.J. Pieterse, Kindermishandeling in het gezin (H.K.A. Visser and Mrs. J.A.R. Sanders-Woudstra); J.E. de Vries, Development and adaptation to resection of infant rat gut (D.L. Westbroek and J.C. Molenaar); J.C.N. da Cunha Areias, Pulsed Doppler echocardiographic evaluation of the blood stream in children with morphological heart lesions (V.H. de Villeneuve and S.J. Goldberg). **1983:** W.P.F. Fetter, Transcutane meting van de zuurstofspanning in de neonatologie (H.K.A. Visser and J.W. Mettau); S.L.S. Drop, Isolation of a somatomedin binding protein from human preterm amniotic fluid: development of a radioimmunoassay (H.K.A. Visser and H.J. Guyda); Ms. F.M.E. Slijper, Genderrol gedrag bij meisjes met congenitale adrenogenitale hyperplasie (Mrs. J.A.R. Sanders-Woudstra and F. Verhage). **1984:** N.M.A. Bax, Orthotopic nonauxiliary allotransplantation of part of the liver in dogs (J.C. Molenaar and J. Jeekel); W. Baerts, Intracraniële bloedingen bij preterm geborenen: een echografische studie (J.W. Mettau and M. de Vlieger); G.J. Bruining, Studies on childhood diabetes mellitus (H.K.A. Visser and J.J. van Rood). **1985:** Mrs. M. van Caillie-Bertrand, The trace elements selenium, copper and zinc in pediatric practice (H.J. Degenhart and J. Fernandes); F.C. Verhulst, Mental health in Dutch children: an epidemiological study (Mrs. J.A.R. Sanders-Woudstra and H.A. Valkenburg); E.J. Duiverman, Lung function and bronchial responsiveness in preschool children (K.F. Kerrebijn); R.B. Minderaa, Neurochemical aspects of childhood autism (Mrs. J.A.R. Sanders-Woudstra and D.J. Cohen). **1986:** Ms. C.E. de Beaufort, Continuous subcutaneous insulin infusion in newly diagnosed diabetic children

(H.K.A. Visser); F. Verheij, Klinische kinderpsychiatrie en het cognitief-structurele ontwikkelingsmodel (Mrs. J.A.R. Sanders-Woudstra and R. van Strik). **1987:** M.H. de Keijzer, Hypertension after allogeneic kidney transplantation in the rat (J.C. Molenaar and M.A.D.H. Schalekamp); F.W.J. Hazebroek, The treatment of cryptorchidism: why, how, when: clinical studies in prepuberal boys (J.C. Molenaar and H.K.A. Visser); Mrs. S.M.P.F. de Muinck Keizer-Schrama, The treatment of cryptorchidism: why, how, when: clinical studies in prepuberal boys (H.K.A. Visser and J.C. Molenaar); R.N. Sukhai, Obstructieve uropathie bij kinderen voorspellende waarde van 99m Tc-DTPA renografische studies verricht tijdens maximale diurese (R.J. Scholtmeijer and H.K.A. Visser); A.J. van der Heijden, Renal function in the preterm neonate and the newborn rabbit (P.J.J. Sauer and L.A.H. Monnens); J.C. de Jongste, Human airway smooth muscle (K.F. Kerrebijn and I.L. Bonta). **1988:** Ms. H.Th.M. Jongejan, Age-related differences in renal side-effects of radiation and chemotherapy in the rat (J.C. Molenaar). **1989:** J.G.M. Huijmans, Hydroxylated sterols: matabolism and effects on steroid production and steroid uptake (H.J. Degenhart and J.H.H. Thijssen); H.R. de Vries, Aflatoxins and child health in Kenya (H.K.A. Visser and R.G. Hendrickse); J.H.C. Meijers, Formation and malformation of the enteric nervous system (J.C. Molenaar and H. Galjaard); Ms. P.A. Stewart, Echocardiography in the human fetus (J.W. Wladimiroff and J. Hess); A.M. Horrevorts, The Pseudomonas flora and tobramycin pharmacokinetics in patients with cystic fibrosis (M.F. Michel and K.F. Kerrebijn). **1990:** K. Hählen, Cranial computer assisted tomography and electroencephalography in children with acute lymphocytic leukemia: a longitudinal study (M. de Vlieger); Mrs. W.C.G. Overweg-Plandsoen, Anterior fontanelle pressure monitoring in infants (C.J.J. Avezaat). **1991:** J.W. Hoekstra, Urogenital tract anomalies in children with congenital anorectal malformations (R.J. Scholtmeijer J.C. Molenaar); J.G. Blickman, Pediatric urinary tract infection: imaging techniques with special reference to voiding cystoerethrography (R.J. Scholtmeijer and M. Meradji); O.F.W. Stumper, Pediatric transesophageal echocardiography (J. Hess and J.R.T.C. Roelandt); R.C. Jongejan, Responsiveness of isolated human airways: modulation by inflammatory cells, mediators and physical stimuli (K.F. Kerrebijn); R. de Groot, Antibiotic resistance in Haemophilus influenzae (H.J. Neijens and A.L. Smith). **1992:** W.B. Gunning, A controlled trial of clonidine in hyperkinetic children (F.C. Verhulst and R.B. Minderaa); G.F.M.G. Berden, De ontwikkeling en toepassing van een levensgebeurtenissenvragenlijst en van een levensgebeurtenisseninterview (F.C. Verhulst and R. Giel); M. Witsenburg, Balloon dilatation for treatment of obstructive cardiovascular lesions in children (J. Hess); Mrs. N. 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Archival sources and literature

Archival sources: Until today, there is no organized archive of the first century of the (Sophia) Children's Hospital's history. An incomplete series of minute books, a handful of documents, some floor plans and several administrative files from the 1960s form the poor archival inheritance. The collections of the Municipal Archives Rotterdam contain complementary documentation, such as the documents of the Van der Hoeven family archive and the rich collection of newspaper cuttings, accessible via keywords. For the period after 1965, use has been made of the annual reports of the Sophia Children's Hospital, the medical faculty (Medical Faculty Rotterdam, Erasmus University Rotterdam, and Erasmus MC respectively) and the University Hospital Rotterdam. Prof. H.K.A. Visser granted me the use of many important documents, reports and accounts from his substantial personal archive.

Literature: The annual reports, both from the (Sophia) Children's Hospital and the University Hospital Rotterdam respectively, and from the Rotterdam Foundation for the Protection of Infants (1910-1946) and the Infant Clinic respectively (1917-1934), are the most important serial sources, together with the internal magazine of the University Hospital Rotterdam, issued on a monthly basis since 1971. Entitled *Monitor*, it contains many interviews and commentaries concerning life and work in the Sophia Children's Hospital. The **history of the Sophia Children's Hospital** has been described separately by H.W. de Monchy, *Het Kinder-Ziekenhuis te Rotterdam* (Rotterdam 1864); S. Bezeth, Het Kinderziekenhuis te Rotterdam, *Rotterdammer Courant* 13 june 1864 and *Nieuwe Rotterdammer Courant* 15 june 1864; G.D.L. Huet, Het Kinder-Ziekenhuis te Rotterdam, *Nederlandsch tijdschrift voor geneeskunde* 8 (1864) 353-354; W. de Bruijn, Iets over het Sophia Kinderziekenhuis te Rotterdam, *Wereldkroniek* (1895) 1 and 4-6; N.H. Wolf, Bij het veertigjarig bestaan van het Sophia-Kinderziekenhuis te Rotterdam, *Wereldkroniek* (1903) 641-642; H.C.H. Moquette, Het Sophia Kinderziekenhuis, in: *Rotterdam in de loop der eeuwen* (Rotterdam 1907) vol. 3, 338-341; Het Sophia-kinderziekenhuis te Rotterdam, *Geneeskundige courant* 57 (1903) nr. 24, 200-202; Het Sophia-kinderziekenhuis, *Rotterdamsch Weekblad* 5 (1903) nr. 36, 1-2, het *Jubileumverslag over 25 jaar van de Rotterdamsche Vereniging tot Bescherming van Zuigelingen* (z.pl. 1935), J.W. de Boer, *100 jaar Sophia Kinderziekenhuis* (Rotterdam 1963); M.J. van Lieburg, Het Sophia Kinderziekenhuis te Rotterdam 1863-1975 (Rotterdam 1975) and H. de Groot (comp.), *Het Academisch Ziekenhuis Rotterdam. Een beeldverslag van de geschiedenis van het Ziekenhuis Dijkzigt en het Sophia Kinderziekenhuis die, sinds 1 mei 1971, samen het Academisch Ziekenhuis Rotterdam vormen* (Alphen aan den Rijn-Brussel 1981). The **history of medical education in Rotterdam** has been described by H.J. Flieringa, *De geschiedenis van de Stichting Klinisch Hoger Onderwijs te Rotterdam 1950-1967* (Rotterdam z.j.); J.M.W. Binneveld and H.H. Vleesenbeek, *Medische Faculteit Rotterdam. Analyse van een experiment* (Leiden 1976) and M.J. van Lieburg, *Vijf eeuwen medisch onderwijs, onderzoek en patiëntenzorg in Rotterdam. Het Erasmus MC in historisch perspectief* (Rotterdam

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Of the various studies of individual hospitals and medical institutions, the following should be mentioned in connection to the historiography of the Sophia Children's Hospital: *Adriaanstichting 1912-1977. De geschiedenis van de zorg voor het lichamelijk gehandicapte kind te Rotterdam* (Rotterdam 1978); *Het Coolsingelziekenhuis te Rotterdam (1839-1900). De ontwikkeling van een stedelijk ziekenhuis in de negentiende eeuw* (Amsterdam 1986); *De geschiedenis van de Gemeentelijke Geneeskundige Dienst te Rotterdam, 1919-1994* (Rotterdam 1994) and *Een eeuw thuiszorg in Rotterdam 1901-2001* (Rotterdam 2001). In the last, extensive attention is paid to the Nurses' Association of the Sophia Children's Hospital. For the **history of pediatrics**, besides the well-known hand- and textbooks such as those by I. Abt en F.H. Garrison, *History of pediatrics* (reprint Philadelphia 1965) and A. Peiper, *Chronik der Kinderheilkunde* (Leipzig 1958) and, for the history of child psychiatry, L. Kanner, *A history of the care and study of the mentally retarded* (Springfield 1967), use has been made in particular of studies concerning developments in the Netherlands, such as D.L. van Wely, De kinderziekenhuizen en herstellingsoorden voor zieke kinderen, in: C. Alers e.a., *De ziekenverpleging en de zorg voor de openbare gezondheid in de laatste 50 jaren* (Amsterdam 1899) 35-39; *De ontwikkeling van de kindergeneeskunde in de afgelopen 50 jaar. Ned. Ver. voor Kindergeneeskunde* (Leiden 1942); C. de Lange, Terugblik, *Maandschrift voor kindergeneeskunde* 15 (1947) 239-266; S. van Creveld, De ontwikkeling van de kindergeneeskunde in de laatste 75 jaren, *idem* 35 (1967) 109-124; J.H. Haas, 75 Jaar zuigelingensterfte, 1892-1967, *idem* 35 (1967) 184-202; A. de Knecht-van Eekelen, *Naar een rationele zuigelingenvoeding. Voedingsleer en kindergeneeskunde in Nederland (1840-1914)* (Nijmegen 1984); W. van Zeben (red.), *1892 – Nederlandsche Vereeniging voor Paediatrie –1982 Nederlandse Vereniging voor Kindergeneeskunde* (Alkmaar 1982) and the commemorative volumes of the children's hospitals: *Een eeuw Emma-Kinderziekenhuis, 1865-Amsterdam-1965* (Amsterdam 1965); Th. Wijsenbeek, *Zieke lieverdjes. 125 kinderzorg in het Emma Kinderziekenhuis* (Amsterdam 1990); *Gedenkboek Het Kinderziekenhuis te 's-Gravenhage 24 september 1885-1925* (Den Haag 1925); P.D. 't Hart, *Het zieke kind in goede handen. 100 jaar gezondheidszorg in het Wilhelmina Kinderziekenhuis* (Zwolle 1988) and *Van meet af aan. Honderd*

jaar bouwen aan kindergeneeskunde in Groningen (Groningen 1991). For the years 1866-1966, **medical developments in the Sophia Children's Hospital** have been described on the basis of specialist publications by the medical staff. The foremost authors, in alphabetical order, were: H.J. Boevé, M. Denekamp, P. de Haan, F.M.C. Hengeveld, J. van der Hoeven, Th.A. Jagerink, T. Janssen, H.W. de Monchy, L.B. de Monchy, J.H. Perk, B. Quispel, H. Reerink, C.D. van Rossem, A. Schuld, J. Siegenbeek van Heukelom, D. Vervat, and A.F.A.S. van Westrienen. Via the indices of the *Nederlandsch tijdschrift voor geneeskunde* and the *Maandschrift / Tijdschrift voor kindergeneeskunde* over 250 articles by these authors can be found. Worthy of mention is also the contribution of D. Vervat, De ontwikkeling van de chirurgie voor kinderen in het congresverslag van de Nederlandse vereniging tot bevordering der chirurgische wetenschappen (Nijmegen 1967) and the textbooks to which Anna van Westreenen (N.I. Heijbroek, A.F.A.S. van Westrienen e.a,.*Kinderziekten, voornamelijk met het oog op de behandeling* (Leiden-Amsterdam 1936 en 1937) and C. de Lange, A. van Westrienen, R.J. Harrenstein and J.C. Schippers, *Ziekteleer van den pasgeborene*, Amsterdam 1941) and H. Reerink (H. Reerink en W. van Zeben red., *Kindergeneeskunde,* Amsterdam 1964) contributed. Several publications by non-staff members deserve citation: A.M. Ballot, Karnemelk als voedsel voor kinderen beneden het jaar, *Nederlandsch tijdschrift voor geneeskunde* 1 (1865) I, 402-416 and Karnemelk als voedsel voor kinderen, *ibidem* 5 (1870) I, 115-120; B.P.B. Plantenga, Kindersterfte en zuigelingenklinieken, *idem* 38 (1902) 922-928; E. Texeira de Mattos, Over de oprichting en inrichting van een zuigelingenkliniek in Nederland, in: *Herinneringsbundel Professor S.S. Rosenstein* (Leiden 1902) 597-621 and idem, Over bescherming en verpleging van jonggeborenen (Rotterdam 1902); Bast, *Iets over herstellingsoorden voor kinderen* (Rotterdam 1905); J.H.G. Carstens, Consultatiebureaux voor zuigelingen en melkkeukens, *Nederlandsch tijdschrift voor geneeskunde* 66 (1922) II, 1859-1867; G.H. Moll van Charante, *Melk en melkvoorziening van een groote stad* (Rotterdam 1925).

For **recent medical developments** particular use has been made of inaugurals and valedictories held over the years by the Sophia Children's Hospital's professors, most of all of the extensively annotated valedictory of Prof. Visser (*Wat Jantje is, zal Jan worden*, Rotterdam 1995), and also of the occasional publications marking the departure of Prof. Sanders-Woudstra (J.E. de Boer e.a., *Kinderpsychiatrie in perspectief; afscheidssymposium van Prof. J.A.R. Sanders-Woudstra,* Tilburg 1988), Prof. Kerrebijn (J.C. de Jongste e.a., *Putting the pieces together*, Rotterdam 1994), and Prof. Molenaar (A.P. Provoost en J. Hagoort, *From Fata Morgana to Reality. Twenty years of research in pediatric surgery*, Rotterdam 1997). The appendix with Sophia Children's Hospital PhD theses has been taken from B.F. Been and Y.Th. Aberson-Kap (comp.), *Een kwart eeuw medische Lauweren aan de Maas. Bibliografie van proefschriften, oraties, afscheidsredes en eredoctoraten aan de Faculteit der Geneeskunde en Gezondheidswetenschappen Erasmus Universiteit Rotterdam sedert de oprichting van de Medische Faculteit in 1966* (Rotterdam 1992) and additions offered by B.F. Been (Erasmus MC Medical Library).

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