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Geneeskunde & Farmacie

GF

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Frank VERBEKE

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To obtain the academic degree of
'***DOCTOR IN MEDICAL SCIENCES***'

ICT-based health information management methods in sub-Saharan hospitals

Promotor: Prof. M. Nyssen

Thursday 20 December 2012
Auditorium Brouwer, 17:00
Faculty of Medicine and Pharmacy, Laarbeeklaan 103, 1090 Brussel

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Situering van het proefschrift/*Summary of the dissertation*

Many developing countries, particularly in the sub-Saharan region, suffer from chronic difficulties to efficiently cope with major challenges in terms of public health. Furthermore, explicit frameworks defining the goals of a health system against which outcomes can be judged and performance can be measured are most often not available.

This research explores to what extent ICT-based information management methods can help improve efficiency and effectiveness of health services in sub-Saharan hospitals and how information, that was recorded for purposes of patient care, can be made available for secondary use enabling non-redundant reporting of health- and care performance indicators.

Convincing evidence was provided in the course of our 6 years research for confirming the hypothesis that the performance in terms of efficacy and efficiency of sub-Saharan health facilities can be improved by implementing well adapted ICT-based health information management tools.

Patient identification, financial management and structured reporting improved dramatically after implementing a newly developed open source health information management system in 19 hospitals in Rwanda, Burundi and the Democratic Republic of the Congo. Real-time financial management metrics helped hospitals to quickly identify fraudulent practices and defective invoicing procedures. Out-patient case load significantly increased compared to the national average, median length of stay has been shortened in 15 health facilities and global hospital mortality has been reduced.

Curriculum Vitae

Frank Verbeke graduated as a Medical Doctor in 1988 at the Katholieke Universiteit Leuven. From 1989 till 1990, he has been working in a remote hospital in the Northern-Ubangi region in Zaïre (now DR Congo). After the Mobutu regime put an end to the Belgian Technical Cooperation in 1990, he came back to Belgium to work as a physician-software engineer at the Department of Informatics of the Military Hospital of Neder-over-Heembeek. There, he coordinated until the year 2000 the implementation of the hospital's Electronic Medical Record, the Lab Information Management System and the Portable Emergency Record on optical cards.

During the same period, he also founded Datamed NV, a company developing practice management software solutions for general practitioners and published as a health informatics editor for various medical magazines (Artsenkrant, De Huisarts, Palfijn).

Since 2001, he started a new career as CEO of Medical eXchange Solutions, a company developing large networked health information management solutions for pharmaceutical drugs development, multidisciplinary care programs such as DementiaNet, distributed health applications for the Belgian Federal Police Medical Service and occupational health software for a number of large companies. Since 2006, he returned to the sub-Saharan region, this time to Rwanda where he started the development of an open source hospital information management solution adapted to low-resource countries, called OpenClinic. Until today, he has been deploying this system in 26 hospitals in 5 different African countries.