Family Medicine Programme at Université Protestante au Congo UPC Evaluation of the period 2014 to 2018

Picture 1: At the entrance of Luyindu Hospital

Picture 2: Centre Médical at UPC

Dr G Schneider and Dr I Fernández

German Institute for Medical Mission - DIFAEM Deutsches Institut für Ärztliche Mission

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Content

Abbreviations

AMR	Anti-microbial resistance
BftW	Bread for the World
CH	Centre Hospitaliers
DOM	Département des Oeuvres Médicales
DRC	Democratic Republic of Congo
ECC	Église du Christ au Congo
EED	Protestant Development Service
EKD	Diaconal work of the Protestant Church
EZE	Protestant Central Agency for Development Aid
FD	Family Doctors
FGD	Focus Group Discussions
FM	Family Medicine
FMP	Family Medicine Programme
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
HRG	L'Hôpital Général de Référence
IPC	Infection, prevention and control
ISTM	Institute Supérieure Technique Médicale
ITM	Institute Technique Médicale
MEDUNSA	Medical University of Southern Africa
MoH	Ministry of Health
NCD	Non-communicable diseases
PHC	Primary Health Care
SA	South Africa
SK	South Korea
TB	Tuberculosis
UEA	Université Evangélique en Afrique
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
UPC	Université Protestante au Congo
US	United States
WHO	World Health Organisation

Acknowledgements

This assessment of the implementation of the Family Medicine Programme (FMP) of postgraduate physicians at Université Protestante au Congo (UPC) was conducted from 6th November to 14th November 2017 by Dr Isabel Fernández, in Kinshasa and Kimpese in the Democratic Republic of Congo (DRC). I would like to seize the opportunity to thank everyone who has made this assessment possible and my stay in the DRC a very good one.

Dr Gisela Schneider visited the Université Evangélique en Afrique (UEA) and Panzi Hospital for an assessment at the Bukavu site in South Kivu from 25th October to 3rd November.

I would like to thank Dr Philippe Lukanu, who was one of the first students of the programme in 1997 and who became the academic coordinator of the FMP at UPC. He arranged for my transport and accommodation and allowed me to spend the week in a very good working and living environment. Thank you very much for your kind hospitality.

I would also like to thank the other leaders of the programme because without their support, it would not have been possible: Prof Dr Leon Kintaudi, initiator and previous coordinator of the FMP, Prof Dr Samuel Mampunza, academic secretary-general, Prof Richard Matanda, Dean of the Faculty of Medicine and Prof Daniel Ngoyas, rector of the UPC. They contributed greatly to the programme of the assessment and without their leadership and guidance, this work could not have been done.

Their commitment and the enthusiasm for young doctors is of vital importance for this programme, so that Family Doctors (FD) can take on their responsibility to provide quality health care anywhere in the DRC.

Throughout the evaluation everyone was eager to share the information needed and facilitated the communication with students and staff alike. I would like to thank the staff at the hospitals, the residents and family physicians who all contributed to this work.

The potential of this medical faculty is great, as many young people are interested and willing to be trained. All the more, there is the need to expand the clinical training and the opportunities for research in this setting.

Thank you to all who contributed to this assessment. I hope that the results will lead to further development and strengthening of the programme.

I would like to thank Bread for the World for funding this important programme and allowing us to accompany the process of implementation.

31.12.2017 Dr Isabel Fernández

Picture 3: (from left to right)
Prof Kintaudi, Dr Fernández and Prof Mampunza

Executive Summary and Major Recommendations

Bread for the World (BftW) is funding the training of Family Medicine specialists at the Université Protestante au Congo (UPC) in different training hospitals. Since 2006 30 doctors have graduated and 21 are working in the Democratic Republic of Congo. From 2014 to 2018 27 residents enrolled in the Family Medicine Programme (FMP) of which 20 were funded by BftW.

Theoretical training takes place at UPC. Residents participating are attached to one of eight special training facilities across the country. After three years an exam has to be passed in order to continue with the fourth year, which focuses on a research project and, if completed successfully, heads for the final exam for a master's degree in FM. The curriculum is detailed and specifies the hours that must be spent in theoretical and practical work.

Bread for the world asked DIFAEM to do a basic programme evaluation with the aim to answer the questions on the development of the programme over the past decades. Included shall be content, relevance to practice, research orientation, quality of medical care (especially in rural areas), current location and work places of postgraduate medical doctors and how these posts are financed. Recommendations are provided for the further promotion of the FMP.

The assessment was conducted in Bukavu by Dr G Schneider, who visited the Université Evangélique en Afrique and Panzi Hospital from 25th October to 3rd November 2017 and by Dr I Fernandez from 6th to 14th November 2017 in Kinshasa and Kimpese in the Democratic Republic of Congo (DRC). Interviews, questionnaires and focus group discussions were held with the leaders of the faculty and the hospitals, as well as with residents and Family Doctors (FD).

More than 80 million people live in the DRC and a massive rural - urban shift is taking place. Over the past years there were only marginal changes for the huge country in the state health services: The lack of human resource, medication, hygiene and sanitation is high. Problems are increasing: not only communicable diseases are uncontrolled but non-communicable diseases increase too.
The results of the evaluation highlight the importance of such a training programme, as there are great needs to improve patient care within the health system.

During the past years the FMP has climbed several stepping stones like the approval of the FM specialisation by the Ministry of Higher Education and the Ministry of Health. The programme is now led and run by Congolese doctors and held in French.
The training was rated good to excellent by residents and Family Doctors. Highly motivated leaders and coordinators are strengths of this programme. Overall the curriculum and training is well adapted to the health care needs in the DRC. But there is still need for some improvements: a difficulty is to keep the same level of training for all residents at the momentary eight different training sites. Residents and coordinators at the sites wish more regular communication and meetings with the leaders at UPC. There is an overall lack of a continuous and fast internet access. Also financial resources for travelling, e.g. to conferences, are too small but this could also strengthen networking with other universities.

Clinical and operational research, monitoring and evaluation has just started. Further results need to be documented and published. Research must also be developed within the Faculty of Medicine at UPC. Leaders and coordinators of the programme need support to do a PhD in Family Medicine.

There still needs a lot of advocacy work to be done so that state and church health care facilities take over Family Doctors automatically and discover their great potential to improve quality in and access to health care especially in rural areas.

DIFAEM highly recommends to continue the funding of this programme in the future and to take into consideration some of the recommendations made in the assessment.

Picture 4:
Dr Lukanu (second from left) and Dr Fernández with the residents of Kinshasa

1. Introduction

The primary purpose of the evaluation is to provide various stakeholders with information on the current status of the project and to give the opportunity to assess and reflect the extent to which the project has achieved the desired outcomes thus contributing to the improvement of the health services.
The evaluation provides background knowledge of the socio-economic and political context in which the intervention takes place and a description of the policy context relevant to the development of the programme. Furthermore, it provides a description of the institutional environment and stakeholder involvement relevant to the programme, so that their influence can be identified and assessed. Previous evaluations will be taken into account and achievements and challenges highlighted. The evaluation report describes the organizational arrangements established for the implementation of the development intervention, including the roles of donors and partners.
Another objective is to determine independently the effectiveness, efficiency and relevance of the Family Doctors Programme (FDP) for health professionals and the participating health facilities and also to advice on the future development of the programme.
The evaluation was undertaken in a participatory manner and the results presented are based on the consultation with the partners. The evaluation looked especially at the years 2014-2017 but also included information from FD who finished their specialization in 2014 or before.

a. The Democratic Republic of Congo – current data

The DRC is geographically the second largest country in Africa and it has a fast growing population of now estimated 82 million people (Figure 2)[1]. Life expectancy is low with 52 years, 44% of the population is under 15 years old and 75 % under the age of 30.[2,3]Despite its immense natural resources it is classified as one of the poorest countries in the world. A long history of war, civil unrest and rebel activities led to complex humanitarian emergencies.

The Gross Domestic Product (GDP)-rate was generally growing after the second Congo war ended in 2003 but remains prone to fluctuations: in 2013/14 it increased up to 9% then fell in 2015/16 to the lowest point of 2,4% since 2001. This is caused by the falling global demand and declining prices for raw material which account for 80% of the export revenue. This economic shock led in 2016 to a 31% drop in the exchange rate of the Congolese Franc against the US Dollar, which fuelled an inflation of almost 24%[4].
While the poverty rate overall is slowly declining, DRC still ranks among the 10 poorest countries in the world, on the most recent UN Human Development Index of 2015 it has consistently one of the lowest GDP per capita and is one of the 20 countries worldwide where corruption is highest[4].

Over the last decades, a rural to urban shift is a worldwide trend that will further increase in the future (Figure 1). In our last evaluation of this programme in 2009 we already mentioned the 'rural exodus' in DRC: it was then estimated that 80% of the population were living in rural areas which decreased to less than 60% in 2014 (Figure 3). In rural areas communities and villages were sometimes deserted due

[1] http://www.worldometers.info/world-population/democratic-republic-of-the-congo-population/
[2] http://www.who.int/countries/cod/en/
[3] https://www.britannica.com/place/Democratic-Republic-of-the-Congo/Settlement-patterns
[4] http://www.worldbank.org/en/country/drc/overview

to war and security issues, both leading to a massif rural-urban shift. There poverty, hunger and malnutrition increased since normal farming activities were often disrupted.

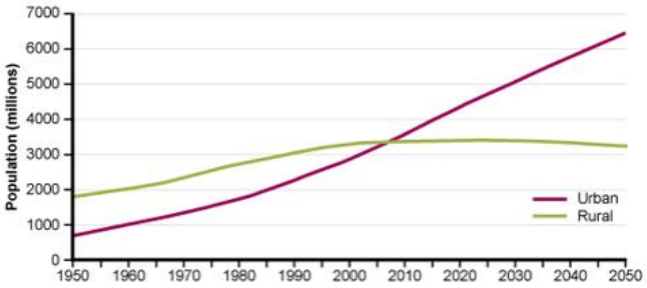


Figure 1:
Rise of the world's population and global change of urban vs rural distribution from 1950 to a projected figure in 2050 (UNDESA, 2014)[5]

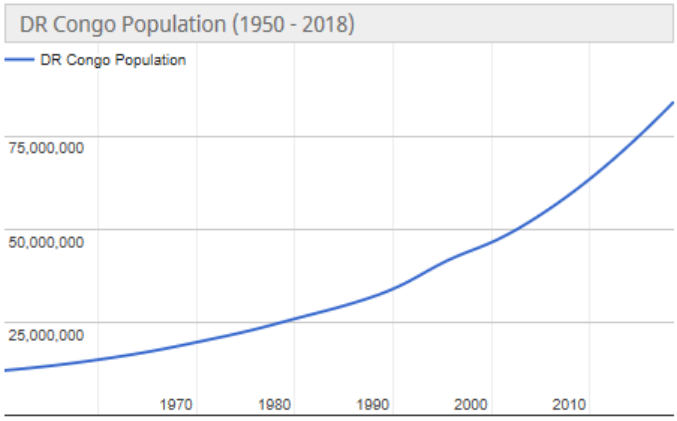


Figure 2: Rise of the population in DRC in past 50 years[1]

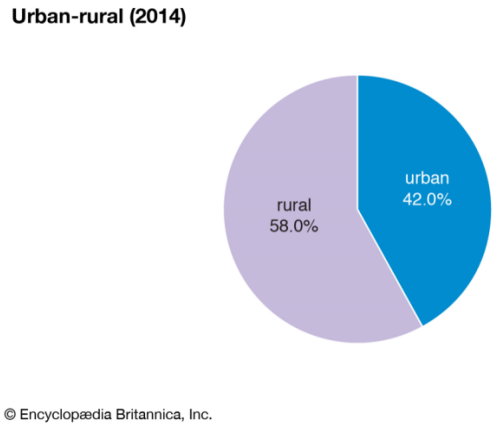


Figure 3:Distribution of population in DRC[6]

Kinshasa, the capital, shows the rapid growth now typical of many cities in the country. In 1889 the population of Kinshasa was 5 000, by 1925 it had developed into an urban centre of 28 000 people. In 1950 it had increased tenfold to 250 000 and reached 1,5 million in 1971. In the mid-1990s the number was tripled to 4,7 million while it has now got an estimated 12 million inhabitants – a more than two-thousand-fold increase in 130 years[6]. Housing and road conditions have not kept up with the increase in population as can be seen in Luyindu in Kinshasa (Picture 5 and 6).

Traffic is tense not only in the centre of Kinshasa (Picture 7) but also in Bukavu where there are few signs of hope in the middle of the bustling city that accommodates thousands of internally displaced people from the surrounding communities. The situation in South Kivu is like a forgotten crisis, a forgotten people who are waiting for peace and stability as they live in a rich country with fertile land and enough resources to feed everybody.

Picture 5 and 6: Roads and housing in the suburban area of Luyindu (Kinshasa)

[5] https://esa.un.org/unpd/wup/publications/files/wup2014-highlights.pdf
[6] https://www.britannica.com/place/Democratic-Republic-of-the-Congo/Settlement-patterns

Picture 7: Robot managing the traffic in the city centre of Kinshasa

b. Background knowledge about the health system in DRC

DRC has a decentralized and well-structured health system. Each health zone has at least one Hôpital Général de Référence (HRG) with specialists. The next lower level are Centres Hospitaliers (CH), district hospitals with general medical services, maternity, basic surgery and outpatient departments. A CH usually has a general practitioner who deals with everything. Below the CH there are the Centres de Santé who offer basic inpatient services, basic obstetric care, outpatient and preventive services. In the communities there are Postes de Santé who offer basic outpatient services for diseases like malaria, gastroenteritis and some non-communicable diseases (NCD)besides preventive care.

Churches play a major role in the DRC health system as they provide health services for between 40-70% of the population, depending on the area. Throughout the years of civil war and unrest, church services where a stable component of the health system and especially in rural areas they are often the sole provider. Therefore, training young people to take on responsibility within the church health system is extremely important and will be the only way to sustain and improve health care within a vast country with many people living in hazardous conditions.

Concerning health, the epidemiological profile is dominated not only by communicable diseases but also NCD. Maternal and child mortality, though improving, are still among the highest in Africa. The health system is fragmented and mainly the poor population in the rural areas have limited access to health services.

Since the millennium great international efforts have led to a better coordination of humanitarian action and a slow reduction in HIV prevalence. A number of partners support the health sector amounting to approximately 39% of health financing (e.g. the USA, EU, World Bank etc.). The World Health Organisation (WHO) plays a major role in sectoral reform of Health System Strengthening, the National Health Development Plan and its coordination[7].

The WHO states that targets and opportunities for health development in DRC should be[7]:

- to establish a system for health care funding that allows equal access for all
- to improve the management capacity of the entire health system in line with decentralization
- to maintain effective disease control programmes like HIV, TB, malaria and vaccinations
- to manage and coordinate humanitarian efforts
- to strengthen the leadership role of the Ministry of Health (MoH) in the context of multiple partnerships

[7] http://apps.who.int/iris/bitstream/10665/246210/2/ccsbrief_cod_en.pdf?ua=1

Training in the health sector

Nurses and allied health professionals are trained in the ITM (Institute Technique Médicale) and the ISTM (Institute Supérieure Technique Medicale). The latter train nurses, lab-technicians etc. to a bachelor's level, the former provide basic training at a diploma level. Over the last few years, many universities have opened in DRC and many have started to build up a faculty of medicine. With more than 50% of the population under the age of 25 and many who now completed their schooling to a level, where they can join a university, there is an increasing "market" for university training. Churches have followed this trend and opened universities.

c. The Université Protestante au Congo (UPC) and the Faculty of Medicine

Université Protestante au Congo

The UPC has five faculties organized into departments and research centres in order to fulfil the missions it has set itself, namely teaching and producing knowledge capable of improving human existence.

The Faculty of Theology is the first faculty and was founded in 1959. The Faculty of Business Administration and Economic Sciences and the Faculty of Law were founded in 1994, the Faculty of Medicine was created in 2006 and the newest, the Faculty of Computer Science, in 2017. All together UPC has nearly 8000 Francophone students.

UPC Faculty of Medicine

The Faculty of Medicine is the second last born faculty; it was created in 2006. It already enjoys a good reputation in terms of the teaching materials and the quality of teaching staff. Medical students study 7 years, before they graduate. The last year of their studies, they work as interns (stagières) in teaching hospitals. Stagières rotate through the four main departments: gynaecology, surgery, internal medicine and paediatrics.

'Building a healthy Congo' is the aim of this young faculty. 'Health is the most precious human capital but it should go through expert hands to be good, through quality human resources.'[8] The faculty operates according to international standard, in terms of infrastructures, laboratory equipment and clinical training conditions. Promotion of health in rural areas is a special concern, that future doctors 'serve the neighbour' and among the most deprived of the Congolese population.

Pillars for reaching the aim are the following:

- Medical doctors shall be high-ranking health professionals with excellent intellectual, moral and spiritual qualities, capable of managing the health of communities throughout the DRC and elsewhere.
- Research is encouraged so that doctors become a think tank for finding solutions to community health problems through applied and fundamental investigation.
- Quality service shall be provided in terms of prevention, care and health promotion through its training hospitals.

In 2014 the first 68 physicians finished their studies at UPC successfully, delivering human resource capable of providing for the health of diverse communities.

The training has earned the trust of several medical schools as partners, e.g. Johns Hopkins and Harvard University (US), University of Limpopo (SA) and Songsil University (SK).

The government of DRC has recognised UPC as a university and specifically the Faculty of Medicine with their undergraduate and postgraduate programmes.

[8] http://www.upcrdc.org/spip.php?article105

Bread for the World (BftW) is supporting UPC since many years. This includes infrastructural projects (e.g. building of the Faculty of Medicine, library, etc.); support for the training of undergraduates and postgraduate programmes including scholarships for higher education and doctoral degrees.

d. UPC Family Medicine and Primary Health Care Program

The Faculty of Medicine of UPC has been organizing since 2010 the Master's program in FM and Primary Health Care (PHC) in partnership with the University of Limpopo in Pretoria (SA). This training program is organized in recognition of the need to equip physicians for the demanding practice of PHC and the development of holistic medicine adapted to the realities of the DRC in general and the rural environment in particular.
The considerable increase in knowledge, not only about health and disease, but also about people and their lives, including the development and transformation of society, requires the presence of physicians capable of advocating in a context of interdependence.
The overall objective of this program is to equip physicians to better respond to the health issues by patients, their families and communities.
The general training aim was building capacity of FD to enable them to provide quality health care in rural areas where most of Congolese people reside with limited access to quality health care.

Account of the Family Medicine Programme

In 1987, the co-operation between ECC/DOM (Église du Christ au Congo and Département des Oeuvres Médicales) and EED/EZE (Evangelischer Entwicklungsdienst/Protestant Development Service und Evangelische Zentralstelle für Entwicklungshilfe/Protestant Central Agency for Development Aid) started with the training of specialized medical doctors like e.g. surgeons.
Since 1997, the focus changed from training in specific medical fields to a more generalised qualification. From 1997 to 2010 the EED has funded the training of FD in DRC. It was formerly directed in English by Medical University of Southern Africa (MEDUNSA) at Limpopo in South Africa.
In 2009 the project cycle from 2006 to 2010 was evaluated by Ursula Kohler from DIFAEM and visited by Gisela Schneider in 2012 for the first Conference of Family Medicine. The following objectives have been achieved or are still pending.

<u>Achievements:</u>
- approval of the FM specialisation by the Ministry of Higher Education and the MoH (2012)
- establishment of a Department of FM and a postgraduate training programme for FM (since 2010)
- adaptation of the curriculum to the needs in DRC (2014, Annex V)
- change to a programme that is lead and run by Congolese FD in French language (since 2010)
- retaining the postgraduate FD within the DRC health system (Table 1), and some within the church hospitals
- private health institutions started to send their postgraduate doctors for the FMP
- other universities in Kinshasa start to show an interest in the FMP

<u>Pending targets:</u>
- approval as a medical specialisation by the Medical Council
- provision of data/studies to prove the impact of FM in health care especially in rural areas (e.g. on maternal and child mortality) and the millennium development goals
- development of a monitoring and evaluation tool at the teaching hospitals that will inform the programme on progress of quality of and access to care
- a regular conference of the programme on an annual basis to follow up on FM matters and network with other FD from within DRC and other countries

- formation of sufficient local faculty, now that more FD work at the teaching hospitals and expand the program
- support of two coordinators (in Kinshasa and Bukavu) to establish their PhD
- encouragement of more women to enrol in the programme and at least one of the successful female graduates should be taken into the team of facilitators
- advocacy work by a central bureau with the following duties:
    - improvement of quality and access of HC at the districts and coordination of PH needs
    - development of a real career path and safe perspective for FD and
    - convincing churches and government to make room for at least 10 FD from one group to be given the prospect of an appointment at the health zonal level
    - convincing donors to further fund scholarships for this programme

BftW took over the previously EED funded project of training of family physicians. BftW has invited external evaluators to conduct an evaluation that comprise experiences of the hospitals and medical doctors who attended and completed the training since 2014 as planned in the project proposal. The present funding from Bread for the World is running until June 2018. BftW demands a revision and formal evaluation of the project, especially the period from 2014 until today.

e. Aim of the evaluation – Terms of Reference

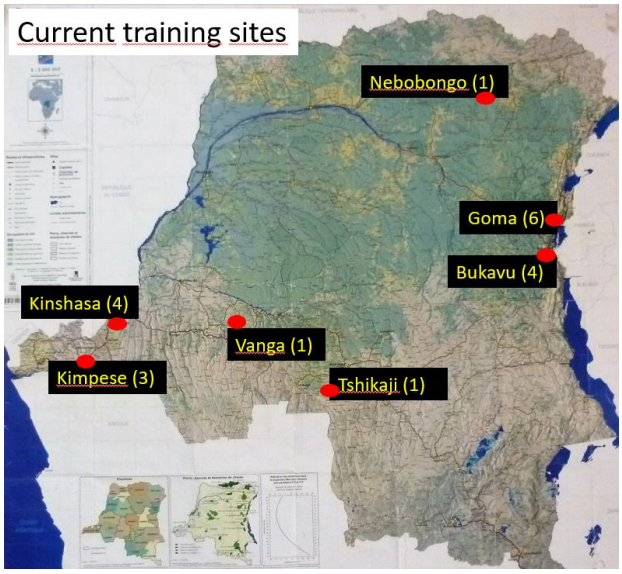
BftW has asked DIFAEM to do a basic programme evaluation with the aim to answer the following questions:

1. What information gives the stocktaking of the work carried out so far and what are the results achieved (taking into account the long period of funding)? Included shall be content, relevance to practice and research orientation.
2. How relevant was the programme in terms of improving village health work?
3. Has the quality of medical care actually increased through the family medicine approach?
4. Where are the trained FD working? Do church and non-church health care institutions employ FD?
5. Is the remuneration of FD satisfactory? Are there models to ensure sustainable financing for FD - especially for rural areas? Do church health facilities play a special role here? Are there perhaps advantages or disadvantages in comparison to state and private employers?
6. Is self-employment a realistic alternative?
7. How can the further promotion of the FMP look like, through financial means and other instruments for the next years? What are the prerequisites for this? Should this work be accompanied by the DIFAEM?

2. The Setting

The duration of the training is four years and a term starts only every four years. So far at UPC one group finished a four-year term in 2014 and another is about to finish in June 2018. Residents participating are attached to one special training facility. After three years an exam has to be passed in order to continue the fourth year, which focuses on a research project. Successful completion leads thereafter to a final exam at the UPC heading to a master's degree in FM.

Training sites



Picture 8:
Current training sites; number of residents in brackets

The training program alternates between theoretical and practical training. Theoretical training takes place at UPC. It is structured around 25 modules, including 13 for FM and 12 for PHC. Practical training of the current 20 residents takes place in eight locations across the country: HGR of Kimpese (Bas Congo); HGR Vanga (Bandundu); HGR Tshikaji (Kasai Occidental); HGR Panzi (South Kivu); HGR Nebobongo (Orientale Province); Luyindu EMC and CH Monkole (Kinshasa) and HGR Virunga (Goma). The huge distances between the sites are a major challenge for the programme.[9]

At present 20 postgraduate students are preparing for their final exam in June 2018. 17 are supported by BftW, two are supported by private health facilities and one is paying the fees himself. At the time visited the student from Tjikaji was also at Kimpese as his security could not be guaranteed due to unrests. In the past there was also a location in Nyankunde, but the training there could not be continued also due to security reasons.

Accommodation of the students is in the remote areas on the hospital premises but in the bigger cities it is not provided and must be paid from the scholarship.

Curriculum

The curriculum is detailed and specifies the hours that must be spend in theoretical and practical work. In 2014 an adaptation of the curriculum to the needs in DRC was established (a summary in Annex V). In the first three years it is relatively strict with fix times that have to be spent in each department and only 5 months that can be chosen freely.

Compulsory are: internal medicine, surgery + anaesthesiology, ophthalmology, gynaecology + obstetrics, paediatrics, otorhinolaryngology and PHC. In each department specific contents and skills need to be learned (an example for gynaecology and obstetrics is showed in is in Annex IV.

[9] http://www.upcrdc.org/spip.php?article129

3. Evaluation of the Family Medicine Programme – term 2014 to 2018

a. Purpose

The results of the evaluation will assist in identifying key successes and weaknesses prior to further project planning. It will provide an independent assessment of the relevance and effectiveness of the FMP, specifically the evaluation will achieve the following objectives:

1. The satisfaction of trainees and trainers with the current programme and the identification of areas of strength and weakness that could be improved in the future.
2. The effect of the training programme on the host hospitals in terms of training support, available additional workforce and patient care.
3. The future perspective of the training of FD in the context of the Congolese public health system.
4. The career perspective of FD in DRC and the potential effect of strengthening the health services.

b. Scope and type of the evaluation

Type of evaluation

This evaluation will be conducted through a participatory process. It will include all stakeholders and where possible will be learning oriented. We will apply participatory methodology and concentrate mainly on qualitative data.

Evaluation questions

The following key questions are of specific interest:

1. Has the preparation and implementation of the project been effective and efficient?
2. Is the quality of training adequate and appropriate?
3. Have the necessary structures and systems since the last evaluation been created?
4. Has the output been as expected? How many of selected candidates will complete the rotation, the required assignments and the final exams?
5. Have the expected outcomes been achieved? Has the project contributed to improving the range and quality of services provided?
6. To what extent have the trained specialist stayed within the DRC health services in public or private sector? What factors contribute to the retention of specialist?
7. Is the training of relevance and appropriate in the context of both the health services and the wider socio-economic context of the DRC?
8. What are the lessons learnt from the project? How was a gender perspective applied? What should be considered in future planning?
9. What intermediate and long-term effects in terms of access and quality of curative and preventive health services (especially in rural areas) as well as structural changes in the health sector does the programme have?

c. Methods

This evaluation of the FM training looked at the programme implementation as a whole. It describes what has been achieved and how the programme is viewed by staff, trainers and trainees.

This evaluation mainly used a qualitative design attempting to be interpretive and exploratory in nature with a range of different participatory evaluation techniques. This design allows the exploration of the stakeholders' perception on processes, implementation and changes which have taken place as well as the desired future goals and ways to get there.

The aim was to speak with coordinators, teachers, hospital leaders, residents and FD alike. A combination of qualitative and quantitative methods was used consisting of

1. General and clinical observations at the visited training sites. In addition, in Bukavu residents were followed during the working time.
2. Semi-structured interviews with key stakeholders of the Congolese health system, coordinators of the programme, and medical leaders of the three training sites visited
3. A questionnaire for the current residents who will graduate in 2018
The questionnaires were adapted from the pre-existing questionnaire of the evaluation from 2009 and some questions added. The questionnaires were distributed to the target groups during a meeting before the FGD or sent via email to the residents at the sites that were not visited.
4. A questionnaire for FD who have graduated since 2010.
5. Three FGD with the current residents and some coordinators at site.

Aspects that could not be evaluated at this time, are the actual level of clinical and theoretical training in the various fields and different training sites. This would need to be done by specialists who will actually look at the level of competence of residents in theory and practice and make recommendations to the professors on the ground on how to improve the level of training.

A summary of observations made during the week were gathered and discussed with the rector of the university, the dean of the faculty of medicine and the head and the coordinator of the FM training programme. This report contains the recommendations that were discussed with the partner organisation and the details of the results of the interviews, questionnaires and FGD.

4. Results of the evaluation

a. General observations and visited training sites

Picture 9: Visited sites in blue

The working environment for the residents at the three different visited hospitals (Picture 9) in Kinshasa (Luyindu), Kimpese and Bukavu are excellent and many departments thrive to offer good quality care. While visiting the hospitals one finds a highly motivated staff offering services to the best of their knowledge and ability. In all three hospitals housing is on site and also the medical directors live on the premises and do an exemplary leadership and motivate their health team. Overall, processes are well established and daily schedules adhered to. The mission of the three church hospitals, although in very different settings, is to assure holistic quality care through improved health care service delivery and community outreach activities.

Panzi Hospital at Bukavu serves a population of 400 000 people in the health zone of Ibanda but accepts patients throughout the region of South Kivu with six million inhabitants. The hospital has 450 beds and on average 941 inpatients and 1000 outpatients per month. It was founded in 1999 by Prof Dr D Mukwege, a gynaecologist facing the enormous challenge of very severe cases of sexual violence. He developed an excellent and comprehensive programme for these women and has won many prices. Under his leadership the hospital developed and the department for urogenital surgery has gained international reputation. The hospital wants to offer holistic services and improve health care through community sensitization. The vision is to be a centre of excellence and for training leading to health for all. It offers 24 hrs services for all emergencies and participates in community based outreaches of prevention.

Picture 10: Ward round at Panzi Hospital in Bukavu

Panzi Hospital is now the university teaching hospital for Université Evangélique en Afrique (UEA). The hospital offers training opportunities through their specialists, who lead as head of departments, not only for residents in FM but also for stagières and residents for other specialisations in surgery, gynaecology, paediatrics and internal medicine. Residents in FM are in one department for several months. The stagières are available who check patients initially and residents are there to manage patients with them. Many of the residents are motivated to learn as much as they can and are willing to share their knowledge with the students. Clinical meetings are well attended (Picture 5). Stagières give their report of patients managed during the night and the heads of departments used the opportunity to teach basic clinical management through those examples. The ward rounds attended in Bukavu were teaching ward rounds that took time for each patient. Every patient was seen by a stagière beforehand. He/she presented the case. Suggestions for diagnoses and clinical management were made and discussed and the patient's care decided. These are very good opportunities of learning especially for medical students. However, it is not easy to provide training at the same time for interns, residents of FM and other fields like surgery and other trainees that are part of the clinical team such as nurses students, etc.

Picture 11: Healing Buruli ulcer in Kimpese Hospital

The Hôpital Général de Réference Institut Médical Evangélique in Kimpese is a big reference hospital and serves a population of approximately 150 000 people in the local area and another 600 000 in the surrounding district. It has around 400 beds for inpatients with 20 doctors and 100 nurses. The hospital is situated 400 km southwest of Kinshasa on the principal road. It is drowned with motor vehicle accident victims and consequently the orthopaedic department is the biggest in the hospital[7]. It has also a reputation for the studies of the Buruli Ulcer and published many articles.

EMC Luyindu (also Picture 1 on the frontpage) in Kinshasa has only two permanent doctors. Specialists from the city come for a few hours when enough patients are 'collected'. Especially in this setting a resident in FM is of highest value: he is highly motivated to improve his knowledge in the various fields offered and unburdens the two other doctors immensely by also doing nightshifts.

Picture 12: Dr Adolph, leader at EMC Luyindu

In all three settings "auto-financement" by the patients is needed. The hospitals are lacking state support and insurance coverage. Especially at Panzi Hospital as a university hospital that provides excellent standards and services the cost of patient care is high. As this cost is neither covered by insurances nor by government subventions, it leads to high costs that must be carried directly by patients. Therefore, many people in the catchment area will seek services elsewhere and only come to Panzi when they are very ill.

With different preconditions, training in the different sites cannot be the same. To reach the same level of training should be a target of the FM programme.

Infection, prevention and control (IPC)

The general cleanliness of the hospitals is in general good. Everywhere cleaners are available who take care for the daily needs. However, since the recent Ebola epidemic, we are much more vigilant concerning IPC measures, which in turn can also reduce the need for antibiotic use, which is another concern in the light of increasing anti-microbial resistance (AMR). Another area of concern is hand hygiene of staff members (nurses and doctors, handling of stethoscopes etc.;) and issues around the possible transmission from bed to bed in open wards.

Clear protocols must be kept for hand hygiene for all staff and provisions should be made for hand hygiene: e.g. dealing with patients in a ward. One option is to introduce good hand washing facilities on every ward and every station where patient contact or contact with potential infective agents occurs.

Local production of hand sanitisers area one option to keep costs affordable. Given to all staff members, this may improve hand hygiene and cross infections. Once a monitoring system is put in place and regular supervision made infection control measures can be much improved (see WHO recommendations on hand hygiene and the local production of sanitisers). Especially as a training institution, IPC is critical as students learn by doing rather than learning from a book.

Another problem of IPC is bed sheets. It is good to have hospital bedsheets, but at the same time, the hygiene of hospital sheets must be kept as well as those of bed nets and curtains who easily can be sources of infections between patients.

This is just an observation and suggestion for the improvement of the quality of care given on the wards.

Smaller hospitals might have a problem with space and therefore do not have a sluice before entering the theatre (e.g. in Luyindu).

Logistics for trainees

Access to electricity and fast internet is not only the key to information for successful studies but also for communication and exchange with other residents, coordinators, other universities and FM

associations worldwide. Even in Kinshasa at UPC there is often an interruption of the electricity supply and internet connection is not reliable.

b. Other visited sites and projects – Where do FD work after their studies?

Some of the FD now work as FM coordinators at the different training sites. During the visit there was also the opportunity to visit other sites, where FD found work after finishing their studies.

One is directly on the campus: Le Centre Médicale UPC (see also Picture 2 on front page). UPC is the only university in the DRC who has a student and alumni health insurance plan. Called MUSOPROC for short, it provides peace of mind for the students. The health centre has been established and managed by 2014 family medicine graduate Dr C Magema. With the help of medical students in their last year before clinical rotations, the health centre treats an average of 300 staff and student patients per month. Main issues are malaria, and gastrointestinal or respiratory infections.

Picture 14: Dr Kakese at a private practice in the city of Kinshasa

Dr Kakese, another graduated FD, works in a private medical practice in the city centre of Kinshasa together with several other doctors. She reports that various firms send their workers through the means of insurance plans but others pay the treatment out of their own pocket.

Dr Mireille works in MEDIFAM at a newly opened clinic for FM in Luyindu. Until now he sees only around 10 patients per day. The reason might be that patients in this poor environment are not covered through their workplace and may not be able to pay for the consultation and treatment themselves

Picture 15:
Private FM clinic at Luyindu

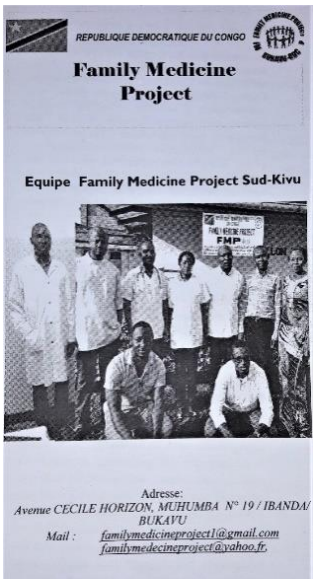
Prof Kintaudi and Dr Lukanu started to build a FM health centre in Kimpese, not far from the teaching hospital. In the beginning it seemed to be a risky project, but then with little benefit two more buildings were constructed. It is self-sustaining, several other buildings are under construction for further treatments. Now there are two FD.

Picture 16+17: At the Centre de Santé de la Famille in Kimpese

Dr Schneider met several of the FD of the South Kivu region. They have initiated a FM project in 2016 and formed a FD association.

They are already recognized by the Provincial Ministry of Health and Provincial Health Division.

Two of their major targets are to identify psychosocial issues related to chronic diseases and visiting patients in their communities.



Picture 18: FM Project and association in Bukavu

c. Results of the interviews with the leaders, trainers and coordinators of the programme and the supervising doctors at the training sites

Initially several discussions were held with the leaders and coordinators of the FMP, the dean of the faculty of medicine and the rector of UPC. In the visited sites interviews and hospital visits could be done with the supervising doctors ('les chefs de travail').

As a summary the following results were obtained:

Improving and strengthening of the current health services

The leaders unanimously underlined the importance and relief as a work force of the FMP for the current training sites. But also after completing their training, since 2006 up to now 30 doctors have successfully completed the programme and 21 are working within the country.
All supervisors spoken to confirmed that the training is very necessary as there is a great lack of FD who really know how to deal with all kind of different cases. They are convinced that such a programme will contribute to the quality of care and it is especially important that the programme is offered in rural areas and communities (see later). To stop now would be a calamity. And it is evident that such a huge country needs many more FD to make a difference.
A weak spot in general in the health care system is care for mental health. FD could make a start to change this in settings, where there is no specialist or no care at all.

Main challenges of the health system

<u>Growth of the population</u>

There are tremendous problems in DRC especially concerning the population growth. DRC now has over 80 million people. The speed of growth in the FMP is much slower than the growth in the population.

<u>Church hospitals</u>

Church hospitals are generally having problems with funding staff and equipment. They also operate often in tribal conflicts areas: "Reasons therefore are that these hospitals were founded by foreign missions and missionaries. They are dead, the founding- generation does no longer exist (…). But there are still the buildings which you could use (…) and the government is ignoring that situation completely. They should take over. At least the buildings."

<u>Rural areas</u>

One of the leaders of the FMP mentioned that the biggest question not only for the health system but also for the FMP is: "*How can we send our doctors to the community – so that they can also be satisfied, raise their families? That is the reality, the challenge."* (…) "My dream for these young FD is that they see how they can serve their community and be able to survive!"
Some of the following comments will show reasons and make this a bit clearer:
"Congo has problems; it is still a country divided by tribes. Tribal problems often lead to the situation that students do not remain in the communities where they learned. Those who come from Tjikadji cannot easily go back. Now they only stay in the bigger areas/cities: Kinshasa, Bukavu, Kimpese." (…)
"But Nyankunde: Zero today – so that is a roadblock. How can we have FD throughout the country?" (…). "Those who come from rural areas are easier to go back, because they have roots."
"Our dream would be to build a FD centre, yes, but also to support the clinics of the church like in Luyindu or ECC clinic."
"We need also to train those who do not have the money. We need still support before becoming autonomous."

“We need to be able to coordinate and to supervise, to go to the remote hospitals.”

The FM Programme

The FMP has gained confidence

The government now acknowledges the specialization, specifically the Ministry of Higher Education and the Ministry of Health. The recognition by the Medical Board is still pending but hopefully it will come in 2018. Then there will be an equal remuneration at different workplaces which is still not the case.

But not only official institutions are noticing the FMP other faculties of medicine are interested in FM as well. In DRC the number of medical students is increasing continuously. However, there is a lack of good clinical training for all those medical students. The need for good postgraduate training therefore increases too.

Trainers, professors and training sites

Young doctors out of the programme are taking over the lead – trainees are trainers now. There is still a lack of professors and a need to push them to become PhDs, but this costs more money.

“Another big roadblock is: There are not enough training hospitals here (…). Going back to Nyankunde would be nice (…) - to have more rural hospitals.”

There are few dropout students due to low knowledge and other reasons.

More and more young doctors want to get trained as FD and also want to pay for their training which is good and fairly new.

Rotations to different training sites

One suggestion that came up various times, was the broadening of the experience through rotation, exchange visits and networking with other hospitals and universities. Students benefit greatly from such exposures and thus are better qualified in the end.

Residents should also be given the opportunity to attend conferences or seminars in their speciality. The training should include the financing of travel and conference expenses.

Family Medicine at UPC from 2006 to 2018			
Period	**2006 - 2010**	**2010 - 2014**	**2014 - 2018**
Number of residents started	20	23	27
Number supported by BftW at start	20	20	20
Total dropouts	8	7	7
Number of residents finished	12	16	20
Number supported by BftW at end	12	16	17
Family practitioners working in DRC after training:	5	16	
Church	5	9	
State	0	1	
Private	0	6	
Unknown or others	0	0	
Hospital	5	14	
Health Centre or Practice	0	2	
Unknown or others	0	0	
Family practitioners working in abroad	7	0	
Family practitioner's workplace unknown	0	0	

Table 1: Development of the work place situation for FD in the DRC

Braindrain

Braindrain is still a problem: "*Young doctors are leaving Congo; this is a big problem. Doctors are like stolen! Go to Canada or Malawi, or…*" (…) "*Poor payment may be the reason – doctors and nurses were on strike for months, and the government did not care. Is private practice the solution? Will this be the solution for them? To have their own clinics*?"

There is another tendency within DRC: "CMK, a private clinic grabs our FD very quickly. Owned by a Canadian. These guys are now willing to send their physicians to be trained."

The aim must be to retain graduates within the health system with the aim of improving the quality of curative and preventative health services overall.

The need to improve research

Research is by the leaders of the programme seen as one of the weak points the DRC has: "People do not see that research is in everything and every day is part of research: It starts with reliable data; we do not have enough and we do not learn how to do it, neither in school nor in university. We are not educated for doing research." As for research questions to be answered, there are many opportunities arising. Difficult clinical cases are seen on a daily basis, leading to interesting research questions in the local context. The training of FM gives a real opportunity to conduct clinical and operational research.

An epidemiologist/statistician would be needed to teach, oversee and strengthen clinical research. Overall it would be the aim to concentrate on operational and clinical research that is directly relevant to the training programme of FM specialists and will improve clinical care rather than the involvement of basic science research. There is a network of clinics and hospitals under ECC that can be used for epidemiological and other operational research questions, for example in the management and follow up of NCD. However, the staff that is available to support students in conducting research and the backup facilities in terms of e.g. laboratory tests are still weak and needs to be build up in the future.

Some of the previous FD of the programme are now professors in South Africa or Malawi. It is necessary give the postgraduates an academic perspective in the DRC. There are efforts to build a research collaboration between UPC, SANRU and Kimpese. The department of FM is young and so far, the research conducted is very limited. However, the leadership and the residents of the programme would like to see a research department develop at the faculty.

During the discussions with various target groups, the interest in more research came up time and again. Overall all students conduct at least one research project. So far the faculty presented at international conferences and the first publications in the fields of FM are published.[10]

d. Results of the questionnaires for residents

General information and preparation

All 20 doctors in the postgraduate training for FM answered the questionnaire (see Annex II).

Of the 20 residents 3 are female and 17 male. The average age is 38 years, ranging from 31 to 48 years. All are Congolese and come from different parts from all over the country. They studied in different universities in DRC. Most of them finished their medical studies late at an average age of 30,5 years (range 26 to 42 years). After their studies they first for: 3 for the government, 7 for the church, 7 private and 1 abroad. Most of the residents worked in general medicine before. Between the end of the study and start of this postgraduate training in FM laid as an average of 4 years (range 0,5 to 10 years).

[10] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5645560/

Most residents heard of the programme from a FD or a colleague and applied in 2014. All residents had to pass an oral and written test before admission. Before the study four doctors signed a contract with a hospital where they will be working afterwards. On average the residents could improve their language skills during the study from ‚Fair' to ‚Good'.

Training of family doctors

On average the programme was evaluated between 'Good' and 'Excellent'.
There were no big differences between the training sites except Vanga hospital which got a ‚Fair'. On average all the training sites were well equipped.
Rotations during the training were as followed:

General Medicine (18 of 20 filled in) on average 39 weeks (range 24 to 56 weeks)
Surgery (18 of 20 filled in) on average 26 weeks (range 16 to 42 weeks)
Gynaecology/Obstetrics (17 residents filled in) on average 25 weeks (range 16 to 42 weeks)
Paediatrics (18 of 20 filled in) on average 28 weeks (big range 12 to 56 weeks, big differences)
PHC (16 residents filled in) on average 13 weeks (big range 4 to 32 weeks, big differences)
PH (15 residents filled in) on average 12 weeks (big range 4 to 24 weeks, big differences)

In ‚other departments' some residents filled in that they had also a time in Anaesthesia or Ophthalmology.

Most of the hospitals used national guidelines or specific guidelines of the hospitals. 15 residents said they used standard operating procedures, 4 said their hospital does not use them. If used many different areas were named, e.g. PH.

Most of the hospitals provided job descriptions but not in all of the departments. They were mainly given in PHC, PH, General Medicine and Paediatrics.
In general supervision and mentoring was rated as an average with 'Good':

General Medicine:	Excellent 8	Good 10	Fair 1	Poor 1
Surgery:	Excellent 5	Good 8	Fair 5	Poor 3
Gynae./Obst.:	Excellent 3	Good 14	Fair 3	Poor 1
Paediatrics:	Excellent 8	Good 10	Fair 2	Poor 1
PHC:	Excellent 5	Good 12	Fair 4	Poor 0
PH:	Excellent 3	Good 12	Fair 1	Poor 3

Those who worked in Ophthalmology and Anaesthesia rated it ‚Good' to ‚Excellent'.

The following aspects of FM were missed or under-represented by some residents:

Medical subjects (5): Psychiatry/psychosocial aspects; ORL; anaesthesia; dentistry; medical imaging

Public Health aspects (9): Health institution management (3) and hospital administration, management of the clinics by FM and not by nurses; project planning; project monitoring and evaluation

PHC (2): prevention in general (patients are coming late); research and publications by clinicians; project development in PHC

Family Medicine aspects (3): community involvement of the family physician; an own department for Family Medicine; conferences

Aspects of primary care/family medicine were overall well covered in the hospital setting (Excellent 2, Good 10, Fair 6, Poor 2) and professional skills well improved (Excellent 12, Good 6, Fair 2, Poor).

Theoretical training was overall good (Excellent 5, Good 12, Fair 2, Poor 1)

The interaction with the coordinator was very good (Excellent 11, Good 6, Fair 2, Poor 1).

Approximately half got a good practical experience with hospital administration in the following fields:

financial management 0
personnel management 5
project management and planning 7
communications 9
other fields 3
7 residents got no practical exposure at all.

Future plans

All residents plan to finish their studies in 2018.
As a next placement the residents want to work as following (more than one answer possible):

urban zone 3, rural zone 10,
DRC 9, abroad 0,
hospital 3, practice 5, others 2 (as teacher/professor for FM; int. NGO), don't know 2.

To the question: 'Will you return to one of the teaching hospitals in the future? '13 residents answered yes and 7 answered no.
Conditions to return to work in a teaching hospital are: higher salary 2, housing 3, allowances 2, possibility for development 17, others 3.
19 residents said that their hospital of placement benefited from the presence of trainees for FM. Reasons were:

the qualified doctor is free of charge (6),
patient care is improved (4),
the aspect of FM is introduced (6) and other reasons (3).

In 5 years the residents want to be (open question):

in DRC (6), rural area (4), abroad (1)
in a (private) practice (4)
be a Professor/PhD/teacher for FM (5)
do FM research or write a thesis (2)
work in a (teaching) hospital (5)
work for an international NGO (1)
managing a PHC programme (1)

This shows that most residents wish to stay in DRC and would like to contribute to the improvement of the local health system.

General situation in DRC

The general health situation in DRC was assessed as mainly fair or poor.
The main challenges are:

poverty and difficult access to HC (6),
shortness of qualified human resource, especially in rural areas (6);

shortness of medical material/equipment (3),
no health insurance (2),
to improve PHC/prevention and introduce FM in communities (4); others (4).

The FM programme can improve this situation by
training more FM and providing qualified specialists human resource for rural areas/communities (11)
field accompaniment/participatory supervision of FM (3)
introducing biopsychosocial aspect/FM principles (2)
managing resources, control health zones and lead PHC (2)
advocating before authorities (1)

The role of church hospitals in the future is seen as the following:
The churches have to play a very important role (7) in view of the quality of care, professional conscience, ethics and integral management of patients.
Church hospitals are highly esteemed and well organised and assure accessibility (3) and transparency (1) in the HCS of DRC.
Church hospitals apply holistic care (5), they treat of patient physically, morally and spiritually (2); they also provide staff training (2) and manage of resources (1).
They shall help the community by providing a medical solution, especially in rural areas (2). Their responsibility is to train doctors, esp. FD in the future (2) and promote PHC, prevention and health promotion (1).

Logistics of the training

The logistic support during the training was as following:
Excellent 1 Good 12 Fair 5 Poor 0

The housing was rated as
Excellent 2 Good 9 Fair 5 Poor 1 (3 payed themselves)

15/20 residents mentioned that their allowance was insufficient for survival. Specifically, they mentioned:
housing is not provided or salary too low for covering living costs and books (6)
extra-job to gain money affects the training (2)
allocation too small (1)

e. Results of the Focus Group Discussions (FGD) with the residents

Three FGD were held with the residents of Bukavu, Kinshasa and Kimpese. With the residents of Goma an internet conference was tried, but connection was bad. They answered the questions via email. The following is a summary of the three discussions and the emails.

The residents

Motives for choosing the FM specialisation are based in the holistic way the patient is seen. He/she is in the centre of the consultation and not the illness. Chronic illnesses, PHC with affordable care for all are of vital importance to FM. For the residents FM can make a difference in treatment and the health care system of the DRC.

Visions and dreams for their future are to have an excellent training level to transform their communities with more FD in health centres by sensitisation, prevention, curative care and research. They hope that the financial constraint will be alleviated and at least PHC is free of charge without a two class medicine. FD will be well established in the DRC by a network and associations and

acknowledged by patients and health staff alike and thus improve the picture of medical care in the DRC to the outside world as well.

The training

The following challenges were mentioned:

- Payment needs to be equal, sufficient and adjusted to the inflation; a lack of it results in demotivation of the residents.
- Financial resources for travelling, e.g. to conferences, are too small as well.
- Exchange between the residents of different sites needs to be improved. More meetings with professors and permanent internet access are lacking and so there is no continuous communication.
- involving medical students in the programme and rotations to the other sites were further wishes.

The following issues were difficult concerning the curriculum:

- missing topics are: mental health/psychiatry, palliative care, geriatric care, ORL, dermatology
- sometimes sacrificed to other topics are paediatrics, orthopaedics, ophthalmology, anaesthesia and surgery
- training in medical imaging, like sonar is also missing
- one training site cannot offer all topics – rotations would be good
- statistics in the first year and research from the second year onwards should be included
- already during their formation FD should be more involved in primary care and not in secondary care, like hospital work

The health care system

<u>In general</u>

As in the questionnaires in the FGD the general health service situation in DRC was judged to be poor. Church hospitals are getting fewer funding and are not that competitive and developing like private hospitals. Many doctors stay in the cities also because in rural areas problems with diagnostics, logistics, infrastructure and security remain. Therefore, there is a two class medicine: in rural areas the poor people have bad health services of the state, in urban areas the private sector flourishes because of wealthier people. Nepotism in getting a job within the state is a problem: Competence does not seem to count but more connections and tribal affiliation.

<u>Concerning FM</u>

The residents discussed that in the teaching hospitals other specialists do not understand the FM philosophy (esp. UEA) and PHC/growth cards because they do not work in rural areas. Sometimes there is not enough supervision by specialists. „You take from the specialists what you need. “

Fields that FD can improve:

- the relation between patient and doctor as a patient is not an illness but a partner.
- communication between the health centres
- standardisation of prescription and transfers to specialists
- documentation of vaccinations
- follow up of patients with chronic diseases; promotes the integration into administrative work
- advocacy: FD have a voice and can plea in front of the MoH and with community leaders
- access to care by introducing evidence based medicine and promoting social medicine
- research in PHC as a neglected field in research

- acceptance of FM by the community, here a need for SA to bring that philosophy to the health system in DRC.

Research projects

Current research projects of the residents in their fourth year are mainly chronic diseases, like diabetes, or PHC themes, like immunizations, and mother and child care.

Future work

Most residents see their future field of work on a community level or in a medical practice. Core areas will be prevention, health promotion, treatment of chronic diseases and PHC. A typical topic including all four areas is e.g. malnutrition in children.

PHC guidelines are not detailed enough and mainly done by nurses, who do it mechanically but not patient centred. FM can not only improve this but also strengthen the acceptance of the treatment of chronic diseases.

Forming of FM associations in the whole country is important for further promotion of this philosophy.

Some residents see their future on a more academic level saying that PHC in guidelines must be taught already at pre-graduate level and knowledge of students tested before being a doctor.

To be employed by the state is becoming rare if a doctor does not belong to the right tribe or does not have the right political connections.

Financing

The main aim for the residents' work is poverty reduction. Cost assumption for treatment is seen as a major problem: people cannot afford treatment and when they come to the hospital it is very late, which increases the costs in the end.

Financing this philosophy the responsibility of the government was discussed that reacts insufficiently and late. It should also be extended to the responsibility of the community and fresh ways of financing should be tried, like solidarity principles for mutuals: the poor contribute less than the rich. Consultation free of charge is not always good: small payments for each visit will further help to cover the costs.

f. Results of questionnaires with Family Doctors

The seven filled questionnaires of the postgraduate FD support the results of the questionnaires of the residents and the FGD. No new results or ideas were obtained.

5. Recommendations

The training programme for FM specialists at the UPC is a very important programme, not only for the university but for the health system in DRC and the improvement of the quality of care.
The programme is highly valued by the residents, family doctors, coordinators and training hospital supervisors. However, there is still a great need to show that the concept of Family Medicine contributes to improvement of primary care. Its potential is not recognised by MoH, medical board, or the local community.
Based on the evaluation results as outlined in the previous chapter, we want to make the following recommendations:

a. Improvement of Health Care

Hospital level

The programme clearly fills a gap in the hospital health setting. It contributes to the Sustainable Development Goal 3 in terms of backing to universal health coverage for DRC.
This evaluation confirms the results of 2009 and 2012 showing that hospitals benefit through the presence of the residents who are involved in daily patient care by improving access and quality of care and by disburdening other doctors.
From the 16 doctors, who finished in the previous period, 9 are employed in church hospitals, some are coordinating and supporting the FMP. This development is obviously a progress that has to be sustained and further developed, e.g. by giving FD more control over the management of data collection and research projects in PHC.

Family Practice and PHC

Since some of the FD are not having an opportunity for adequate employment, they started to develop Family Medicine Health Centres (as seen in chapter 4.b.) which is a good advance. But as it is not financially sustained by the state or the churches it relies on "auto-financement" (see later) by the patients and probably cannot provide access for the poorest in the communities. At the moment this development started only close to bigger communities or close to a bigger hospital (Kimpese, Kinshasa).
Therefore, the main question Prof Kintaudi asked remains: "*How can we send our doctors to the community – so that they can also be satisfied, raise their families? That is the reality, the challenge*."
Also, so far traditional PHC Programmes have not been linked to FD programmes and there is a lack of strengthening the first level of care. Health systems research could help to show the impact of FD on PHC in rural communities or in towns as a means to respond especially to the challenges of NCD.

Health care in rural areas

For all settings, it is vitally important that BftW continues the support of the training of FD. However, opportunities for appropriate employment has to be created for this cadre of staff:
We see here four major problems and suggestions to solve this:
<u>1. Testing of a Family Medicine Centre to strengthen Primary Health Care:</u>
Building a Family Medicine Centre in Kinshasa has two benefits: it would help the FD to offer their services to patients who can pay (and the FD would be satisfied and could raise their families) and to make the FM philosophy known and gain further reputation.
But the example of Dr Lukanu and Prof Kintaudi, founding the Kimpese Centre de Santé, shows the way forward in rural areas: they had to invest first in the community and hope that it will pay off or at least can sustain itself. And it did. Some of the services can be offered without payment by the patients because the state and private donors also stepped in (Picture 11).

So our recommendation is to start with two Health Centres in the community and ideally in a more remote area, where the next hospital is an hour or more away. The role of the FD would be to provide appropriate clinical care, and at the same time to link to PHC resources and strengthen health prevention and promotion.

2. Recruitment of FD

"*Those who come from rural areas are easier to go back, because they have roots*."

For the next study period 2018 to 2022 it would mean that poor doctors from rural areas should be trained and receive a scholarship with a clear bonding to return "home".

The 20 residents of this term are like a raw diamond because many of them are willing to go to rural areas. Especially the doctors in Bukavu who already founded their own association are keen to change something. 4 doctors could be recruited from their midst to start with a pilot project of 2 rural Family Medicine Health Centres.

3. Acceptance and support by the state and churches

Over the long run it should be the target that a project like this started by donors should be handed over to the state or churches. Advocacy work is needed as described later. At the same time, model projects must be implemented. Good advocacy will only work when we can show the impact. Therefore, advocacy requires results.

So far the FMP has strengthened training hospitals, but the end point must be the primary care doctor in the community that changes health at community level.

This will need some investment in the future to move beyond the present level of training, but to include a career path for FD.

4. Reliable data and research projects

Two questions out of the ToR were: 'How relevant was the programme in terms of improving village health work? Did the quality of medical care actually increase through the FM approach?'

Too few FM health centres like in Kimpese or in Luyindu started to see an obvious change that can be attributed to a FM approach. The next problem then is reliable qualitative and quantitative data before and after implementation of a FM health centre is not (yet) available.

Our suggestion would be to do a health and health care evaluation in a community setting if data is not available (indicators could e.g. be: nutritional status of children under 5; maternal mortality rate, questionnaires for patients and community leaders concerning quality aspects etc.) before the implementation of such a project and repeat it after 3 to 4 years. An economic evaluation must be included. Then it would be possible to clearly realize the changes made as well as the cost.

b. Curriculum and training

Overall the curriculum and training seems to be well adapted to the health care needs in DRC.

However, the level of training in PHC, mental health etc. can be improved and times in pure clinical care reduced. Quality training sites at community level that are well monitored must be created in order to get a good and reliable training environment for a future FD.

A few points for improvement are:

Change to a FMP that can be entered on a yearly basis

For somebody who is graduating in medicine and really ambitious to go on quickly with the specialization a waiting time of up to four years is an obstacle.

Adapt the selection criteria for scholarships

- Accept preferably highly motivated doctors from rural areas, who cannot pay for themselves.

- Involve the training facilities in this process: More and more stagières are also working for a longer period in these hospitals, supervisors shall find and recommend those who are motivated and suitable for FM.
- Analytical and conceptual thinking of a future student should be a criterion for a scholarship as research will be a part of his/her future work.

Leadership and coordination

The leadership and coordination of the programme was rated very positively and is one of the strengths of the programme. However more regular communication/meetings of the leaders at UPC and the residents and coordinators at the training hospitals is needed and could be arranged by improved internet access and platforms like e.g. Blackboard or Moodle.

Equipment

To provide and maintain at least one computer with permanent and fast internet access in a library should be a minimum of equipment provided.

Remuneration

Payment needs to be equal, sufficient and adjusted to the inflation as a lack thereof results in demotivation of the residents. Also financial resources for travelling, e.g. to conferences, are too small.

Standardisation of training level

A difficulty with at the moment eight different training sites is to keep the same level of training for all residents. It is not an issue with internal medicine or surgery but rather with smaller subjects missing in some places like e.g. ORL. Rotations to the different sites could improve this.

To be trained in a smaller and rural facility for a period of time will show effectively if the learned basics in Surgery and Gynaecology can be administered correctly and if the knowledge in PHC and PH is well supported by the system in the district. On the other hand, a resident from a rural area can benefit from a bigger hospital as well. There they can learn from specialists and expand their capacity and experience.

As DRC is a vast country it will not be easy to arrange this financially and logistically.

Networking with other universities

At present UPC works pretty much as a stand-alone university with few partnerships with others like MEDUNSA. Specifically, on a local or sub-regional level, the university can benefit from exchange programmes and networking. There are also international network opportunities such as the ESTHER programme[11] in Europe and research opportunities with other countries. Rotations looking at residents being placed at other university hospitals to further their experience and exposure. This would need to be funded accordingly as it involves travel, stay and tutorship for both sides.

Other countries are also implementing FM programmes. South Africa has a long history of FM, but also Kenya and other African countries.

There is a need for more publications and a regular FM meeting across countries in order to strengthen primary care.

Research

At the first FM conference in 2012 the role of operational research, monitoring and evaluation was stressed as well as the need to document and publish the results. UPC has made a start to set up clinical and operational research projects in FM and the first articles have been published[11].

This effort can be strengthened through the setting up of an epidemiology and statistics department for FM that will teach the residents from the first year on in epidemiology and statistics and support their research and will facilitate results that are internationally competitive.

[11] https://www.giz.de/en/worldwide/41578.html

It is not only the problem of FD but also of medical students, so that their curriculum too, needs to be adjusted to the need of promoting research capacity.

c. Advocacy and public relations work

Aims of a newly established advocacy unit would be:
- to promote the acknowledgement of FM with the medical council
- to make the philosophy of FM known by different media to other specialists, nurses, undergraduate students etc.
- to support FM associations and to organize conferences or meetings of FD on a national and international level
- fundraising with possible donors in the state, church and private sector and internationally
- to stay in touch with the MoH and the leadership of church facilities to recruit those candidates that can be taken on by the public service

All this however, must be based on facts and data, so health systems research is required in order to change the perception of key stakeholders.

d. Finances

The main problem of the health system in DRC for the patients is that of “auto-financement”:
Most income of the health care facilities needs to be created through patient fees. This results in coming late of patients with more severe disease and complications and in the end more expensive treatment or fatal cases on one hand and increase on poverty on the other hand.
One aim of the SDG agenda is not to fall into poverty due to seeking health care.
New ways must be found of additional funding in order to ensure good accessibility for the local community. UPC must discuss different ways of fundraising in different settings. The following possibilities are some examples:
- donations; e.g. for special programmes like women suffering from sexual violence at Panzi Hospital
- government and church support through advocacy work (as above)
- health insurance schemes, e.g. through workplaces in urban settings
- community based financing schemes
- international programmes of funding for training and capacity building

6. Conclusions

A specialist training stands and falls with the teaching staff, their qualification and motivation. In general, the training in Family medicine at UPC is very good. The main development after our evaluation in 2009 is that all graduated Family Doctors from 2010 are now working in DRC. The 20 residents of this term want to stay as well and are highly motivated to work in the communities of rural areas.

The challenge for the coming years will be to find ways to make this happen.

The main pillars of improving and strengthening the training at UPC are to expand regular communication and equipment, e.g. by continuous internet access. The standardisation of the training levels by regular rotations of students poses a big logistic and financial obstacle. To establish a research department in the FMP is not only necessary for the training but gives young doctors also a career path within the university.
Operational research results can further prove the impact that a Family Medicine approach has on health data like morbidity and mortality of different diseases. This is important in encouraging donors to fund residents of the programme and Family Doctors.
It is a task for advocacy workers to convince leaders of state, church and the private health sector of the benefit of the Family Medicine approach.

In general, auto-financing of health care by patients presents the biggest impediment for access to care in the DRC. New ways of health care financing should play a role in planning the support for the next term of the Family Medicine Programme.
There is a need for international networking for family medicine especially in the light of universal health coverage. There are lessons to be learnt from other countries and in terms of advocacy at national and international level, this may be an important tool.

Annex I – Visiting timetable

Visiting timetable of Dr I Fernández visit from 06th to 14th November 2017

Time	05. Nov	Mo 06/11/17	Tu 07/11/17	We 08/11/17	Th 09/11/17	Fr 10/11/17
09:30 - 11:30		Interview with Dr Lukanu: Background	Meeting with Prof Matanda, Dean of the Faculty of Medicine	Meeting with 4 registrars of Kinshasa, Dr Lukanu, FGD 2	Conference call or email questionnaires with Goma registrars	**Travel to Kimpese**
11:45 - 13:00		Interview with Dr Lukanu: Current situation, curriculum, students	Visit of UPC health center and Family Doctors	Meeting with 4 registrars of Kinshasa, Dr Lukanu, FGD 2	and FD Dr Fatuma and Dr. Masoda in Goma	
		venue: UPC	*venue: UPC*	*venue: UPC*	*venue: UPC*	
13:00 -		LUNCH	LUNCH	Visit and interview of Prof Kintaudi	LUNCH	LUNCH
		venue: UPC	*venue: UPC*	*venue: UPC*	*venue: UPC*	*Kimpese Hospital*
14:00 - 16:00		Discussion with Dr Lukanu and planning for the week	Discussion with Dr Lukanu, emailing of questionnaires to registrars and FD in Nebobongo, Vanga, Bukavu	Visit to Luyindu Medical Center (site of one registrar in Kinshasa) and Dr Mireille (FD) in a new family clinic in community	Visit to Dr Kakese, a FD working in private clinic in Kinshasa	Meeting with 4 registars and with HOH, Dr Mahema or Dr Impose
		venue: UPC	*venue: UPC*	*Luyindu MC, Kinshasa*	*City Center Kinshasa*	*Kimpese Hospital*
18:00	**Arriving**					

Sa 11/11/17	Su 12/11/17	M0 13/11/17	Tu 14/11/17
Meeting with Dr Ntontolo, the coordinator of Kimpese site	Visit to Kimpese Clinic	Discussion on the future, Dr Lukanu	Preparation for Debriefing
FGD 3 (3 registrars of Kimpese 1 registrar of Tjikaji, Dr Lukanu, Dr Ntontolo)	**Travel to Kinshasa**	Discussion on the future, Dr Lukanu	Debriefing to Prof. Matanda, Prof. Kintaudi, Prof. Mapunza and Dr. Lukanu
Kimpese Hospital		*venue: UPC*	*venue: UPC*
LUNCH	LUNCH	LUNCH	LUNCH
Kimpese Hospital		*venue: UPC*	*venue: UPC*
Visit of Kimpese Hospital with Dr Ntontolo - Free time		Evaluation of qualitative data and preparation for Debriefing	**Departure**
Kimpese Hospital		*venue: UPC*	

a) Questionnaire for current residents

Questionnaire pour les stagiaires du programme de formation des Family Médecins

Chers collègues, vous avez participé au programme de formation des Family Médecins (FM). Avec ce questionnaire, nous sollicitons votre aide pour évaluer ce programme. En premier lieu, l'évaluation est un outil d'apprentissage et de planification de mesures supplémentaires en fonction de la situation sur le terrain. Soyez assuré que toutes les informations données seront traitées strictement confidentielles. Nous apprécions beaucoup votre temps et votre contribution à cet important exercice.

Informations générales et préparation

No	*Questions*	*Réponse ou coche*
01.	Sexe	Homme Femme
02.	Année de naissance	
03.	Nationalité	
04.	Ville et région de naissance	
05.	Plus haut niveau de scolarité	
06.	Début de votre formation médicale	Année:
07.	Fin de votre formation médicale	Année:
08.	Dans quelle université avez-vous faites vos études de médecine ?	Ville/Pays:
09.	Où avez-vous commencé le travail après votre formation universitaire ?	Gouvernement Eglise Autre (précisez, s.v.p.)
10.	Combien de temps avez-vous travaillé avant votre formation FM?	années
11.	Dans quel domaine avez-vous travaillé avant votre FM?	Médecine Générale Chirurgie Obstétrique /Gynécologie Pédiatrie Soins de santé primaire Santé publique Autres (précisez s.v.p.)
12.	Comment avez-vous entendu parler du programme FM?	
13.	Quand avez-vous présenté votre demande pour la première fois ?	
14.	Quand avez-vous été admis au programme?	
15.	Comment avez-vous été sélectionné pour le programme?	
16.	Avez-vous signé un accord avec un hôpital pour y travailler après votre formation?	Oui Non Si oui, de quel hôpital s'agissait-il?
17.	Comment étaient vos compétences linguistiques avant le cours?	Excellent Bon Passable Mauvais
18.	Comment les évaluez-vous maintenant?	Excellent Bon Passable Mauvais

Formation des médecins de famille

No	*Questions*	*Réponse ou coche*
19.	Comment avez-vous trouvez la formation en général ?	Excellent Bon Passable Mauvais
20.	Où avez-vous fait votre formation pratique?	Nom de l'hôpital
21.	Dans quel département avez-vous effectué une rotation pendant votre formation? Combien de temps avez-vous travaillé dans chacun de ces départements ? Indiquez le nombre de semaines, s.v.p.	Département : Semaines : Médecine Générale Chirurgie Obstétrique /Gynécologie Pédiatrie Soins de santé primaires Santé publique Autres (précisez s.v.p.)

22.	Dans quelle mesure votre hôpital était-il équipé?	Excellent Bon Passable Mauvais
23.	Quelles directives avez-vous utilisé dans votre hôpital ?	Directives nationales de traitement Lignes directrices spécifiques à l'hôpital Autres Précisez s.v.p.)
24.	Votre hôpital avait-il des procédures normalisées?	Oui Non
25.	Dans quel domaine avez-vous eu des procédures standards?	Nommez-les s.v.p.
26.	Avez-vous reçu une description de poste pendant vos stages dans les hôpitaux ? Si oui, dans quels départements ?	Oui Non Médecine Générale Chirurgie Obstétrique /Gynécologie Pédiatrie Soins de santé primaire Santé publique Autres (précisez s.v.p.)
27.	Comment évaluez-vous la supervision et le mentorat que vous avez reçus dans chacun des départements?	Médecine Générale Excellent Bon Passable Mauvais Chirurgie Excellent Bon Passable Mauvais Obstétrique / Gynécologie Excellent Bon Passable Mauvais Pédiatrie Excellent Bon Passable Mauvais Soins de santé primaire Exc. Bon Passable Mauvais Santé publique Excellent Bon Passable Mauvais Autres (précisez s.v.p.)
28.	Combien d'appels avez-vous dû faire dans un mois au cours de vos placements à l'hôpital? Veuillez donner le chiffre pour chaque département.	Médecine Générale Chirurgie Obstétrique /Gynécologie Pédiatrie Soins de santé primaire Santé publique Autres (précisez s.v.p.)
29.	Quel aspect de la médecine familiale était sous-représenté ou absent de la formation ?	
30.	Comment les aspects des soins primaires et de la médecine familiale ont-ils été couverts en milieu hospitalier ?	Excellent Bon Passable Mauvais
31.	Comment le programme a-t-il amélioré vos compétences professionnelles ?	Excellent Bon Passable Mauvais
32.	Comment évaluez-vous la formation théorique ?	Excellent Bon Passable Mauvais
33.	Comment a été votre interaction avec le coordinateur de la formation?	Excellent Bon Passable Mauvais
34.	Avez-vous acquis une expérience pratique dans l'administration hospitalière ou de district ?	Oui Non Excellent Bon Passable Mauvais
35.	Dans quel domaine d'administration avez-vous eu une exposition pratique?	Gestion financière Gestion du personnel Gestion de projet et planification Communication Autre champs précisez s.v.p.)

Plans futurs

No	*Questions*	*Réponse ou coche*
37.	Quand allez-vous finir votre formation MF?	Année
38.	Où voulez-vous travailler comme prochain placement?	Zone urbaine Zone rurale RDC A l'étranger (précisez s.v.p.) Hôpital Cabinet Autres (précisez s.v.p.)
39.	Reviendrez-vous à un des hôpitaux d'enseignement à l'avenir ?	Oui Non Je ne sais pas
40.	Quelle est la condition pour que vous travailliez dans un hôpital d'enseignement ?	Paiement élevé Logement Indemnités Possibilité de développement Autres (précisez s.v.p.)
41.	Pensez-vous que votre hôpital de placement a bénéficié de la présence des stagiaires pour la MF ?	Oui Non Si oui, spécifié s.v.p.:
42.	Où voulez-vous être en 5 ans?	

Situation générale en RDC

No	*Questions*	*Réponse ou coche*
43.	Comment évaluez-vous la situation sanitaire générale dans votre région en RDC ?	Excellent Bon Passable Mauvais
44.	Quels sont le défis principaux?	
45.	Comment le programme de MF pourrait-il améliorer la situation ?	
46.	Comment voyez-vous le rôle des hôpitaux de l'Eglise dans le futur ?	

Logistique de la formation

No	*Questions*	*Réponse ou coche*
47.	Comment avez-vous trouvez le soutien logistique pendant la formation ?	Excellent Bon Passable Mauvais
48.	Comment était votre logement?	Excellent Bon Passable Mauvais
49.	Votre allocation était-elle suffisante pour vous soutenir pendant ce temps?	Oui Non Si non spécifiez s.v.p.

Autre commentaires ?

UN GRAND MERCI

b) Questionnaire for Family Medicine specialists

Questionnaire pour les médecins du programme de formation des Family Médecins

Chers collègues, vous avez participé au programme de formation des Family Médecins (FM). Avec ce questionnaire, nous sollicitons votre aide pour évaluer ce programme. En premier lieu, l'évaluation est un outil d'apprentissage et de planification de mesures supplémentaires en fonction de la situation sur le terrain. Soyez assuré que toutes les informations données seront traitées strictement confidentielles. Nous apprécions beaucoup votre temps et votre contribution à cet important exercice.

Informations générales et préparation

No	*Questions*	*Réponse ou coche*
01.	Sexe	Homme Femme
02.	Année de naissance	
03.	Nationalité	
04.	Fin de votre formation de Family Médecin	Année:
05.	Où avez-vous travaillé après votre formation de Family Médecin?	Précisez, s.v.p.
06.	Combien de temps avez-vous travaillé avant votre formation FM?	années
07.	Avez-vous signé un accord avec un hôpital pour y travailler après votre formation?	Oui Non Si oui, de quel hôpital s'agissait-il?

Formation des médecins de famille

No	*Questions*	*Réponse ou coche*
08.	Comment avez-vous trouvez la formation en général ?	Excellent Bon Passable Mauvais
09.	Où avez-vous fait votre formation pratique?	Nom de l'hôpital
10.	Dans quel department avez-vous effectué une rotation pendant votre formation?	Département : Médecine Générale Chirurgie Obstétrique /Gynécologie Pédiatrie Soins de santé primaires Santé publique Autres (précisez s.v.p.)
11.	Comment évaluez-vous la supervision et le mentorat que vous avez reçus dans chacun des départements?	Médecine Générale Excellent Bon Passable Mauvais Chirurgie Excellent Bon Passable Mauvais Obstétrique / Gynécologie Excellent Bon Passable Mauvais Pédiatrie Excellent Bon Passable Mauvais Soins de santé primaire Exc. Bon Passable Mauvais Santé publique Excellent Bon Passable Mauvais Autres (précisez s.v.p.)
12.	Quel aspect de la médecine familiale était sous-représenté ou absent de la formation ?	
13.	Comment les aspects des soins primaires et de la médecine familiale ont-ils été couverts en milieu hospitalier ?	Excellent Bon Passable Mauvais
14.	Comment le programme a-t-il amélioré vos compétences professionnelles ?	Excellent Bon Passable Mauvais
15.	Comment évaluez-vous la formation théorique ?	Excellent Bon Passable Mauvais

16.	Comment a été votre interaction avec le coordinateur de la formation?	Excellent Bon Passable Mauvais
17.	Avez-vous acquis une expérience pratique dans l'administration hospitalière ou de district ?	Oui Non Excellent Bon Passable Mauvais
18.	Dans quel domaine d'administration avez-vous eu une exposition pratique?	Gestion financière Gestion du personnel Gestion de projet et planification Communication Autre champs précisez s.v.p.)

Plans futurs

No	*Questions*	*Réponse ou coche*
19.	Reviendrez-vous à un des hôpitaux d'enseignement à l'avenir ?	Oui Non Je ne sais pas
20.	Quelle est la condition pour que vous travailliez dans un hôpital d'enseignement ?	Paiement élevé Logement Indemnités Possibilité de développement Autres (précisez s.v.p.)
21.	Pensez-vous que votre hôpital de placement a bénéficié de la présence des stagiaires pour la MF ?	Oui Non Si oui, spécifié s.v.p.:
22.	Où voulez-vous être en 5 ans?	

Situation générale en RDC

No	*Questions*	*Réponse ou coche*
23.	Comment évaluez-vous la situation sanitaire générale dans votre région en RDC ?	Excellent Bon Passable Mauvais
24.	Quels sont le défis principaux?	
25.	Comment le programme de MF pourrait-il améliorer la situation ?	
26.	Comment voyez-vous le rôle des hôpitaux de l'Eglise dans le futur ?	

Logistique de la formation

No	*Questions*	*Réponse ou coche*
27.	Comment avez-vous trouvez le soutien logistique pendant la formation ?	Excellent Bon Passable Mauvais
28.	Comment était votre logement?	Excellent Bon Passable Mauvais
29.	Votre allocation était-elle suffisante pour vous soutenir pendant ce temps?	Oui Non Si non spécifiez s.v.p.

Autre commentaires ?

UN GRAND MERCI

Annex III - Questions in Focus Group Discussions

1) Why did you choose to participate in this programme?
2) What are your experiences in the hospital, where normally other specialists were trained?
3) What research do you do in your projects?
4) What are your priorities in FM and what do you want to change?
5) How will the training help you in your professional career? Where will you apply for a job after the training?
6) How will this training improve quality of medical care?
7) How can it improve the poor access to medical care?
8) What changes did you observe in DRC in general in the last 3 years in relation to health care, health care system, quality, infrastructure, human resource?
9)What is your vision/dream/miracle?
10) What needs to change in the training?

Annex IV – Curriculum 2014 - overview

SECTION 1

ROTATION DES MEDECINS RESIDENTS EN 4 ANS

A. DUREE PAR SERVICE

SERVICE	DUREE
Médecin Interne (+ Dermatologie et avec neuropsychiatrie)	8 mois
Chirurgie Générale + Anesthésiologie	8 mois
Ophtalmologie	2 mois
Gynéco-obstétrique	6 mois
Pédiatrie+ ORL	8 mois
Soins de santé primaires	5 mois
Congé	3mois(A2A3A4)
Recherche et rédaction Mémoire/ Défense	9 Mois

B. PROGRAMME ANNUEL

NIVEAU	DUREE
1ière année :	
- Chirurgie Générale et anesthésie	2 mois
- Pédiatrie	3 mois
- Gynéco-Obstétrique	2 mois
- Médecine Interne	3 mois
- Soins de santé primaires + Init. recherc	2 mois
2ième année :	
- Chirurgie générale	3 mois
- Pédiatrie	2 mois
- Médecine Interne	2 mois
- Gynéco-Obstétrique	3 mois
- Soins de santé primaires+épidem.	1 mois
- Congé	1 mois
3ième année:	
- Chirurgie générale	2 mois
- Ophtalmologie	2 mois
- Médecine Interne	1 mois
- Gynéco-Obstétrique	2 mois
- Pédiatrie	2 mois
- Soins de santé primaires + Gestion	2 mois
- Congé	1 mois
4ième année:	
- Médecine interne	2 mois
- Pédiatrie	1 mois
Chirurgie	Selon le besoin
MI	Selon le besoin
GO	Selon le besoin
Péd	Selon le besoin

SECTION 3

RESUME DES COURS ET CHARGE HORAIRE.

COURS	PERIODE	VOLUME HORAIRE
ANNEE 1:		
• Principes, fondation de la Médecine de Famille,(30h)		30
• La consultation & Le raisonnement clinique (60h)		60
• Les assignements en Médecine de Famille[2] (15h)		15
• Médecine basée sur l'évidence et lecture critique de la littérature scientifique		30
• Sciences Sociales appliquées en Médecine (I)		30
• Croissance et Développement humain		30
• Les Compétences cliniques (ou Pratique Clinique) en Médecine de Famille		30
• Aptitudes Médecine Interne et Pédiatrie : Maladies les plus fréquentes, VIH/SIDA, Paludisme. TB, HTA, Diabète,....		45
• Aptitudes Chirurgicales		30
• Aptitudes en Gynéco-Obstétrique (Urgences, Curettage, Hystérectomie, ligature tubaire etc).		30
• TOTAL		360

• [2] Ce sont des 12 taches sous formes de publications et d'un niveau acceptable exige les 3 premières années et qui sont présentées sous forme d'études de cas, de projets d'amélioration de la qualité, d'évidence médicale et de revue systématique de la littérature.

ANNEE 2 :		
• Ethique médicale appliquée et Médecine légale		30
• Médecine basée sur l'Evidence et Critique de la littérature Médicale		30
• La famille		15
• Méthodes de recherche en Médecine		60
• Prévention et dépistage de masse dans la communauté		15
• Sciences sociales appliquées (II)		30
• Thérapeutique ou Aptitudes Cliniques II		120
• Gestion et organisation des services de santé		30
• Rédaction d'un article		15
• Classification internationale des soins primaires et dossier médical informatisé		15
		360
ANNEE 3 :		
• Prophylaxie des maladies transmissibles		30
• Promotion de la Santé		30
• Management et Organisation des Services de Sanitaire		30
- Gestion du Personnel		15
- Gestion des Médicaments		120
- Gestion des ressources matérielles et finances		45
• Aptitudes cliniques (III) :		60

• **ANNEE 4 :** Ce temps sera consacré à finaliser les taches restantes, le projet de recherche et les compétences cliniques. Le diplôme de master ne sera délivré qu'à l'étudiant qui aura complété avec succès l'examen. La dissertation et toutes les taches.		

6. COMPETENCES ATTENDUES :

6.1. COMPETENCES EN GYNECO - OBSTETRIQUE

1ère année

- Sémiologie en gynécologie et obstétrique
- Explorations en gynécologie et obstétrique
- Les consultations prénatales

2ème année

- Mise au point des pathologies
- Préparations des interventions chirurgicales
- Les références : critères
- Accouchements

3ème année

- Les actes chirurgicaux ou interventions chirurgicales

4ème année

Recherche et mémoires sur

- Audit des morts en gynécologie et obstétrique
- Statistiques d'accès aux CPN
- Statistiques des pathologies et cancers gynécologiques,
- Statistiques des interventions gynécologiques,
- Statistiques des accouchements.

CONTENUS DES COURS

A. GYNECOLOGIE

1. SEMIOLOGIE GYNECOLOGIQUE

- Examen des seins
- Examen de l'abdomen
- Examen gynécologique (speculum et toucher vaginal)

2. EXPLORATIONS EN GYNECOLOGIE

- Frottis vaginal
- Echographie
- Cœlioscopie
- Hystérosalpingographie
- Spermogramme
- Biopsie du col et de l'endomètre

3. PATHOLOGIES MAJEURES

- Les troubles du cycle menstruel
- Les leucorrhées
- Les tumeurs mammaires
- Le cancer du col
- Le cancer de l'endomètre
- Le myome utérin
- Les kystes ovariens
- GEU
- La stérilité
- La planification familiale
- La ménopause
- La puberté
- Les violences sexuelles/ viols
- Les IST/ VIH- SIDA
- Les fistules
- Les avortements
- Pathologies molaires
- Les bartholinites
- Consultation prénuptiale

4. INTERVENTIONS EN CHIRURGIE

- Hystérectomie
- Myomectomie
- Curetage et aspirations
- Mastectomie
- Kystectomie
- Ligature des trompes
- Salpingectomie
- Incision et drainage des abcès de Bartholin
- Ablation des polypes cervico et endométriaux
- Hydrotubations

B. OBSTETRIQUE

1. SEMIOLOGIE

- Anamnèse
- Manœuvres de Léopold

2. EXPLORATIONS EN OBSTETRIQUE

- Test de grossesse
- Echographie
- Monitoring obstétrical (NST, OCT)
- Score biophysique de Manning

3. CONSULTATIONS PRENATALES

- Objectifs
- Paramètres foetomaternels de surveillance de la grossesse
- Pronostic de l'accouchement

4. ACCOUCHEMENTS

- Paramètres foeto-maternels de surveillance du travail
- Elaboration et interprétation du partogramme
- Les anomalies du travail
- Thérapeutique obstétricale : tocolyse ; induction du travail ; rupture des membranes ; SONU ; SMNE ; PTME ; épisiotomie ; ventouse ; forceps.

5. INTERVENTIONS EN OBSTETRIQUE

- Césarienne : indications ; techniques ; préparation ; complications
- Cerclage

6. PATHOLOGIES GRAVIDIQUES

- Pré éclampsie
- Diabète et grossesse
- Vomissements incoercibles
- Accouchements prématuré
- Malaria et grossesse
- Anémie et grossesse
- Hémorragies du 3ème trimestre : DPPNI ; Pplacenta praevia ; rupture utérine
- Hémorragies du post-partum
- Mort in utéro
- Rupture prématurée des membranes
- Souffrance fœtale