



Theses

supervised by the chair of Health Care Management

Master thesis «Identifying barriers for patients with sickle cell disease to access treatment with Hydroxyurea – A qualitative analysis of the supply chain in Ghana», Simone Graven, MIA, 2021

Abstract:

This Master's thesis focuses on a genetic and inheritable blood disorder called sickle cell disease (SCD) which is most prevalent in sub-Saharan Africa. Without adequate treatment, SCD is life threatening. One of the main treatments is a generic drug called hydroxyurea, which reduces complications associated with SCD and therefore increases quality of life while prolonging life expectancy. Treatment options for patients with SCD greatly vary between high- and low-resource countries as the latter struggle to provide adequate treatment. This thesis therefore aims to examine how patients with SCD in Ghana, a sub-Saharan African country, access hydroxyurea treatment. The main research question is «How do patients with sickle cell disease in Ghana access treatment with hydroxyurea?». Since a country's supply chain plays a crucial role in making health commodities available and thereby enabling access to treatment, the thesis also addresses two sub-questions that support the main research question:

- How does the current supply chain of hydroxyurea in Ghana look?
- What barriers can be identified that hinder sickle cell disease patients from accessing treatment with hydroxyurea in Ghana?

To answer these research questions, this Master's thesis conducts an analysis consisting of 10 qualitative interviews with key stakeholders involved in the supply chain of health commodities, including but not restricted to hydroxyurea. The information provided in these interviews is then examined based on a content analysis. The results are presented in a process map and a causal loop diagram.

The results reveal a high fragmentation and decentralization of the supply chain of health commodities in Ghana that severely compromises the continuous availability of hydroxyurea in Ghana. The results also disclose that there is currently no central procurement or distribution of hydroxyurea. The country is therefore highly dependent on the public-private partnership with the pharmaceutical company Novartis, which provides Ghana with donations of hydroxyurea. But not all patients are able to receive hydroxyurea donated from Novartis. Most of the patients still have to pay the treatment out-of-pocket which is a great financial barrier that leaves many patients unable to afford the treatment. Furthermore, there is a lack of accurate data on the number of individuals with SCD in Ghana, which makes adequate health interventions challenging. Additionally, health facilities that offer hydroxyurea treatment are mainly located in urban areas, which are inaccessible to many patients living in rural areas. Based on these findings, this Master's thesis identifies four main barriers that patients with SCD face to access treatment with hydroxyurea and proposes possible next steps to overcome them.