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Chirurgijns in den vreemde: de geneeskundige zorg van de Verenigde Oost-Indische Compagnie (VOC) voor haar personeel in Azië

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Citation
Zwaard, A. M. (2025, January 21). *Chirurgijns in den vreemde: de geneeskundige zorg van de Verenigde Oost-Indische Compagnie (VOC) voor haar personeel in Azië*. Retrieved from https://hdl.handle.net/1887/4177178

Version:	Publisher's Version
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Downloaded from:	https://hdl.handle.net/1887/4177178

Note: To cite this publication please use the final published version (if applicable).

Summary

The introductory part of this study on health care by the Dutch East India Company (VOC) in Asia describes what is known so far about the medical service of the VOC. Surgeons were employed in the Netherlands to work on ships and in overseas settlements. They were Dutch surgeons or surgeons who came from one of the German states or Scandinavia. They were trained in the European civil society in guilds and in order to enter service with the VOC they had to pass an exam, the so-called sea-exam. It was not an easy exam and it was not a given that a surgeon would pass it. A moderately passed exam could result in the candidate being hired into a lower position.

Once accepted as a ship surgeon, the journey to Asia could begin. After arriving in one of the Asian settlements, some of the surgeons continued to work in one of the many medical posts ashore or on one of the ships of the intra-Asian voyage. About half of the surgeons who left the Netherlands for Asia already returned to the Netherlands after the initial employment of at most three years.

The first chapter describes the composition of the VOC's medical service in Asia. Although there were several professionals within that medical service, such as surgeons, pharmacists, laboratory technicians, botanists, hospitaliers and medicine writers, the focus of this study is on surgeons and pharmacists, their activities and their origins. Not only because they played the most important role in patient care but also because in terms of numbers, they made up the vast majority of health care professionals. In contrast to the large number of surgeons employed by the VOC, the number of university-trained medicinae doctores was small. They played a role in the background, such as in administrative bodies, but were not involved in daily patient care. Surgeons and apothecaries who came from one of the local VOC settlements and whose one or both parents were of European descent were called *inlandse* surgeons or apothecaries. They have not been described before. Indigenous physicians, physicians from the native population, played no significant role in the treatment of VOC servants: VOC servants received medical care from VOC surgeons.

This chapter then discusses how and where they were recruited and trained, what their origins were and what careers they went through. When looking at where surgeons were recruited, it is strongly related to whether or not they first had to be trained as a surgeon. Surgeons recruited in the Netherlands had already received training in civilian society and passed an exam in order to be hired as VOC surgeons, the so calles *sea exam*. If prospective surgeons were recruited in Asia, they had to undergo training as a surgeon overthere. This last group of surgeons, not previously described in the literature, could have consisted of European VOC servants from the militia or shipping, or they were local European descendants. A key finding of this study is that less than half of all surgeons working in Asia had been trained in Europe and traveled to Asia as surgeons. Many had been trained locally and recruited from the militia or were descendants of local VOC servants. What is striking about surgeon training in Asian VOC settlements is that it took place in hospitals. This hospital medicine and *bedside teaching* were unheard of in the Netherlands at that time.

This study features some qualified surgeons who tried their luck and traveled to Asia on the off chance in the hope of working there as surgeons. What was previously suspected, that there

were European surgeons who sailed to Asia as soldiers hoping to pursue a career as a surgeon there, could be demonstrated in this study. This was inferred from a number of non-common promotions, albeit after examination, from soldier to sub-surgeon. They made up only a smaller part of the of entire professional group of surgeons.

This chapter is also about who the VOC surgeons and pharmacists were and what careers they went through, or what did their careers look like. Archives provide information about their transfers, promotions and the development of their wages. Careers could be reconstructed by combining information from multiple sources. An important finding is that it was surgeons from Northern Europe who held the leadership positions and rose to the highest positions within the medical service organization. They were also responsible for training apprentice surgeons. The surgeons who advanced from the medical service to the highest administrative positions within the VOC organization were exclusively Dutch. A similar picture can be seen with pharmacists, albeit that in Colombo many pharmacists were locally sourced and trained locally. In Batavia the pharmacists came mainly from Europe.

The second chapter describes the cost and organization of medical care. The cost of medical facilities weighed on the budget of the respective trading posts and was closely monitored from the Netherlands. In absolute terms, the costs of medicines and manpower were small compared to the VOC's trade flows. But the fact that the VOC nevertheless kept a close eye on these costs is a clear indication that the VOC was a trading company 'watching the small stuff'. Personnel capital was an important capital for the VOC.

Disability was a loss in the financial sense, but also in the human sense, in terms of employability. Hospitalization meant reduced deployment of this human capital. Permanent incapacity, often in the form of disability, meant repatriation to the homeland. Many return sailings had incapacitated persons on board who repatriated. Surveys of conditions of hospitalized patients reveal non-infectious conditions as a major reason for disability.

From smaller medical posts, patients could be transferred to larger posts or hospitals. There was more expertise or better facilities available to care for patients. A pattern of echelonization is recognizable here. Another aspect of the organization of care relates to the isolation of high-risk patients. Population surveys were set up to detect infectious leprosy patients who were then admitted to, or perhaps more accurately exiled to, leper hospitals. In many of its settlements leper hospitals existed and segregation of leprosy patients was mandatory. In addition, we see that in the eighteenth century attention arose in the larger hospitals to separate infectious patients from non-infectious patients, a form of organization of medical care. But psychiatric patients were also separated from other patients; they were usually confined. Still, sometimes they tried treatment, but if the condition persisted then repatriation followed.

Important sources for researching the distribution and construction of facilities consist of floor plans and maps of VOC settlements. Maps of many settlements have survived and revealed that medical facilities existed even in the smallest forts or paggers, lodges and other smaller settlements. But the quality of these facilities often left much to be desired. In peripheral settlements in particular, hospitals were sometimes dilapidated or on the verge of collapse before action was taken to remodel or build entirely new ones. Here economic considerations will have played an important role.

During the eighteenth century, awareness of ventilation and healthy air emerged in hospitals. The VOC's master builders were in contact with Amsterdam architects. International insights regarding ventilation and infection possibilities did not pass by the VOC's master builders.

The third chapter deals with the supply of medicines to the Asian VOC settlements. First, the bottlenecks that played a role in transport from the Netherlands are discussed. Many shipments of medicines were lost on their journey from the Netherlands due to spoilage, loss, breakage and sometimes shipwreck. The poor quality of packaging, long trips and unfavorable climatic conditions on their way to Asia were to blame. Heeren XVII constantly ran into these kinds of problems during the seventeenth and eighteenth centuries and one could not find structural solutions to them. This was the main reason why there were constant requests from the Netherlands to obtain medicines or ingredients for them from the settlements themselves. An important difference with the Spaniards and the Portuguese was that the Dutch lacked a network of religious orders that laid the basis for the development of knowledge about local remedies and availability of medicines with them.

Relative to the total costs of an establishment, drug costs were modest. But this did not diminish the importance of a good supply of medicines. Also, it was not always cheaper to purchase ingredients for drugs on local markets, which is why supply from the Netherlands remained necessary. Another factor was that ingredients needed to prepare drugs from were not always available locally. Both local higher costs and limited local availability of sufficiently large quantities of drugs were the main reason why supply from the Netherlands remained necessary until the end.

Ready-made medicines or ingredients for them arrived from the Netherlands in Batavia and in Colombo. Some Asian branches also supplied ingredients for medicines. From Batavia the settlements were then supplied with medicines. From the very beginning of the presence of the VOC in Asia, an apothecary was employed in Batavia. Later we also see an apothecary in Colombo and the governorate Ceylon was supplied from there. Batavia remained the center of medicine supply for the other settlements. What medicines and how many were needed in the branches were communicated in their annual orders to Batavia. From here the orders were sent to Holland in the form of a *general demand*.

Cargo lists from intra-Asian shipping show that ingredients for medicines were sent to Batavia from Surat, Gamron and Hougly. But it was not always cheaper to buy those medicines or ingredients in local markets. Supplies from the Netherlands remained necessary until the last. The role of the other settlements was limited in this supply of medicines.

Ceylon plays a special role in the supply of medicines. Not only were many ingredients for medicines available in Ceylon, but the enormous diversity of flora and fauna attracted many botanists from Europe to the island. There were collaborations with the universities of Leiden and Amsterdam. Yet Ceylon did not become the center of medicine supply in Asia. Possibly political factors played a role in this and Batavia did not want to give up its central role.

The role of botanical science cannot be unmentioned here. This science underwent an unprecedented development and was initiated by the Portuguese as early as the sixteenth century. It was generally believed that the work of botanists played a role in the supply of medicines to the VOC. This study reveals that a few prominent botanists, who generally remained in the service

of the VOC for only a few years, played an especially large role in the development of botany as a science in the Netherlands and Europe. This study has shown no appreciable benefit of that development for the medicine supply of VOC settlements in Asia. As mentioned, the supply of medicines from the Netherlands remained indispensable until the end of the VOC's presence in Asia.

Not only the lack of religious networks, as the Portuguese and Spanish had, but also personal factors of surgeons were a major obstacle to adequate knowledge exchange on medicines from the periphery to Batavia. Surgeons often died shortly after joining the service or they were transferred after several years, resulting in the loss of local knowledge. Personal factors, such as unwillingness to share knowledge, were also reasons why information from the periphery did not reach Batavia. People did not get involved with locally available medicines because they stuck to the Amsterdam pharmacopoeia. Personal prescribing routines therefore remained intact both in the periphery and in the hospitals of Batavia and were virtually unchanged.

Until the last years of the VOC's presence in Asia, the supply of medicines to the settlements in Asia remained problematic. Many initiatives had been undertaken to solve the problems, but people continued to face shortages, spoiled shipments and the impossibility of locally sourcing enough rather than having everything come from the Netherlands. Not only the length of the journey from the Netherlands was a fact that negatively impacted the quality of medicines, but one also proved unable to design packaging that could prevent medicines from being lost during that long journey.