NURSING EDUCATION PARTNERSHIP INITIATIVE (NEPI) IN THE DEMOCRATIC REPUBLIC OF CONGO

ASSESSMENT OF NURSING AND MIDWIFERY EDUCATION AND TRAINING CAPACITY AT SEVEN TRAINING INSTITUTES IN THE DEMOCRATIC REPUBLIC OF CONGO

SYNTHESIS REPORT

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Acronyms and Abbreviations

A0/L2	Licencié/Bachelors' degree
A1/G1-3	Graduat, année académique/classe 1-3/ advanced diploma program/ higher education graduate
A2	Formation professionnelle secondaire/ professional training at secondary school/enrolled nursing or midwifery level/secondary education graduate
CDC	United States Centers for Disease Control and Prevention
CH	Centre Hospitalier
CPP	Chargés des Pratiques Professionnelles/Clinical trainers, Instructors or Supervisors
CS	Centre de Santé
DEA/DES	Diplôme d'Etudes Approfondies/Diplôme d'Etudes Spécialisées/Post-graduate training equivalent to Honors and Masters' programs respectively in Belgium
DRC	Democratic Republic of Congo
EASI	Enseignement & Administration en Soins Infirmiers/Nursing Education & Administration
HGR	Hôpital General de Reference/General Referral Hospital
HRH	Ressources Humaines pour la santé/Human Resources for Health
HRSA	Health Resources and Services Administration
ICAP	International Center for AIDS Care and Treatment Programs
ICT	Information communication technologies
IEM	Medical Education Institute
IMCK	Christian Medical Institute Kasai
ISTM	Institut Supérieur des Techniques Médicales/Higher Education Institute of Medical Technology (Nursing, Midwifery and allied Health Sciences Training)
IT	Information technology
ITM	Institut des Techniques Médicales (niveau secondaire)/Institute of Medical Technology (Secondary School Level)
Km	Kilomètre/ Kilometer
MD	Médecin/Medical Doctor

MINESU/MoHE	Ministère de l'Enseignement Supérieur et Universitaire/ Ministry of Higher and University Education
MSF	Médecins Sans Frontières / Doctors without Boarders
MSP/MoPH	Ministère de la Santé Publique/Ministry of Public Health
NEPI	Nursing Education Partnership Initiative
NGO	Non-Governmental Organization
PEVP	Expanded Program on Immunization
PMI	Maternal and Child Protection
PNMLS	Multisectoral National AIDS Control Program
PNSR	National Reproductive Health Program
RDC/DRC	République Démocratique du Congo/Democratic Republic of the Congo
SPSS	Statistical Package for the Social Sciences
TP	Practical Work
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

1. INTRODUCTION

1.1 Background

The Government of the Democratic Republic of the Congo (DRC) is implementing NEPI through a partnership between the Ministry of Public Health (MoPH), the Ministry of Higher and University Education (MoHUE), the University of Columbia/ International Center for AIDS Care and Treatment Programs (ICAP), Capacity*Plus*, the United States Center for Disease Control and Prevention (CDC), and other partners. NEPI is a United States Government initiative that aims to strengthen nursing and midwifery education systems in order to increase access to quality health care in the DRC. This is in response to the challenges identified during the development of the five-year human resources for health (HRH) Strategic plan by the MoPH in 2011 which are:

i. Absence of a national training/educational plan that has resulted in the proliferation of training institutions and excessive production of certain categories of professionals, and under production of others (e.g. midwives)

ii. Poor coordination among the key stakeholders responsible for different aspects of HRH (MoH, MoHE, Budget, Finance…)

iii. Inadequate quality of health worker education

iv. Poor alignment of education and training programs with population health needs

In March 2012, an assessment of the capacity of seven DRC training institutions for nurses and midwives was conducted by CapacityPlus in collaboration with the partners mentioned above. The assessment aimed to determine the strengths and weaknesses among the multiple dimensions of education and training in the DRC, such as faculty, curriculum, school management, infrastructure, materials and equipment and clinical practice sites in order to guide the NEPI steering committee, which includes national policy makers, in the development of a strategic response aimed at gradually expanding the quantity and quality of nurses and midwives in the country.

1.2 Methods

The capacity assessment consisted of a desk review of key documents related to the education and training of nurses and midwives in the DRC, a series of interviews with key stakeholders in nursing and midwifery education, as well as in-depth assessments at seven training institutes with nursing and/or midwifery programs. The results of the desk review and summary of key stakeholder interviews are

presented in separate reports. This report summarizes the findings of the detailed assessments at seven institutes.

Qualitative and quantitative methods were applied to collect data from a variety of sources at each school. They included structured interviews with 28 managers of schools and 6 directors of clinical training sites, self-administered questionnaires with 111 educators and 438 students as well as the structured observation of the infrastructure, materials and equipment at each institute and its main clinical practice site. Nine categories of educational capacity, as reflected in the attached synthesis matrix (Annex 3), were used to structure and guide the assessment at each school. The categories are: educators; students; financial management of the institution; infrastructure; materials and equipment; curriculum; clinical practice; quality assurance; and partnership and exchange.

2. STRUCTURE OF THE EDUCATIONAL PROGRAMS ASSESSED

2.1 Overview

According to the desk review report, the nursing and midwifery education system in the DRC has three levels:

(i) Lower healthcare cadres: accessible after two-year post-primary education to train nurse and midwives' assistants. The current tendency is to phase out this level.

(ii) Secondary school (IEM and ITM A2 professional) program. Schools under this category are governed by the Ministry of Health. Candidates with a-three year post-primary education are admitted. On completion of a-four year full-time training program, graduates are awarded an enrolled certificate level in nursing, midwifery, laboratory, pharmacy, anesthesia etc. The practical training begins generally in first years.

(iii) Institutes of higher education (ISTM A1 and A0/L2) professional programs. This category is governed by the Ministry of Higher and University Education. Some of the schools offer a three-year full-time program (advanced diploma A1). Others offer the same program plus a two-year full-time program (A0/L2/degree program), making it five-year program in total depending on the field of the study and/or specialty area of choice. A candidate for the latter program must have completed an A1, three-year program. Graduates of these programs are awarded an advanced diploma (A1) level or a "L2/Licence" that is equivalent to a bachelors' degree.

2.2 Institutes assessed

The assessment of the capacity of nursing and midwifery schools focused on seven schools in total, which are found in two levels as described below:

(i) Type 1: Secondary school professional training (IEM/ITMs) - A2 programs

IEM Kamalondo: The school is located in Lubumbashi in the Katanga Province. Established in 1936, IEM Kamalondo is a public, non-for-profit institution. It offers five programs (nursing, midwifery, laboratory, pharmacy assistant and sanitation technician). The school is mixed but predominantly female. The number of students admitted during the year preceding the survey was 157 (110 females) in the nursing program and 79 (73 females) in the midwifery. The number of graduates from nursing program during the same year was 31 (20 females). There were no reported graduates from the midwifery program.

ITM Kintambo: Located in urban area of Kinshasa, it was created in 1924. It only offers nursing program (A2). This is a public institution that was transferred to the management of the Catholic Church. A total of 92 students (86 females) were admitted and 33 graduates (32 females) in total were recorded during the year preceding this survey.

ITM Tshikaji: This private, non-for-profit and faith-based school was established in 1954 by the Presbyterian Church. It is attached to the referral hospital called Bon Berger Tshikaji. It is located at about 9 km from Kananga, the administrative city of the Province of Kasai Occidental. The school offers nursing and laboratory programs only. Of the 25 nursing students who were admitted to the program last year, 15 were female. The school recorded 12 (7 females) nursing graduates during the year preceding this survey.

(ii) Type 2: Institutions of higher learning (ISTMs) - A1 and A0/L2 programs

ISTM Kinshasa: This is the largest school of nursing and midwifery in the country. It had long functioned as a school within the Faculty of Medicine of the University of Kinshasa before it was established as an autonomous public non-for-profit institution in 1970. It offers nine nursing science programs in total (nursing, midwifery, anesthesia and resuscitation, pediatrics, neuropsychiatry and education and nursing administration (EASI). In addition, the school offers eight allied health sciences programs (management of health institutions, medical imaging, laboratory technology, physiotherapy, nutrition and dietetics, health and sanitation, technology and pharmaceuticals and community health). In the past year, 2,535 new students (2,031 females) were admitted to the general nursing (A1) followed by 92 students (83 females) admitted to the midwifery and 38 new students (28 females) admitted to the pediatric program (A1). The lowest new enrollment was in the neuropsychiatry with only 6 new students (2

females). The numbers of graduates in the year preceding the survey are as follows: 653 (511 females) in general nursing, only 17 (14 females) in midwifery and 9 (4 females) in Education and administration.

ISTM Lubumbashi: This school was established in 1994 within the Faculty of Medicine of the University of Lubumbashi and then became an autonomous public institution in 2002. It offers six programs in total (nursing, midwifery, nutrition, laboratory, management of health institutions and education and administration of nursing (EASI). The number of new students admitted last year were 1709 (1147 females) in general nursing (A1) with 856 graduates (628 females). In midwifery (A1), 224 new students were admitted to the program (all females), with 137 graduates (129 female). In the EASI (degree/L2), 172 new students were admitted (72 females), with 55 graduates (34 males).

ISTM Rutshuru: This is a new public institution established in 2008 as an extension of the ISTM Goma, becoming autonomous in 2010. It is located at about 70 km from Goma, the provincial capital city of North Kivu. The ISTM Rutshuru offers three programs (nursing, midwifery and education and administration nursing (EASI) all for an advanced diploma (A1 level). The school is located near the Rutshuru referral hospital of Rutshuru territory and is supported by Médecins Sans Frontières (MSF). The total number of students admitted last year was 47 in general nursing (14 females) and 54 (17 males) in midwifery. The midwifery program had only students in year one. The nursing program recorded 48 graduates (30 males) during the year preceding the survey.

ISTM Tshikaji: This school is the most newly established among the surveyed schools. It is a private institution of higher education established in 2010. The school offers two diploma/A1 programs in pediatric nursing and midwifery. Last year, the school admitted 17 students (16 females) in midwifery and 36 students (19 males) in the pediatric nursing program. The institute has not yet produced graduates since it is only in its second functional year.

Annex 1, Table 1 provides an overview of the types of academic programs at each institute and the number of students admitted, total number of students enrolled, and number of graduates in the past year. It also includes each school's estimate of its maximum admissions capacity in each academic program.

3. SYNTHESIS OF THE FINDINGS

The following is a synthesis of the findings across all seven schools in the nine categories of the capacity assessment. An attempt has been made to compare and contrast the two levels of training – secondary (IEM/ITM) and higher education (ISTM) institutes – as well as identify trends across all seven institutes. Annex 3 provides tables summarizing the key findings across all schools in each of the nine categories.

3.1 Educators

The term educators refers to all staff involved in the delivery of education, such as lecturers, assistant lecturers, senior lecturers, associate professors, professors and full professors as well as preceptors and supervisors at clinical practice sites (e.g. CPPs). Annex 2, Table 2 provides an overview of the types and numbers of educators across the seven schools assessed. It is important to note that educators at the secondary level institutes (IEM and ITMs) are responsible for both classroom and clinical teaching.

The assessment focused on identifying capacity gaps in relation to the following aspects of educators: quantity and availability; attraction and retention; and quality, including opportunities for continuing professional development of educators.

3.1.1 Quantity and availability of educators

The assessment found 544 educators among the seven schools, 361 full-time and 183 part-time. Among all educators, 66% were full-time educators, and 83% were male. At the higher education ISTM level, the institutes reported a need to almost double the number of educators, with a large proportion of additional educators reportedly needed at ISTM Kinshasa.

At the three secondary education institutes (IEM and ITMs) all 54 teachers were at the level of clinical trainer (CPP), responsible for both classroom and clinical teaching. The ratio of male to female instructors at those schools was nearly equal (29 male and 25 female teachers in total), as well as the ratio of full-time to part-time teachers (29 full time and 25 part time). These schools did not express a great need for additional educators, with IEM Kamalondo indicating a need for three additional teachers, and ITM Kintambo indicating a need for two. The majority of students surveyed reported that classroom and clinical teachers were moderately to always available. Students noted a problem with the availability of educators only at IEM Kamalondo, where a need was identified for three additional teachers and where 45% of the students surveyed indicated that clinical instructors/supervisors were never available.

At the four higher education institutes (ISTMs) the majority of the reported 493 educators were at the level of senior lecturers (190) and assistants (149), accounting for 39% and 30% of the total teaching corps respectively. Only 32 (6.5%) of the educators at the ISTMs were reported to be clinical trainers (CPPs), and 116 (24.5%) at professor level, with 38 associate professors, 37 professors and 41 full professors. The overall ratio of male to female educators at the ISTMs was 6 males for every one female; that is 86% of the total teaching staff being male. At the professor level, this ratio increased to 18 males for every one female, where 95% of the educators at professor level were male. The ratio of full-time to part-time educators was 2:1, with 333 full-time and 160 part-time educators. More than 75% of the senior lecturers and assistants were full time educators, while only 27% of those at professor level were reported as full-time educators.

The ISTMs reported a need for an additional 393 educators (351 full time, and 42 part time), which represents an 80% increase (nearly doubling) in the current number of available educators. The largest need for additional educators was reported at ISTM Kinshasa, where a need for at least 200 additional full-time educators was expressed. The majority of students surveyed at the ISTMs reported that general and practical educators were moderately to always available, with the exception of ISTM Kinshasa, where less than 35% of students reported that general and clinical teachers were moderately to always available. The majority of students surveyed at the ISTMs, with the exception of ISTM Tshikaji, reported a poor availability of clinical trainers (CPPs).

3.1.2 Attraction to teaching

There were no noticeable differences between the secondary level schools (IEM and ITMs) and higher education institutes (ISTMs) with regard to motivation for teaching. Across the schools, the educators surveyed expressed a passion for teaching, with the most frequent reason reported for teaching being "I always wanted to teach".

In five of the seven schools assessed, the second most common response was "better opportunities for career/professional development". Although educators placed an importance on professional development, the institutes assessed appeared to provide very limited opportunities for educators to develop their teaching skills (see section 3.1.4).

In addition to the above reasons for teaching, 30% of the educators surveyed at ITM Kintambo reported that they had "no other choice but to teach". ITM Kintambo also had the highest turn-over rate of educators of all the schools assessed (see section 3.1.3).

At ISTM Kinshasa, the educators surveyed also frequently reported "flexible hours" as an important reason for teaching.

3.1.3 Retention of educators

There appears to be higher educator turnover at the secondary institutes (IEM, ITMs), with 17% of teachers resigning from ITM Kintambo in the past two years. Meanwhile, all four ISTMs reported that no educators had resigned from their positions within the past 2 to 5 years.

The median age of educators varied from institute to institute. IEM Kamalondo and ITM Kintambo reported having a young and dynamic teaching staff, while the majority of the educators surveyed at ITM Tshikaji were 45 years and older. At the ISTMs, the average age of educators ranged from 39 to 45. However, at ISTM Kinshasa, the age of educators was more advanced, with an average age of over 50 years. Teachers' age was thus reported as a concern at ISTM Kinshasa due to the imminent need to replace a large number of teachers as they retire.

In terms of incentives, all ISTMs reported that educators earn salaries from the government plus a bonus from the school. At ISTM Rutshuru, educators are also offered transportation allowances. No incentives were reported for the secondary level institutions, where it appears that educators are paid salaries by the government, but no bonuses.

3.1.4 Quality of educators

In five of the seven schools assessed, more than half of the educators surveyed reported that they also work at clinical facilities, which can serve to keep their clinical skills up to date. The institutes where clinical work is not common among teachers were IEM Kamalondo and ISTM Kinshasa. ISTM Kinshasa reported that only 25% of educators also work in clinical facilities.

At six of the seven institutes assessed, the majority of educators surveyed reported having more than five years of teaching experience. The exception was ISTM Rutshuru, where 78% of the educators surveyed reported having less than five years of teaching experience.

In six of the seven institutes assessed, between 45% and 89% of the educators surveyed reported feeling under-qualified for their current position. In sharp contrast, 83% of the educators surveyed at IEM Kamalondo reported that they felt qualified for their current position. At the same time all seven institutes reported insufficiencies in the training, in continuous professional development, or in quality or quantity of educators. While several schools reported having a training program in pedagogical skills for new teachers, at least half of the teachers surveyed indicated that they had never participated in such a training program.

In three of the four ISTMs, the majority of students surveyed were dissatisfied with the teaching abilities of their educators. The exception was the midwifery students at ISTM Kinshasa, who reported being satisfied with the teaching skills of their educators in general courses and clinical training. In contrast, at the IEM and ITMs, both management and students generally reported being satisfied with the quality of teaching, and indicated different types of pedagogy training and seminars provided for educators. However, ITM Kintambo reported a lack of educators with specialized training, with only half the teachers having ever received training in pedagogy.

Across all institutions assessed, only 63 educators (12% of all educators) had reached the postgraduate level of training (professor and full professor). Two schools reported that they were not able to train teachers at ISTM doctorate level, and that teachers must leave the country to access this level of training.

3.1.5 Continuous training and development of educators

Staff development and career development, particularly in relation to training in teaching skills, was weak across all institutes. Two of the secondary level schools, ITM Kamalondo and ITM Tshikaji, reported that they conduct teaching seminars for new educators or the majority of their educators are trained in nursing education and administration. However, at the ISTM institutes, from 26% to 36% of educators surveyed reported that they had no training in pedagogy or teaching skills. Only one school, ISTM Kinshasa, reported having a staff training policy. However, educators indicated that the policy was not being fully implemented.

3.1.6 Conclusions related to capacity gaps at school and systems levels for educators

A coordinated response at the level of both the institutions and the education system will be needed to overcome the capacity gaps found in the category of educators. The response will need to address:

- Shortages of educators, with the most acute shortages at ISTM level, and with ISTM Kinshasa expressing the greatest need for additional educators and the highest average age of its teaching staff
- Imbalance in the gender mix of educators at ISTM level, with more than 80% of the educators being male, and more than 90% male at the post-graduate level
- Shortages of clinical teachers (CPPs), especially at ISTM level, with an absence of incentives such as government supported service agreements to attract and retain more clinical trainers
- Shortages of educators at professor level and educators with specializations, amplified by the majority of educators at the post-graduate level working part time and the limited capacity in the country to produce educators at post-graduate level
- Relatively high turn-over of staff at ITM Kintambo, with more than 30% of teachers surveyed reporting that they had “no other choice but to teach”
- The absence of long-term plans to increase the pool of educators, especially clinical trainers, and the need to replace those who will soon retire
- Limited opportunities for professional development, highlighted by the findings of:
    - Absence or irregular implementation of faculty development policies and programs;
    - Relatively few educators receiving recent training or refresher courses in effective teaching skills/pedagogy, particularly at the ISTM level;
    - A large proportion of educators reporting that they felt under-qualified for their current position; and
    - The majority of students surveyed at the ISTM level reporting dissatisfaction with the teaching abilities of their educators

- Apart from salaries, limited incentives for excellence in teaching, such as salary bonuses which are linked to teaching performance, professional development opportunities, housing and transportation allowances, especially at the IEM and ITM level

3.2 Students

The assessment focused on identifying capacity gaps in relation to the quantity, attraction, selection, admission, and retention of students as well as the graduation and placement of students in jobs after graduation.

3.2.1 Quantity of students

The seven institutes reported a total of 9,710 students currently enrolled at all years and levels of study across 10 different academic programs for nurses and midwives, starting from secondary-level programs (A2) up to Bachelor's Degree level (A0) (See Annex 1, Table 1). The total number of students enrolled at the three secondary-level schools (IEM and ITMs) was 401, with 9,309 enrolled at the ISTM level. The institutes with the largest numbers of students were ISTM Kinshasa and ISTM Lubumbashi with 6,618 and 2,333 students reported respectively. The smallest numbers of students were reported at ISTM Tshikaji and ITM Tshikaji, with 53 and 24 students respectively.

The secondary level schools reported an average class size of less than 25 students per class at ITM Kintambo to more than 100 at ITM Tshikaji. The estimated student-to-teacher ratio was fewer than 30 students per teacher (30:1) at all three secondary schools.

Students surveyed at the ISTMs reported that the average number of students per class is 50 to 75 at ISTM Rutshuru to more than 75 students per class in the remaining three ISTMs. ISTMs Kinshasa and Lubumbashi, the institutes with the highest numbers of enrolled students, also had the highest student-to-teacher ratios, with 106 nursing students and 12 midwifery students per full-time teacher at ISTM Kinshasa; and 50 nursing and 8 midwifery students per full-time teacher at ISTM Lubumbashi. The student-to-teacher ratio was much lower in the other two ISTMs, where an average ratio of 8 to 14 students per full-time teacher was reported.

3.2.2 Attraction of students to nursing and midwifery

At both secondary and ISTM levels, family influences was the most frequently cited reason by the students surveyed for studying nursing or midwifery. This was followed by a motivation to help other people, reported by those at secondary level schools. At the ISTM level, the possibility of better employment opportunities and salary were mentioned almost as frequently as the desire to help others. A few students at ISTM level mentioned that they were forced by the government to study nursing or midwifery.

3.2.3 Selection and admission of students

All schools assessed, at both secondary and tertiary level, applied a set of criteria for the selection of students. These criteria focused primarily on the demonstrated academic performance of the candidate, the completion of pre-requisites -- such as 3 years secondary education for the ITMs, and 6 years secondary education or IEM/ITM education for the ISTMs -- and their admissions exam score. Criteria related to the motivation, origins, ethnicity, gender, language skills, or other demographics of the candidates were not reported as being used in the selection process. Selection for the secondary level institutes (IEM and ITMs) is organized centrally by the Ministry of Public Health. Some difficulties were reported with this process, such as exclusion of the institute from the selection process and refusal of some secondary schools to send student files to a central process. The ISTMs, however, selected students at the institute level, with some criteria being provided by the Ministry of Higher and University Education. In two ISTMs, Lubumbashi and Rutshuru, it was reported that a proportion of students who score poorly on the entrance exam are admitted in order to achieve the yearly quota for admissions. Apart from the ministries, no other stakeholders – such as community or health facility representatives – were reported as being involved in the selection process. The majority of school managers noted the poor quality of secondary schools, and especially the poor development of math and French abilities.

At the secondary school level (IEM and ITMs); IEM Kamalondo and ITM Kintambo exceeded their maximum capacity for new admissions in the year preceding the assessment. More than 60% of the students admitted were female, with the highest proportion of females admitted at ITM Kintambo, where 93% of new students were female. Fewer than 25% of the students admitted to IEM Kamalondo and ITM Tshikaji were from rural areas; this proportion at ITM Kintambo was not reported.

At the tertiary level ISTMs, two institutes (ISTM Kinshasa and Lubumbashi) exceeded their admissions capacity in the year preceding the assessment; while ISTM Rutshuru admitted only about 50% of its capacity and ISTM Tshikaji did not report its maximum capacity. ISTMs Kinshasa and Lubumbashi also reported the largest numbers of students, the highest ratio of students to teachers, and the largest need for additional educators. More than 70% of the students admitted to midwifery programs were female; while in specializations such as anesthesia, neuropsychiatry and education and nursing administration the gender balance was closer to 50%. At ISTM Rutshuru the majority of new students (nursing and administration and education) were male. Fewer than 25% of students surveyed at ISTM Kinshasa, Lubumbashi and Tshikaji were from rural areas. Although ISTM Rutshuru is located in a rural area, fewer than 42% of the students surveyed said that they come from a rural area.

3.2.4 Retention of students in nursing and midwifery programs

The proportion of drop-outs at the secondary level institutes ranged from 10% to 30%, with the highest drop-out rate in the midwifery program at IEM Kamalondo (30%). The primary reasons given for

dropping out were lack of financial means followed by other reasons such as marriage, pregnancy, and indiscipline. All secondary schools reported the availability of some financial assistance, which included providing small jobs such as gardening, cleaning or working in the hospital. Mentoring, counseling and peer support groups were reported as available at all three secondary level schools. ITM Tshikaji also reported holding meetings with the parents of students every trimester.

Retention was relatively better at the ISTMs, with drop-out rates ranging from 3% at ISTM Kinshasa to 6% at ISTM Lubumbashi and ISTM Tshikaji. However, this still represents a sizable number of students, given that these institutes admitted almost 5,000 students in the year preceding the study. The primary reasons given for leaving studies were similar to those of the secondary schools – with lack of finances or financial assistance at the top of the list. Illness, pregnancy, and death or transfer of parents were also reported as reasons for dropping out. None of the ISTMs reported having a system to determine the ability of students to pay. ISTM Kinshasa reported providing scholarships to 20 needy students per year, and the option for students to pay in installments. ISTM Lubumbashi also reported the ability to pay in installments; and ISTM Rutshuru reported the acceptance of in-kind payments, such as sacs of beans and sorghum. No support systems were reported to retain students, except for counseling, peer support groups and job placement support at ISTM Kinshasa and peer support groups at ISTM Lubumbashi.

3.2.5 Graduation and deployment of students

Graduation rates ranged from 20% to 48% of new admissions in the secondary level schools, with ITM Tshikaji reporting the highest graduation rate. However, the management of ITM Tshijaki also noted that the majority of students need to repeat courses. All three secondary level institutions reported having a system in place to support students in finding a job, although the students and educators surveyed at ITM Kintambo were not aware of this policy.

Graduation rates at the ISTMs ranged from 26% to 58% of new admissions, with ISTM Rutshuru reporting the highest rate. ISTM Tshikaji, which opened as a new institute in 2010, had no graduates to report. None of the ISTMs reported having a system to support graduates in registration, deployment or placement in jobs. Some managers at ISTM Lubumbashi mentioned a policy for internships, and ISTM Rutshuru reported an orientation to the nursing association during the internship period.

None of the respondents at the seven schools assessed were aware of any possibility for students to become registered with a professional body after graduation; and none of the institutes reported having a system to track and connect with alumni.

3.2.6 Conclusions related to capacity gaps at school and systems levels for students

A coordinated response at the level of both the institutions and the education system will be needed to overcome the capacity gaps found in the category of students. The response will need to address:

- The large class sizes at ISTM level, with an average of more than 75 students per class, especially in the nursing programs of ISTM Kinshasa and Lubumbashi where the student to teacher ratio was estimated at 50 to 100 students per teacher
- Student's perceptions of the nursing and midwifery professions, and the belief by some students surveyed that they were "forced" into study nursing or midwifery
- The process and criteria applied for student selection, particularly the central selection process for the IEM and ITMs and the absence of criteria at all institutes related to the motivation, geographic origin, ethnicity, gender, language skills, and other demographic characteristics of the candidates, which is highlighted by the high proportion of females who are admitted (especially in the midwifery programs) and the very low proportion of students from rural areas who are admitted
- Institutes that exceed their maximum capacity for admissions (IEM Kamalondo, ITM Kintambo, ISTM Kinshasa, ISTM Lubumbashi)
- The relatively high drop-out rate at IEM Kamalondo
- The heavy burden of student fees, which was reported by all schools as the most frequent cause of drop-outs, combined with the paucity of financial assistance programs
- Relatively low graduation rates (58% or less of admissions), and the absence of systems to support graduates in registration, deployment or placement in jobs, and of systems to track and connect with alumni

3.3 Financial management of the institutes

From 56% to 86% of the institutes' overall income is generated through student fees, with the exception of ITM Tshikaji, which is a private non-profit institute that receives from 5-10% of its revenue from mission support. Government subsidies are common, but are primarily used for educator salaries and bonuses, leaving very few financial resources for the maintenance and development of infrastructure and materials. In fact, in most institutes reporting expenditures, the majority of expenditures were used to pay salaries and bonuses for teachers (>60%); less than 20% of expenditures were used for infrastructure and equipment.

A coordinated response at the level of both the institutions and the education system will be needed to address:

- The resources needed to finance additional educators
- The high proportion of income generated from student fees and the scarcity of financial assistance, even though all the institutions assessed, except ITM and ISTM Tshikaji, are public institutions

- The low proportion of resources dedicated the development and maintenance of infrastructure, materials and equipment for learning.

3.4 Infrastructure

This section summarizes the findings on infrastructures across the seven surveyed schools. The assessment focused on: classrooms; skills labs; libraries; computer labs with internet; electricity, drinking water and sanitation; lodging/accommodation and cafeteria; and security system.

3.4.1 Classrooms/lecture halls

The findings indicate that there is a shortage in the number of classrooms in five of the seven surveyed schools. Two ITM (Kintambo and Tshikaji) respondents indicated having a sufficient number of classrooms. In response to the shortage, some school respondents announced undergoing construction activities (ISTM Lubumbashi, Kinshasa and Rutshuru) while others reported renting or sharing classes with other schools (ISTMs Rutshuru and Lubumbashi).

3.4.2 Skills labs/demonstration rooms

While it appears that secondary school education programs (ITM) had skills labs in place -- though not in good condition -- the two newly established higher education institutions (ISTM Tshikaji and Rutshuru) did not have skills labs at all. Furthermore, the older training institutions faced problems renovating their buildings in general, but particularly for renovating their skills labs. These facilities in many cases were being used as classrooms, making it difficult for students to access them regularly, if at all. The skills labs as presented were actually considered as demonstration rooms, whereby students attend their teachers' demonstration sessions on nursing or midwifery procedures. Students were rarely given an opportunity to review and master procedures on their own.

ISTM Rutshuru does not have a skills lab but indicated needing three. Although ISTM Tshikaji has no skills lab, their need in this regard was not determined. Except for IEM Kamalondo, where respondents expressed satisfaction with the one skills lab it has, and for ISTM Kinshasa, which is in need of two more skills labs for midwifery, all the other schools have one skills lab, and an expressed need of one additional skills lab each.

Among other challenges faced by skills lab users are problems of location, light, equipment, hygiene, water, and electricity supply.

3.4.3 Library

The reported data indicate that only ITM Tshikaji has a good library at with a full-time specialized librarian and a large number of students confirming adequate access to library services. The other surveyed schools, however, indicated various challenges in this regard, notably the absence of any library in two schools (IEM Kamalondo and ISTM Tshikaji). One of the ISTMs (Rutshuru) has only a small reading room located in a privately hired, off-campus house. Of the libraries that exist at the schools, all but ITM Tshikaji had no librarian, not enough or too few updated books, limited space, and limited hours of operation. Except for ITM Tshikaji, none of the libraries had an internet connection. In addition to these problems, the respondents noted that the libraries had shortages in water and electricity supply.

3.4.4 Computer lab with Internet

Of the seven surveyed schools, two ISTMs (Lubumbashi and Tshikaji) did not have a computer room and the rest of schools had no internet connections except for one school (ITM Tshikaji) that reported very low internet connectivity. Respondents at all schools reported a limited capacity of computer labs in terms of quantity and quality of computers as compared to the demand and/or potential number of users.

Respondents at the three schools with one computer lab (IEM Kamalondo, ITM Tshikaji and ISTM Kinshasa) expressed the need for one more each. Respondents at other schools without a computer lab expressed the need of having one. ISTM Tshikaji respondents did not answer the question about this need.

The following are existing numbers of computers and expressed needs per school:

- IEM Kamalondo: five computers, with 10 more needed
- ITM Kintambo: 17 computers, with 30 more needed
- ITM and ISTM Tshikaji: computer needs not reported
- ISTM Kinshasa: 40 computers (20 for nursing & 20 for midwifery), with 150 more needed
- ISTM Lubumbashi : 60 computers, with 40 more needed
- ISTM Rutshuru: 12 computers, with 13 more needed

3.4.5 Electricity, drinking water and sanitation

Every surveyed school reported shortage of electricity and drinking water supply due to untimely cuts. Also, poor sanitation was widely reported by schools. For instance, at ISTM Lubumbashi, more than 90% of the surveyed nursing and midwifery students as well as 79% of teachers stated that sanitation facilities (restrooms/toilets) were either absent or in poor condition. The schools do not in general provide access to tap water from different facilities such as library, skills lab, classrooms and toilets.

3.4.6 Lodging/dormitories and cafeteria

Only two (IEM Kamalondo and ITM Tshikaji) of the surveyed seven schools were reported to have dormitories. It was indicated at IEM Kamalondo that the dorms were insufficient to meet students' accommodation needs for. The other school (ITM Tshikaji) was reported to have sufficient rooms to accommodate male and female students separately. None of the schools were reported to have accommodation for teachers.

Only one (ISTM Lubumbashi) of the total surveyed schools was indicated to have an adequate cafeteria. Other schools did not have cafeteria services at all for both students and teachers.

3.4.7 Security

Of the seven surveyed schools, only two (ITMs Kintambo and Tshikaji) were indicated to have a good security system. Most of the respondents indicated poor or very poor security system due to war, especially in the eastern part of DRC, or due to the absence of security measures put in place by their respective school administrations.

3.5 Materials and equipment for educators and students

This section reviews data collected from the surveyed seven schools in total on materials and equipment that are found in skills labs, clinical practice sites, textbooks and learning materials, computers, and internet access.

3.5.1 Skills lab

The majority of those at surveyed schools reported inadequate number or total absence of anatomical models, computers, and internet facilities in their skills labs. However, two of the surveyed schools (ITM Kintambo and ITM Tshikaji) reported the availability of a good range of materials and equipment including anatomical models and consumables in moderate conditions.

3.5.2 Clinical practice

Of the seven surveyed schools, five (IEM Kamalondo and ISTMs Kinshasa, Lubumbashi, Rutshuru and Tshikaji) were reported to have a critical shortage of materials and equipment in clinical training sites. The shortage includes gloves, detergents, antiseptics, thermometers, stethoscopes and sphygmomanometers. In addition, it was a reported that there were high numbers of students in health facilities required to share a limited quantity of equipment and consumables.

3.5.3 Textbooks and learning materials

Only ITM Kintambo was reported to have an adequate quantity of textbooks. The other six surveyed schools were reported to offer very limited access to textbooks, periodicals and journals. Access to electronic journals and books was reported to be almost impossible for students and teachers, due to a lack of computers with internet connections on campus. A large proportion of surveyed teachers and students, however, reported owning computers and accessing internet connections independently off-campus.

3.5.4 Computers and Internet

Although respondents from all schools indicated a lack of computers from their campuses, a majority of surveyed students declared to own computers as well as a good number of teachers. The vast majority of students owning computers affirmed that they used them on daily basis. This was, however, not so amongst teachers who reported using their own computers less than once in a week. All surveyed schools reported internet to be a rare resource that could not allow them having access to e-library, e-journals and research. In most cases, students and teachers could not access internet on campus. They could, however, access it from their homes, at a cybercafé, or elsewhere.

3.5.6 Conclusions related to capacity gaps at school and system levels

A coordinated response at the level of the institutions and the education system will be needed to address capacity gaps in the area of infrastructure and materials. The response should address the following challenges:

- The shortage of infrastructures that is critical to the teaching and learning process. Among these infrastructures are classrooms, skills labs, equipped libraries with updated learning materials, computer labs with computers and internet, electricity, drinking water and sanitation, lodging, cafeterias and adequate security
- Lack of budget for maintenance and renovation of the existing infrastructures
- Limited number of opening hours of libraries, skills labs and other infrastructures to students and teachers
- Insufficient support of stakeholders including government and development partners regarding funding for construction
- Insufficient budget for renovation of existing infrastructure
- Lack of anatomic models in skills labs

- Insufficient budget for purchasing basic materials and consumables that are necessary for clinical practice without necessarily relaying on what is found in clinical training sites
- Inadequate system supply of books and other learning materials
- Lack of policy and budget for using the internet and computers in schools to encourage students and teachers to access information

3.6 Curriculum

Data were collected on the duration of the school's curricula for their various programs. Table A outlines the types of programs offered at each school. ISTM Kinshasa offers the greatest number of A1 programs with a total of six; IEM Kamalondo offers the most A2 programs with a total of five, and ISTM Lubumbashi offers the most L2 level programs with a total of three. It should be noted that among the seven schools, there are a total of 18 programs of study, each with a distinct curriculum.

Table A. Academic programs by level, program of study, duration, and school

Level	Program	Duration of training (years)	IEM KAMALONDA	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI
A1	Anesthesia/ resuscitation	3				X			
	General nursing	3					X	X	
	Hospital nursing	3				X			
	Laboratory	3						X	
	Midwifery	3				X	X	X	X
	Neuropsychiatry	3				X			
	Nursing Education and Administration (EASI)	3				X		X	
	Nutrition (Vocational graduate level GTBM program)	3					X		
	Pediatrics	3				X			X
A2	Laboratory	4	X						
	Midwifery	4	X						
	Nursing	4	X	X	X				
	Pharmaceutical assistant	4	X						
	Sanitation technician	4	X						
A0/L2	Anesthesia and resuscitation	5				X			
	Laboratory	5					X		
	Management	5					X		
	Nursing Education and Administration (EASI)	5				X	X		

3.6.1 Duration

Broadly, the majority of surveyed teachers and school management respondents felt that the duration of training curricula at their respective schools was satisfactory. However, many respondents emphasized interest in having more time for practical training.

At the three secondary level institutes (IEM and ITM), a majority of students (A2 nursing program) also described the curricula to be of adequate duration. However, at IEM Kamalondo, 56% of midwifery students were dissatisfied with the curricula, estimating that it is too long.

At the four higher education institutes (ISTMs), fewer students were satisfied with the curricula's length. At the ISTM Kinshasa, only 15% of students were satisfied; 40% were indifferent and 38% believed it to be too long. However, nursing and midwifery students cited frequent teacher strikes; poor organization and availability of teachers; and curricula cluttered with courses unrelated to their work as reasons that the program was too short. At the ISTM Lubumbashi, only 45% of students were satisfied with the length of training. According to many, the unavailability of classrooms and auditoriums affects the duration of training.

At ISTM Rutshuru, less than one-third of all teachers and students surveyed agreed that the curricula duration was adequate; management concurred, citing that in particular that time dedicated to the practicum was insufficient.

3.6.2 Student competence

This section discusses the quality and relevance of training to prepare graduates to practice in health facilities at various levels in the DRC, which was generally deemed satisfactory by all surveyed. At the three secondary level institutes (IEM and ITM), the school management expressed confidence in students' preparation for work in the public health system. While a majority of students surveyed also felt well-prepared by their studies for practicing, at the ITM Tshikaji, 95% of students surveyed were not willing to work in a rural area at the end of their studies. At the four higher education institutes (ISTMs), the vast majority of school management, teachers and students felt that the curriculum prepared graduates well to practice. At the two most urban schools, ISTM Kinshasa and ISTM Lubumbashi, over 80% of all nursing and midwifery students surveyed stated their commitment to practice in rural zones after graduating.

3.6.3 Evaluation of curricula

This section reviews the schools' curricula evaluation mechanisms, including: the presence of a functional curriculum review committee; the frequency of curriculum reforms within the last 5 years; the types of stakeholders involved in the review process; and the frequency and focus of curriculum evaluation. All

school respondents confirm that their schools' curricula conform to national standards as per the national reform committee. However, only the higher-level institutions' curricula are evaluated every five years through the Ministry of Higher Education, with the exception of ISTM Tshikaji, whose curricula will be evaluated after its first class graduates in 2013. At the ISTM Lubumbashi, curricula are also reviewed internally to accommodate teachers' inputs and integrate the latest scientific developments. A large majority of the teachers surveyed at the ISTM Kinshasa suggested that the program content required updating, and that some subjects taught in the nursing and midwifery curricula were not relevant to the program.

3.6.4 Pedagogy and IT

There are many opportunities to improve the quality and relevance of the schools' curricula through improved pedagogy and the use of information technologies (IT). At the time of data collection, only those interviewed at ITM Kintambo and ISTM Kinshasa reported use of new technologies and different teaching approaches within their curricula. The curricula at most schools are taught predominantly through a lecture method, which limits the interactions that students have with one another and the subjects that they are learning. Section 1 discusses the limitations of teacher training and the importance of faculty development to improve the quality of training.

All schools reported limited or absent use of information communication technologies (ICT) in their program curricula. This is due to the limited availability of computers and equipment to students and teachers, as well as limited internet connectivity at most schools. The availability of IT materials and equipment are further detailed in sections 4 and 5.

3.6.5 Conclusions related to capacity gaps at school and systems levels

Overall, respondents felt that school curricula were adequate to prepare students to practice at health facilities upon graduation. In addition, challenges with the current curricula could be reviewed to better integrate the use of existing IT and more diverse teaching approaches.

School level capacity gaps/needs:

- There is a need to optimize the use of existing IT and integrate new pedagogical methods by programs of study
- A review of the rural practical experience at ITM Tshikaji is recommended so as to understand why so few students seek to work in rural areas after their studies

Systems level capacity gaps/needs:

- The roles and processes of the national reform committee review may need further clarifying
- The national standards are not updated to include newer pedagogical methods and use of IT
- The length and quality of practical experience vis-à-vis theoretical courses is a concern

- The lack of involvement of additional stakeholders (faculty, students, communities) in curricula review

3.7 Clinical practice

3.7.1 Types and quantity of health care facilities used for clinical practice

Overall, the seven schools surveyed demonstrate a good variety of clinical practice sites that are deemed to be within acceptable distance from the schools themselves according to students and teachers surveyed.

Of the secondary institutions, ITM Kintambo has the most sites, with 23 sites of different levels that are all within 25 kilometers, which management felt was insufficient. IEM Kamalondo has 11 health facilities, including three regional referral hospitals, all of which are a maximum distance of four kilometers.

The ITM and ISTM in Tshikaji have the most limited access to diverse clinical practice sites. However, they benefit from one regional referral hospital, the "Bon Berger", which was constructed specifically as a teaching hospital and is located less than one kilometer from campus. The majority of students, teachers and management surveyed on their level of satisfaction about the sites agreed that it was adequate. However, most ISTM Tshikaji faculty reported the number of practical sites to be insufficient.

The higher education institutions in Kinshasa, Lubumbashi and Rutshuru have access to 30, 11 and 35 different practice sites, respectively. Distance to sites for ISTM Lubumbashi and ISTM Rutshuru is an average of 15 kilometers, which was perceived as difficult for those at ISTM Lubumbashi.

3.7.2 Capacity of clinical training sites to accept students

The satisfaction with student accommodation reported by respondents was mixed, with the absence or poor condition of student accommodation, training tools and medical equipment cited in some cases. Despite the large number of clinical training sites near to ISTM Kinshasa, the majority of those surveyed reported that only a few were suitable for accommodating students. 92% of faculty at ISTM Tshikaji felt dissatisfied about student accommodation at their one clinical practice site (see also section 3.7.6 Supervision).

3.7.3 Transportation to access the clinical practice sites

Transportation from ITM Kintambo to its 23 sites was viewed poorly by their management, although teachers and students surveyed reported the cost to access sites as good.

At ISTM Kinshasa and ISTM Lubumbashi, the most urban schools, the distance and means for accessing sites was reasonable according to the majority of students and teachers. However, at both the school management felt that access, costs and transport to sites were poor.

3.7.4 Security system at clinical practice sites

Overall, security at clinical sites was adequate. A significant majority of management, faculty and students at IEM Kamalondo, and ISTM Lubumbashi indicated that the security system at clinical practice sites was "good". At ITM Kintambo, while two-thirds of students indicated that security at sites was good, 62% of teachers reported that it was poor. For the ITM and ISTM in Tshikaji which make use of the same hospital, security was unanimously reported to be good. At ISTM Kinshasa, being located in the most urban zone, 69% of the school's faculty reported that security was "absent" or "bad", although two-thirds of students reported security to be satisfactory.

The security situation at ISTM Rutshuru is precarious, with frequent attacks reported on the roads between Rutshuru and Goma during the time of the study. This impedes the ability of the program to progress normally, affecting teachers, students, and administration.

3.7.5 Supervision, coaching, student accommodation, and clinical training tools

The absence or quality of supervision was identified as an issue with clinical practical sites for all schools. However, most teachers and students reported that the clinical placement logbook and clinical practice evaluation forms were well used at all schools. At almost all schools, some concern about the relationship between theoretical coursework and the practical site training was expressed by those surveyed. Section 3.5.2 includes a discussion of the availability of specific materials and equipment at clinical practice sites.

Supervision as clinical practice sites was believed to be poor by the majority of those surveyed at both secondary and higher education institutions. At IEM Kamalondo, 80% of teachers and 80% of students reported that supervision is "absent" or "poor", despite having a good number and variety of teachers. Accessing the clinical sites, supervision, and student conditions at ITM Kintambo's training sites were seen as poor, and the number of sites that were accessed had too many students. Having teachers present both in the field and at school was perceived as one of the institution's strengths, however. The supervision at secondary institution ITM Tshikaji was considered adequate by students, with 73% of surveyed expressing satisfaction; retention of clinical practice instructors was cited as a problem.

In contrast, while most of the teachers at ISTM Tshikaji reported good supervision at the same clinical site shared by ITM Tshikaji (Bon Berger Hospital); almost 80% of midwifery students surveyed reported that supervision was "absent". Students expressed concern about the connections between their theoretical and practical training. Likewise, 63% of nursing students and 43% of midwifery students at ISTM Lubumbashi were not satisfied with the capacity of health facilities to accommodate them. In contrast, 87% of the faculty surveyed at ISTM Lubumbashi felt that supervision was good, and 73% felt that there were not enough students in relation to the capacity of the training sites. In a conflict-afflicted area, the ISTM Rutshuru respondents reported struggling with supervision at training sites. More than

70% of students declared supervision to be absent at training sites; the student-to-supervisor/clinical trainer ratio is unknown.

In terms of the availability of clinical tools, most IEM Kamalondo, ITM Tshikaji, ISTM Lubumbashi teachers and students surveyed felt that the equipment and medical supplies were missing or in poor condition. Section 3.5.2 includes a discussion of the availability of specific materials and equipment at clinical practice sites. With the exception of ISTM Kinshasa and ISTM Lubumbashi where their use was cited as "poor", the clinical practice logbooks and the evaluation tools used for students' practical training were cited as being overwhelmingly effective and well utilized.

3.7.6 Perceptions of the duration of clinical practice

The majority of management, faculty, and students at the surveyed schools reported that the duration of the practical training was generally adequate. In most cases, management cited that the duration of study complies with program standards. However, others cited that the training was too short due to its perceived quality, notably teachers and students at ITM Tshikaji. 60% of teachers at ISTM Lubumbashi felt that the time spent at clinical training sites was "too much".

3.7.7 Conclusions related to capacity gaps at school and systems levels

While the number, distance and variety of clinical practical sites for the seven schools surveyed are satisfactory, there are concerns about the quality and availability of student supervision and students' ability to effectively access sites.

School level capacity gaps/needs:

- The lack of present and high quality supervision at the majority of clinical practice sites
- The student-to-supervisor ratio unknown and most clinical sites
- The poor quality of medical equipment at clinical sites

Systems level capacity gaps/needs:

- Limited access to clinical practical sites
- The lack of standards for supervision at clinical practical sites

3.8 Quality assurance

3.8.1 Accreditation of institutions

With the exception of ITM Kintambo, all surveyed schools are recognized by their governing ministry. However, there is no formal accreditation process by an independent authority. One respondent at ITM Kintambo reported that the school undergoes internal and external inspections, although he noted that they do not receive any feedback after the assessment. The respective clinical practical sites at the schools assessed are not subject to an accreditation process by a relevant entity, such as the nursing or midwifery council. The Bon Berger referral hospital, the practical training site for ITM and ISTM Tshikaji, is accredited by the Ministry of Public Health (6th Directorate) through its provincial coordination.

3.8.2 Licensure, certification and registration of graduates

At IEM Kamalondo, ITM Kintambo, ITM Tshikaji, ISTM Kinshasa, ISTM Lubumbashi, ISTM Rutshuru, the graduates of the nursing and midwifery programs are not subject to registration or authorization to practice by a relevant regulatory council. However, the institutes reported that they apply rigorous criteria for admission as well as internal and external evaluation of the performance of their students.

Graduates are affiliated with their respective professional associations. However, there is no compulsory registration process. At ISTM Lubumbashi, feedback on the graduates from employers and institutions is analyzed to assess the graduates' quality, although this is not an official process.

3.8.3 Conclusions related to capacity gaps at school and systems levels

The absence of a formal accreditation system of training institutes and of a professional licensing or certification of process of graduates present challenges to assuring high quality and relevant nursing and midwifery graduates in the DRC.

School level capacity gaps/needs:

- Feedback is not generally provided to schools after inspection or supervision visits

Systems level capacity gaps/needs:

- Lack of internal or external accreditation of schools
- Lack of regulatory bodies and a process of professional licensing of graduates for practice
- Lack of compulsory registration with a professional association

3.9 Partnership and exchange

The summary of findings on partnership and exchange programs at surveyed seven schools consists of faculty and students' exchange; existence of partnerships with other universities, departments, schools or clinical services; the sharing of infrastructures, facilities and materials; and partnerships with professional councils and the labor market.

3.9.1 Faculty and student exchange

Two schools (IEM Kamalondo and ISTM Rutshuru) were indicated to have exchange on part-time teaching or visiting programs, while other ISTMs collaborate with advanced universities to the training their faculty for higher qualifications.

None of the seven surveyed schools reported having an exchange program for students.

3.9.2 Partnerships with other universities, departments, schools or clinical services (outside and within the institution)

Four of the surveyed schools (IEM Kamalondo, ITM Tshikaji, ISTM Kinshasa, ISTM Lubumbashi and ISTM Rutshuru) confirmed the existence of exchange programs with sister schools or clinical sites regarding staff development and academic issues. However, details on available programs could not be given in most cases. Only one ISTM (Lubumbashi) reported engaging in collaborative research activities.

Respondents at ITMs and IEMs mainly indicated establishment of partnerships with clinical training sites with regards to the training of students under clinical placements.

3.9.3 Sharing of infrastructures, facilities and materials

A system for infrastructure sharing does not seem to have been envisaged yet, since only one school (ISTM Lubumbashi) reported to be sharing classrooms and dormitories with the University of Lubumbashi. None of the other six schools reported having such a policy or agreement.

3.9.4 Partnerships with professional councils and the labor market

The DRC is among the African francophone countries that have not yet established a Nursing and Midwifery Council. This has therefore resulted in null response to the question about registration of students by a professional regulatory body. The graduates are only recognized by their qualification papers and tracked through their academic registration and records from their attended schools. The country has, however, an Association of Nurses that deals with voluntary registration of its members. On

the other hand, most of the surveyed schools indicated no link between their graduates and work places. There was no alumnae system as an opportunity to keep in touch with graduates.

3.9.5 Conclusions related to capacity gaps at school and system levels

There is need to address the following gaps:

School level capacity gaps/needs:

- Inadequate or total absence of exchange programs for faculty and students between schools both within and outside the country for education and research
- Absence of strategy on sharing of equipment with sister institutions

System level capacity gaps/needs:

- Absence of link between schools and employers in terms of job placements and alumni associations

Annex 1: Academic Programs and Numbers of Students

Table 1a: Number of students by gender admitted last year in the nursing and midwifery programs in the seven schools assessed

Type of program	Duration of training in years	Pre-requisites for admission	Number of students admitted last year (Male and Female)															
			IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	**TOTAL**	IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	**TOTAL**
			M	M	M	M	M	M	M	**M**	F	F	F	F	F	F	F	**F**
ISTM General Nursing (A1)	3	D6/A2	-	-	-	504	562	33	-	**1099**	-	-	-	2031	1147	14	-	**3192**
IEM & ITM Nursing Science (A2)	4	3PP	47	6	10		28		-	**91**	110	86	15	-	-	-	-	**211**
ISTM Midwifery (A1)	3	D6/A2	-	-	-	9		17	3	**29**	-	-	-	83	224	37	12	**356**
IEM & ITM Midwifery (A2)	4	4PP	6	-	-				-	**6**	73	-	-	-	-	-	-	**73**
ISTM Nurse Education & Admin. (EASI) (A1)	3	D6/A2	-	-	-	4		9	-	**13**	-	-	-	3	-	-	-	**3**
ISTM Nurse Education & Admin. (EASI) (A0)	5	A1	-	-	-	4	100	-	-	**104**	-	-	-	2	72	-	-	**74**
ISTM Nurse Neuropsychiatry (A1)	3	D6/A2	-	-	-	2	-	-	-	**2**	-	-	-	2	-	-	-	**2**
ISTM Nurse Pediatrics (A1)	3	D6/A2	-	-	-	10	-	-	-	**10**	-	-	-	28	-	-	-	**28**
ISTM Nurse Anesthesiologist (A1)	3	D6/A2	-	-	-	18	-	-	-	**18**	-	-	-	17	-	-	-	**17**
ISTM Nurse Anesthesiologist (A0)	5	A1	-	-	-	4	-	-	-	**4**	-	-	-	2	-	-	-	**2**
TOTAL			53	6	10	555	690	59	3	**1376**	183	86	15	2168	1443	51	12	**3958**

Type of program	Duration of training in years	Pre-requisites for admission	Total number of students admitted last year							
			IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	TOTAL ADMITTED LAST YEAR (Male and Female)
ISTM General Nursing (A1)	3	D6/A2	0	0	0	2535	1709	47	0	4291
IEM & ITM Nursing Science (A2)	4	3PP	157	92	25	0	28	0	0	302
ISTM Midwifery (A1)	3	D6/A2	0	0	0	92	224	54	15	385
IEM & ITM Midwifery (A2)	4	4PP	79	0	0	0	0	0	0	79
ISTM Nurse Education & Admin. (EASI) (A1)	3	D6/A2	0	0	0	7	0	9	0	16
ISTM Nurse Education & Admin. (EASI) (A0)	5	A1	0	0	0	6	172	0	0	178
ISTM Nurse Neuropsychiatry (A1)	3	D6/A2	0	0	0	4	0	0	0	4
ISTM Nurse Pediatrics (A1)	3	D6/A2	0	0	0	38	0	0	0	38
ISTM Nurse Anesthesiologist (A1)	3	D6/A2	0	0	0	35	0	0	0	35
ISTM Nurse Anesthesiologist (A0)	5	A1	0	0	0	6	0	0	0	6
TOTAL			236	92	25	2723	2133	110	15	5334

Table 1b: Number of graduates last year by gender in the nursing and midwifery programs in the seven schools assessed

Type of program	Duration of training in years	Pre-requisites for admission	Number of graduates last year (Male and Female)															
			IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	**TOTAL**	IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	**TOTAL**
			M	M	M	M	M	M	M	**M**	F	F	F	F	F	F	F	**F**
ISTM General Nursing (A1)	3	D6/A2				142	228	30		**400**	-	-	-	511	628	18		**1157**
IEM & ITM Nursing Science (A2)	4	3PP	11	1	5	-	-	-	-	**17**	20	32	7	-	-	-	-	**59**
ISTM Midwifery (A1)	3	D6/A2	-	-	-	3	8		19	**30**	-	-	-	14	129		17	**160**
IEM & ITM Midwifery (A2)	4	4PP	0	-	-	-	-	-	-	**0**	0	-	-	-	-	-		**0**
ISTM Nurse Education & Admin. (EASI) (A1)	3	D6/A2	-	-	-	5	-	-	-	**5**	-	-	-	4	-	-	-	**4**
ISTM Nurse Education & Admin. (EASI) (A0)	5	A1	-	-	-	2	34	11		**47**	-	-	-	1	21	5		**27**
ISTM Nurse Neuropsychiatry (A1)	3	D6/A2	-	-	-	0	-	-	-	**0**	-	-	-	0	-	-	-	**0**
ISTM Nurse Pediatrics (A1)	3	D6/A2	-	-	-	3	-	-	1	**4**	-	-	-	8	-	-	16	**24**
ISTM Nurse Anesthesiologist (A1)	3	D6/A2	-	-	-	13	-	-	-	**13**	-	-	-	4	-	-	-	**4**
ISTM Nurse Anesthesiologist (A0)	5	A1	-	-	-	2	-	-	-	**2**	-	-	-	1	-	-	-	**1**
TOTAL			11	1	5	170	270	41	20	**518**	20	32	7	543	778	23	33	**1436**

Type of program	Duration of training in years	Pre-requisites for admission	TOTAL GRADUATED LAST YEAR							
			IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	TOTAL GRADUATED LAST YEAR (Male and Female)
ISTM General Nursing (A1)	3	D6/A2	0	0	0	653	856	48	0	1557
IEM & ITM Nursing Science (A2)	4	3PP	31	33	12	0	0	0	0	76
ISTM Midwifery (A1)	3	D6/A2	0	0	0	17	137	0	36	190
IEM & ITM Midwifery (A2)	4	4PP	0	0	0	0	0	0	0	0
ISTM Nurse Education & Admin. (EASI) (A1)	3	D6/A2	0	0	0	9	0	0	0	9
ISTM Nurse Education & Admin. (EASI) (A0)	5	A1	0	0	0	3	55	16	0	74
ISTM Nurse Neuropsychiatry (A1)	3	D6/A2	0	0	0	0	0	0	0	0
ISTM Nurse Pediatrics (A1)	3	D6/A2	0	0	0	11	0	0	17	28
ISTM Nurse Anesthesiologist (A1)	3	D6/A2	0	0	0	17	0	0	0	17
ISTM Nurse Anesthesiologist (A0)	5	A1	0	0	0	3	0	0	0	3
TOTAL			31	33	12	713	1048	64	53	1954

Table 1c: Maximum capacity for admissions and total number of registered students in all classes/years in the seven schools assessed

Type of program	Duration of training in years	Pre-requisites for admission	Maximum capacity for new admissions each year								Total number of registered students in the program (last year, all years/levels combined)							
			IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	**TOTAL**	IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	**TOTAL**
ISTM General Nursing (A1)	3	D6/A2				2300	800	100		**3200**	-	-	-	6061	1872	235	-	**8168**
IEM & ITM Nursing Science (A2)	4	3PP	58	80	25					**163**	157	142	24		-	-	-	**323**
ISTM Midwifery (A1)	3	D6/A2	-	-	-	220	100	100	40	**460**	-	-	-	296	242	54	17	**609**
IEM & ITM Midwifery (A2)	4	4PP	59	-	-	-	-	-	-	**59**	79				-	-	-	**79**
ISTM Nurse Education & Admin. (EASI) (A1)	3	D6/A2	-	-	-	40	-	-	-	**40**	-	-	-	-	-	15	-	**15**
ISTM Nurse Education & Admin. (EASI) (A0)	5	A1	-	-	-	20	150	20	-	**190**	-	-	-	-	219	-	-	**219**
ISTM Nurse Neuropsychiatry (A1)	3	D6/A2	-	-	-	20	-			**20**	-	-	-	5	-	-		**5**
ISTM Nurse Pediatrics (A1)	3	D6/A2	-	-	-	30	-		40	**70**	-	-	-	182	-	-	36	**218**
ISTM Nurse Anesthesiologist (A1)	3	D6/A2	-	-	-	50	-	-	-	**50**	-	-	-	74	-	-	-	**74**
ISTM Nurse Anesthesiologist (A0)	5	A1				20	-	-	-	**20**	-	-	-	-	-	-	-	**0**
TOTAL			117	80	25	2700	1050	220	80	**4272**	236	142	24	6618	2333	304	53	**9710**

Annex 2: Number of Teachers by Type and Gender

Table 2a: Number of full-time and part-time educators last year by type

Type of Educator	Number of Educators (last year) FULL TIME																TOTAL FULL TIME (actual)
	IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	**TOTAL**	IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	**TOTAL**	
	M	M	M	M	M	M	M	**MALE**	F	F	F	F	F	F	F	**FEMALE**	TOTAL
Clinical Trainers (CPPs)*	4	2	5	0	10	8	2	**31**	5	3	9	1	6	0	2	**26**	57
Assistants	0	0	0	52	24	13	1	**90**	0	0	0	14	7	0	1	**22**	112
Lecturers (Chargés d'enseignement)	0	0	0	3	0	0	0	**3**	0	0	0	3	0	0	0	**3**	6
Senior Lecturers (Chefs des Travaux)	0	0	0	116	16	0	0	**132**	0	0	0	19	4	0	0	**23**	155
Associate Professors (Professeur Associé)	0	0	0	10	0	0	0	**10**	0	0	0	2	0	0	0	**2**	12
Professors	0	0	0	7	0	0	0	**7**	0	0	0	1	0	0	0	**1**	8
Full Professors	0	0	0	11	0	0	0	**11**	0	0	0	0	0	0	0	**0**	11
TOTAL	4	2	5	199	50	21	3	**284**	5	3	9	40	17	0	3	**77**	361

Type of Educator	Number of Educators (last year) PART TIME																TOTAL PART TIME (actual)
	IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	**TOTAL**	IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	**TOTAL**	
	M	M	M	M	M	M	M	**MALE**	F	F	F	F	F	F	F	**FEMALE**	TOTAL
Clinical Trainers (CPPs)*	4	8	5	0	0	0	1	**18**	2	2	2	0	0	0	2	**8**	26
Assistants	0	0	0	7	13	7	6	**33**	0	0	0	1	0	0	3	**4**	37
Lecturers (Chargés d'enseignement)	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	**0**	0
Senior Lecturers (Chefs des Travaux)	0	0	0	20	12	2	1	**35**	0	0	0	0	0	0	0	**0**	35
Associate Professors (Professeur Associé)	0	0	0	15	8	0	2	**25**	0	0	0	0	1	0	0	**1**	26
Professors	0	0	0	10	18	0	0	**28**	0	0	0	1	0	0	0	**1**	29
Full Professors	0	0	0	17	12	0	0	**29**	0	0	0	0	1	0	0	**1**	30
TOTAL	4	8	5	69	63	9	10	**168**	2	2	2	2	2	0	5	**15**	183

M=Male, F=Female; *For IEM and ITM Institutes (secondary education), clinical trainers (CPPs) are used for both classroom and clinical teaching

Table 2b: Number of full-time and part-time educators needed by type

Type of Educator	Additional Needed FULL TIME								Additional Needed PART TIME								TOTAL (additional needed)
	IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	**TOTAL FULL TIME**	IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMASHI	ISTM RUTSHURU	ISTM TSHIKAJI	**TOTAL PART TIME**	
								FULL								**PART**	TOTAL
Clinical Trainers (CPPs)*	3	2	0	10	14	7	2	**38**	0	0	0	0	0	0	2	**2**	40
Assistants	0	0	0	60	20	15	3	**98**	0	0	0	0	0	0	0	**0**	98
Lecturers (Chargés d'enseignement)	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	**0**	0
Senior Lecturers (Chefs des Travaux)	0	0	0	40	20	5	2	**67**	0	0	0	0	0	0	0	**0**	67
Associate Professors (Professeur Associé)	0	0	0	50	9	0	0	**59**	0	0	0	10	0	0	0	**10**	69
Professors	0	0	0	35	18	0	3	**56**	0	0	0	15	0	0	0	**15**	71
Full Professors	0	0	0	25	13	0	0	**38**	0	0	0	15	0	0	0	**15**	53
TOTAL	3	2	0	220	94	27	10	**356**	0	0	0	40	0	0	2	**42**	398

Annex 3: Synthesis of Results in the Nine Assessment Categories

Structure of Educational Programs

STRUCTURE OF EDUCATIONAL PROGRAMS								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
1. Types of programs	– Types of degree, certificate, or other programs – Length of each program in years (or months)	***Strengths:*** - Five A2-secondary school programs offered in total (Nursing, midwifery, laboratory, Assistant pharmacists, Sanitation technicians)	***Strengths:*** - Four-year (A2 secondary school program) general nursing certificate is offered. In 2012-2013, midwifery training will be added.	***Strengths:*** - - Only one nursing program (A2) and Laboratory (A2) are available	***Strengths:*** - Six programs in total: General nursing A1, midwifery A1, neuro-psychiatry A1, Pediatrics A1, EASI A1 & L2 and Anesthesia A1 & L2.	***Strengths:*** - - six programs in total: three diploma (A1): General nursing, Midwifery and Nutrition & three degree programs (A0): EASI, Laboratory and Management (A0)	***Strengths:*** - Four diploma programs A1 offered in total: Nursing, midwifery, Ed/Admin & Laboratory	***Strengths:*** - Two diploma (A1) programs (nursing pediatric & Midwifery)
		Challenges: _	***Challenges:*** - Nursing-only offered. School does not expose students to other student cadres.	***Challenges:*** - n/a	***Challenges:*** - There are only two L2 level programs, anesthesia and Ed./Admin, none for nursing or midwifery	***Challenges:*** - Only General nursing and midwifery diploma programs are available	***Challenges:*** _ There is no degree program	***Challenges:*** -This is a new institution (two years of existence) and has not started a degree program
2. Pre-requisite education	- Level/number of years of education required to enter each program	***Strengths:*** - (Six years, High school or professional training/A2)	***Strengths:*** - 3 years of secondary school	***Strengths:*** 3 years post-primary education	***Strengths:*** - (see table 1)	***Strengths:***	***Strengths:*** - (six years, High school or professional training/A2)	***Strengths:*** (Six years, High school or professional training/A2)
		Challenges:	***Challenges:*** - n/a	***Challenges:***	***Challenges:*** - Primary school education is poor	***Challenges:***	***Challenges:***	***Challenges:***
3. Number of students	– Total number of students currently enrolled in each program – Number of	***Strengths:*** -	***Strengths:*** - General nursing: 33 graduates (1 male), 154 enrolled (12 men, 142	***Strengths:*** - Nursing: 12 graduates (5 males and 7 females) - Equal number of	***Strengths:*** - 653 General nursing graduates last year	***Strengths:*** - General Nursing: 857 graduates (228 males & 629 females) - Midwifery: 137	***Strengths:*** - General nursing graduates 48 (30 males), EASI: 16 graduates (11 males)	***Strengths*** -

STRUCTURE OF EDUCATIONAL PROGRAMS								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
	students graduated by program in the past year – Sex distribution of students that graduated		women)	admissions to the school maximum capacity		graduates (8 males & 129 females - Nursing Ed/adm: 55 graduates (34 males & 21 females)		
		Challenges: - Very few graduates General nursing:31 (35% were males); only 14 from laboratory, 5 from pharmacy and 4 from hygiene and sanitation) - No midwifery graduates	***Challenges:*** - 92 students admitted last year; maximum capacity of new admissions is 80 students. - Graduation rate slower than admission rate.	***Challenges:*** -	***Challenges:*** - Few graduates 35 (26 males) from Ed/Admin - Only 17 midwifery graduates last year (A1) - 80% female, except in Ed./Admin - 70% male in specializations (A0)	***Challenges:*** - imbalanced gender among graduates (73% males from nursing & 94% of females in midwifery)	***Challenges:*** - Few admissions in Laboratory and Ed/Admin programs - Not yet midwifery & Laboratory graduates - More males graduate than females	***Challenges:*** - Not yet graduates - School maximum capacity not reported
4. Practical training (see section on clinical practice)	– Year in which practical training begins in each program – Duration of practical training in each program – Proportion of the program spent in theory/classroom versus practice/skills lab or clinic by program	***Strengths:*** - clinical training begins in first year - the duration estimated generally good by majority of respondents	***Strengths:***	***Strengths:*** - Clinical training begins in first year and duration estimated good	***Strengths:*** - Practice begins in first year	***Strengths:*** - clinical training begins in first year	***Strengths:*** - Clinical training begins in first year and duration estimated good	***Strengths:*** -
		Challenges: - Unknown proportion theory/classroom	***Challenges:***	***Challenges:*** - Unknown proportion theory/classroom	***Challenges:*** - Unknown proportion theory/classroom	***Challenges:*** Unknown proportion theory/classroom	***Challenges:*** - A large proportion (83%) of surveyed teachers reported that clinical training	***Challenges:*** - 91% of surveyed teachers reported that clinical training

STRUCTURE OF EDUCATIONAL PROGRAMS								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
	–	-			-		- that clinical practices begin in 3rd year - The duration of training estimated "short" by a large number of respondents students, teachers and management - Unknown proportion theory/classroom	- begins in 3rd year - Unknown proportion theory/classroom
5. Type of ownership	– Public/private – Non-profit/for profit – Other	- Public - Non-profit - Under the authority of MOPH	- Public - Non-profit - Managed by the Catholic church - Under the authority of MOPH	- Private subsidiary - Non-profit - Managed by the Presbyterian church - Under the authority of MOPH	- Public - Non-profit - Under the authority of MINESU	- Public - Non-profit - Under the authority of MINESU	- Public - Non-profit - Under the authority of MINESU	- Private - Non-profit - Managed by the Presbyterian church - Under the authority of MINESU

Category 1: Educators (Includes all those involved in the delivery of the educational program - teachers, preceptors, supervisors, directors of schools, inspectors, academic services)

CATEGORY 1: EDUCATORS								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
1.1 Quantity	– Number of educators by type, age group and sex (e.g. faculty, teachers, preceptors) – Sex ratio of educators* – Proportion of educators who are full time – Perceived availability of educators	***Strengths:*** - See Table 2 - 60% full-time educators - Balanced gender among teaching staff - >60% students reported general and practical teachers moderately to always available	***Strengths:*** - See Table 2 - 15 teachers (3 men/2 women full-time; 8 men and 2 women part-time) - Vast majority of teachers perceived to be moderately to always available	***Strengths:*** - See Table 2 - 67% full-time teachers - Of full time teachers, 64% are females - >50% students reported all teachers moderately to always available.	***Strengths:*** - See Table 2 - 77% full time	***Strengths:*** - See Table 2 - 51% full time educators - >70% of students report general teachers as moderately to always available.	***Strengths:*** - See Table 2 - 70% full time educators - No more part-time needed - . - >60% of students reported general teachers as moderately to always available	***Strengths:*** - See Table 2 - >80% of students reported practical teachers moderately to always available (the majority had not opinion on the availability of general teachers and CPPs)
		Challenges: - There is need for 3 additional teachers - As part of secondary education, there is no need for academic rank - Insufficient number of clinical trainers - 45% students reported CPPs not available	***Challenges:*** - Requires 2 more full-time teachers. - 67% part-time teachers - 67% of teachers are male compared to majority female students. -	***Challenges:*** - No need for additional teachers - Of part-time teachers 71% are males	***Challenges:*** - Need to double the number of full-time educators (from 239 to 459) - Majority are lecturer level. 19 professors of 310 total educators (6%). Only one CPP - Large proportion nearing retirement - More than 80% are male - >60% midwifery and 50% nursing students reported	***Challenges:*** - 94 more full-time educators needed - Desire to have 40 full-time Professors - No full-time educators with a rank above Senior Lecturer - More than half of teachers have the rank of assistant - More male (75%) educators than female - Only 3% females among part-time educators. - > 70% of students report CPPs as	***Challenges:*** - 27 full-time teachers needed in addition to existing 21 in total - No female teacher among part-time & full-time teachers - No educators at professor level - <40% midwifery and <30% nursing students reported CPPs as moderately to always available.	***Challenges:*** - 12 more teachers needed, including 3 Professors - Only one full-time senior lecturer others are Assistants and CPP. - 68% part-time teachers

CATEGORY 1: EDUCATORS								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
					educators as moderate to never available	moderately to never available		
1.2 Attraction	– Factors that attract health workers to become educators. – Presence of gender related criteria in recruitment of educators*	- Attracted by teaching & opportunity for career development	- 70% chose profession because they had always wanted to teach - 30% teach because they had no other choice	- 60% of surveyed teachers chose teaching because they would benefit from Professional career development	- Attracted by teaching, opportunity for development, flexible hours	- Attracted by teaching, opportunity for development & always wanted to teach	- The majority of teachers are passionate about teaching	- Attracted by teaching (74%) & opportunity for career development
1.3 Retention	– Turnover rates of educators by type (new entries versus leavers). – Average age of teaching staff. – Factors that retain health workers in educator positions. – Presence of incentives to retain educators (e.g. salary, benefits, research opportunities, publications, CPD, etc.).	***Strengths:*** - No resignations - Young teaching staff with an average age of 29 years - Salaries from the government	***Strengths:*** - Young and dynamic teaching staff.	***Strengths:*** - Only one female teacher resigned for the last 10 years preceding this survey	***Strengths:*** - No resignations - Salaries from government plus bonus from school	***Strengths:*** - No resignations for 10 years preceding the survey - 42 is the median age of educators (58% less than 45 years old). - Salaries from government plus bonus from school - Study opportunities	***Strengths:*** - No resignations - 50% of educators surveyed less than 45 years old - Transport costs plus bonus and government salary	***Strengths:*** - No resignations - 39 is the average age of teachers - Some wages paid in addition to salary
		Challenges:	***Challenges:*** - No retention strategy other than salary and motivation through management - 17% of male teachers and 17% of female teachers resigned in last 2 years. - 33% of male teachers resigned in	***Challenges:*** - Majority of staff surveyed were 45 years and older	***Challenges:*** - Advanced average age of educators is a concern (over 50 years)	***Challenges:***	***Challenges:***	***Challenges:***

CATEGORY 1: EDUCATORS								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
			last 3-5 years.					
1.4 Quality Qualified Training in teaching/ learning methods Education and training pathways to become educators	– Proportion of educators who also work as clinicians in health services. – Average number of years of service. – Perceived quality of educators – Number/proportion of educators with post graduate level of education – Proportion of educators by type (e.g. teachers, faculty, preceptors) with training in pedagogy/teaching/learning approaches and methods. – Availability/quality /appropriateness of training programs for educators.	***Strengths:*** - Teachers of theoretical subjects also participate in clinical training - More than 50% of teachers had more than 5 years of experience - Majority (83%) of teachers felt qualified for their current position	***Strengths:*** - More than half of teachers work in health care institutions. - Local teachers available. - 80% of teachers surveyed have taught for over 6 years; 15% had 11 years' or more experience. - Teachers trained in teaching, administration and nursing (EASI). - Management and students satisfied with quality of teaching	***Strengths:*** - 45% of teachers also work in clinical health facilities - More than 55% of teachers had more than 6 years of experience in teaching - Management and students satisfied with the quality of teaching - Teachers receive pedagogy seminars before teaching	***Strengths:*** - Majority more than 6 years of service - Midwifery students satisfied with CPP and general course teachers	***Strengths:*** - 50% work in clinical facilities - 44% of educators have more than 6 years of experience	***Strengths:*** - 52% work in clinical facilities	***Strengths:*** - The majority of teachers also work at hospital Bon Berger that is next to the Institute - Half of surveyed teachers had an experience of more than 15 years - The School management satisfied with the quality of academic personnel
		Challenges: - The vast majority (99%) of full-time teachers do not combine teaching with other jobs in health facilities - Insufficient training of educators	***Challenges:*** - 89% of teachers felt under-qualified for the current position - 67% have no specialization training - Half received no teaching skills training	***Challenges:*** - 77% of teachers felt under-qualified for the current position	***Challenges:*** - 25% work in clinical facilities - 47% of teachers felt under-qualified for their current position - Insufficient training of educators - Nursing students dissatisfied with teaching abilities - No post graduate	***Challenges:*** - Insufficient training of educators - 64% of educators felt under-qualified for their - More than 60% of students dissatisfied with teaching ability of their educators - Not able to train teachers at ISTM doctorate level	***Challenges:*** - Majority (78%) of educators have experience between only 1-5 years - 83% of teachers felt under-qualified for their current position - >60% of students surveyed feel teachers don't have required teaching skills	***Challenges:*** - 79% of teachers felt under-qualified for their current position - Insufficient training of educators - >80% of students feel teachers don't have required teaching skills

CATEGORY 1: EDUCATORS								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
					training. Not able to train teachers at ISTM doctorate level (must leave country)	(must leave) - Lack of qualified midwife educators	- No available training program for teachers - Insufficient training of educators	
1.5 Continuing professional development	– Presence of a staff development policy and/or plan at the school and at the training clinics. – Number and proportion of educators by type who participated in CPD courses in the past year. – Presence of CPD opportunities for teachers/faculty/preceptors (within and outside the institution). – Existing staff development opportunities	***Strengths:***	***Strengths:*** - New teachers attend teaching seminar at beginning of each year.	***Strengths:*** - Majority of educators qualified from EASI (Nursing Education and Administration)	***Strengths:*** - Staff training policy (poor plan/ implementation)	***Strengths:***	***Strengths:***	***Strengths:***
		Challenges: - -No staff development policy - 70% reported no training in pedagogy	***Challenges:*** - No professional path for teachers	***Challenges:*** - 100% of surveyed teachers said there was no career professional development plan	***Challenges:*** - Limited pedagogical training (26% trained) - Poor CPD	***Challenges:*** - Limited pedagogical training (28% trained) - Non-existence of CPD (89% of educator respondents)	***Challenges:*** - Limited training in pedagogy (33% trained) - Poor CPD	***Challenges:*** - No staff development policy - 36% of teachers had training in pedagogy

*Indicates a gender-related indicator

Category 2: Students

CATEGORY 2: STUDENTS								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
2.1 Quantity	– Number of students total – Average class size – Ratio of students to teachers	***Strengths:*** - See Table 1 - Average number of student per class of 50 - 15 students per all teachers (15:1); 26 students per full-time teacher	***Strengths:*** - See Table 1 - Average number students per class <25. - 9 students per all teachers (9:1); 28 students per full-time teacher	***Strengths:*** - See Table 1 - No student response for average class size (educators reported over 100 per class) - 3 students per full-time teacher	***Strengths:*** - See Table 1	***Strengths:*** - See Table 1	***Strengths:*** - See Table 1 - 10 students per all teachers (10:1); 14 students per full-time teacher	***Strengths:*** - See Table 1 - <25 students per class in nursing - 3 students per all teachers (3:1); 8 students per full-time teacher
		Challenges:	***Challenges:***	***Challenges:***	***Challenges:*** - Large number of nursing students; almost 6,000 in A0+A1 - Relatively few midwifery students; 92 in A1 - Average of 76-100 students per class - 106 students per teacher in nursing - 12 students per teacher in midwifery	***Challenges:*** - Majority: 76-100 students per class - 50 students per teacher in nursing - 8 students per teacher in midwifery	***Challenges:*** - Majority of teachers estimate 51-75 students per class	***Challenges:*** - More than 100 student per class in midwifery
2.2 Attraction	– Factors that attract students to the profession. *Noted in order of frequency*	***Strengths:*** 1. Helping people in need	***Strengths:***	***Strengths:*** 2. Helping other people 3. Better possibilities for employment 4. Better career progression and salary	***Strengths:*** 1. To help others	***Strengths:*** 2. Helping people in need 3. Always wanted to be a midwife	***Strengths:*** 2. Better employment and salary opportunities	***Strengths:*** 1. Better employment and salary (students) 2. Help others (clinical directors)
		Challenges: - Family pressure 3. job opportunities after graduation	***Challenges:*** 1. Family influence as main motivation for nursing	***Challenges:*** 1. Family influence	***Challenges:*** 2. Family influence/pressure most frequent reason for	***Challenges:*** 1. Family influence 4. Forced by government	***Challenges:*** 1. Family influence	***Challenges:*** - Family influence (clinical directors)

CATEGORY 2: STUDENTS								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
					midwifery (second most frequent for nursing) 3. Better employment opportunities (work abroad) 4. Forced by government also mentioned			
2..3 Selection	– Criteria used for students' selection – Stakeholders involved in students' selection – Presence of gender related criteria in student selection* – Quality of secondary education.	***Strengths:*** - Selection criteria in place - Entrance exam - Certificates and report cards from secondary school - Application form - Competitive – not all students accepted.	***Strengths:*** - Selection criteria in place - Pre-requisite 3 years of secondary school. - Gender, religious beliefs are not admission criteria.	***Strengths:*** - Selection criteria in place - Pre-requisite 3 years of secondary school	***Strengths:*** - Selection criteria are in place - Based on previous achievements (>60% on state exams) - Admissions exam set by teachers - Pre-requisites of secondary nurse training (IEM/ITM-A2) for Anesthesia and education/admin (EASI) tracks	***Strengths:*** - Selection criteria in place - High school certificate - Admissions exam - Competitive based on abilities - Selected by the institute	***Strengths:*** - Selection criteria in place - Admissions exam - Pre-requisite of ITM for EASI and midwifery programs - Management satisfied with quality of ITM candidates	***Strengths:*** - No information on selection provided
		Challenges: - "quality of secondary education depends on school attended"	***Challenges:*** - Central entrance exam organized by the MoPH and complete file. - Stewardship and criteria for admissions not clear to teachers and students; Ministry selects the students, not the school itself	***Challenges:*** - Centralized competition for admissions, which doesn't allow the school to choose its students - Some secondary schools refuse to send the student files to the central process - A large proportion of candidates leave school	***Challenges:*** - Selection criteria set by school and MINESU (no involvement of other stakeholders) - No gender criteria - Poor quality of secondary education	***Challenges:*** - If space, even students who have poor scores on the admissions exam are admitted	***Challenges:*** - Students who do poorly on the entrance exam are also recruited depending on school maximum capacity (admissions exam not useful)	***Challenges:***

CATEGORY 2: STUDENTS								
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				inadequately prepared, with poor French skills				
2.4 Admissions	– Number of new students admitted in the past year versus capacity. – Sex ratio (male/female) for new admissions.* – Geographical origin (proportion of students from rural areas) for new admissions. – Proportion of students from disadvantaged families (i.e. low SES) for new admissions.	***Strengths:*** - See Table 1	***Strengths:*** - See Table 1 - Gender-blind admissions	***Strengths:*** - See Table 1 - Balance in admissions (24) versus maximum capacity (25)	***Strengths:*** - See Table 1	***Strengths:*** - See Table 1 - Gender balance in allied health sciences and laboratory	***Strengths:*** - See Table 1 - Gender balance overall (28% female in nursing, 70% female in midwifery, 33% in admin and education)	***Strengths:*** - See Table 1
		Challenges: - Admissions in previous year greater than school maximum capacity (admitted 236, with 117 capacity) - 77% of students admitted last year were female. - <15% from rural areas (88% midwifery and 95% of nursing students come from peri-urban areas)	***Challenges:*** - Admissions exceeded capacity last year (92 admitted with maximum capacity of 80). - 93% female admissions (6 male, 86 female). - Geographical and SES origin of students unknown	***Challenges:*** - Majority of admitted are female (60%) - Only 25% of surveyed students come from rural area	***Challenges:*** - Exceeding admissions capacity (2723 admitted/ 2700 capacity) - Below capacity for midwives (92 admitted / 220 capacity) - A1 level midwives 90% female, nurses 80% female - A0 level >60% male in anesthesia, neuropsychiatry and education and nursing administration - <25% from rural areas both nursing and midwifery	***Challenges:*** - Double the number of admissions versus capacity (2133 admitted / 1050 capacity) - 67% of admissions are female. - Very low percent from rural areas: (Midwifery: 7%; 15% nursing)	***Challenges:*** - Under-utilization of school capacity (110 admitted / 220 capacity) -only 47% Nursing & 54% midwifery used - 83% of surveyed teachers believe that majority of applicants are not admitted - Though school located in rural area, 67% of nursing & 58% midwifery students self-reported to come from urban areas	***Challenges:*** - Incomplete data on institutional maximum capacity - 80% female admissions in midwifery - Majority of surveyed midwifery students (80%) and 70% of nursing come from peri-urban areas & only 13% 19% in midwifery & nursing respectively come from rural areas

CATEGORY 2: STUDENTS								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
2.5 Retention	– Number of students who dropped out per intake cohort in the last year (rate = number drop outs/number intake). – Presence of student counseling services. – Presence of financial assistance. – Reasons for dropping out – Presence of gender related procedure in student retention* – Presence of flexible academic schedule for pregnant students or students with young children*	***Strengths:*** - Small paying jobs at school given to very needy students, such as gardening and cleaning - Mentoring and peer support groups	***Strengths:*** - Some financial aid and student peer support groups reported.	***Strengths:*** - There is a system to determine student ability to pay - There is a system of financial aid (e.g. can work at hospital to earn money to pay studies) - Regular meetings with parents (trimestral) - Counseling and peer support groups	***Strengths:*** - Small proportion of drops outs (nursing 3%, midwives n/r) - Counseling, peer support and job placement support - Ability to pay in installments	***Strengths:*** - Small proportion of student drop outs (Midwifery: 3%; Nursing: 6%) - Ability to pay in installments - Distribute students in groups and encourage peer support	***Strengths:*** - Accept in-kind payments to cover school fees such as sacs of beans & sorghum	***Strengths:*** - Only one student dropped out (6% attrition rate)
		Challenges: - Large number of drop outs: nursing 17 (10%) and midwifery 24 (30%) - No system to determine capacity of students to cover school fees - Reasons for dropping out: Lack of financial means and early marriage	***Challenges:*** - 4 male and 2 female students dropped out in previous year (14%) due to: finances, pregnancy, and unsuitability to nursing. - No formal retention system	***Challenges:*** - 4 student drop outs (17%) including one female - Reasons for drop outs: Lack of financial means, indiscipline & lack of assistance of pregnant young students	***Challenges:*** - Lack of finances is main reason for drop outs, followed by illness, pregnancy, death/transfer of parents - Only 20 needy students receive free training each year. Need for government grants to students. - No gender-specific policy for retention	***Challenges:*** - Drop outs are due to high academic costs - No system to determine ability of students to pay fees - no financial and social assistance including scholarships support for students	***Challenges:*** - Number of students drop outs not reported - No support systems to retain students; no financial assistance system (except payments in kind accepted) - Teachers & students reported high school fees as main reason for drop outs	***Challenges:*** - No system in place to determine capacity of students to cover school fees - No financial or other support system for students - Reason for drop out: Lack of financial means
2.6 Graduation and Deployment	– Repeat rate (Number of students who repeated a class last year/number	***Strengths:*** - System exists to allocate students to placements	***Strengths:*** - Job assignment policy according to management; best students	***Strengths:*** - There is a system to support graduates in finding a job.	***Strengths:***	***Strengths:*** - Some managers mentioned a policy for internships	***Strengths:*** - Orientation to the nursing association during internship	***Strengths:***

CATEGORY 2: STUDENTS								
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	admitted in last year) – Graduation rate (Proportion of students who graduated in the last year = graduates in last year/admissions in last year) – Policy for registration – Proportion of graduates who registered for practice. – Policy for deployment – Support to graduates for deployment – System to track and connect with alumni		hired by the Catholic network.					
		Challenges: - No information on repeat rates - Graduation rate slower than admissions rate - 157 admitted, 31 graduated in nursing (20%) - No graduates registration system by a professional regulatory body	***Challenges:*** - No information on repeat rates - Graduation rate slower than admission rate. – 92 admitted, 33 graduated (36%) - Students / teachers unaware of job policy	***Challenges:*** - The majority of students repeat courses - Graduation slower than admissions -25 admitted, 12 graduated (48%) - No graduates registration system by a professional regulatory body	***Challenges:*** - No information on repeat rates - Small proportion of graduates compared to admissions -2723 admitted, 713 graduated (26%) - No graduate registration - No policy for deployment - No assistance for placement - Government responsible for employment	***Challenges:*** - No information on repeat rates - Average number of graduates versus admissions – 2,133 admitted, 1048 graduated (49%) - No graduates registration system by a professional regulatory body	***Challenges:*** - No information on repeat rates - Average number of graduates versus admissions – 110 admitted, 64 graduated (58%) - School management not aware of possible registration of its graduates before practice - No policy to assign graduates to internships	***Challenges:*** - School created in 2010. No graduates yet. - No graduates registration system by a professional regulatory body

*Indicates a gender-related indicator

Category 3: Financial Management of the Institution

CATEGORY 3: FINANCIAL MANAGEMENT OF THE INSTITUTION								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
3.1 Financing	– Sources of funding for the school – Contribution (proportion) of each funding source to the overall budget (e.g. %tuition and fees, % grants, % research, % service delivery). – Presence of gender budgeting process in the school* – Proportion of budget generate and/or allocated for post graduate studies and/or research	***Strengths:*** - The government pays salary and irregular premiums	***Strengths:*** - Government subsidizes some utilities, wages, risk premiums	***Strengths:*** - 20% public allocation to the school budget	***Strengths:***	***Strengths:*** - The government pays salary and premiums	***Strengths:*** - The government pays salary and premiums	***Strengths:***
		Challenges: - Student fees contribute 79% to the overall budget - No partners to support budget	***Challenges:*** - School operational budget largely covered by student fees (74%) - Budget does not allow for facility/equipment maintenance, student scholarships, or teacher transport stipends	***Challenges:*** - Student fees contribute 50% to the budget	***Challenges:*** - Lack of diversity of funding sources. 56% student fees, 27% public budget, 14% other - 65% of expenditures are salaries and premiums, and 13% on infrastructure	***Challenges:*** - School operational budget largely covered by student fees (85%)	***Challenges:*** - Student fees contribute 86% to the overall budget	***Challenges:*** - school fees contributes to 67% of the total budget 64% count for salary payment

Category 4: Infrastructure

CATEGORY 4: INFRASTRUCTURE								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
4.1 Classrooms/ lecture halls	– Number of classrooms/lecture rooms. – Number of students who can be seated in each classroom/lecture room. – Adequacy of classrooms (Electricity, heating/cooling, water and toilets)	**Strengths:** - 15 classrooms in total - The maximum sitting places range from 10 to 54	**Strengths:** - 4 classrooms sufficient for student volume (capacity 80, 35, 32, 30) and regularly used.	**Strengths:** - 4 classrooms in total with sufficient seating places - All schools well supplied with water and electricity.	**Strengths:** - Construction of new buildings is under way	**Strengths:** - Constructions underway	**Strengths:** - Government allocated funds and 4 classrooms constructed	**Strengths:** - 4 classrooms in total with 32, 31, 14 & 13 sitting places respectively - All classrooms well located
		Challenges: - Shortage of supply on water, electricity, ventilation and separate toilets for females and males	**Challenges:** - Classroom buildings need renovation and equipment (electricity, lighting, ventilation) - Students sit two per desk.	**Challenges:** - Renovation of existing classrooms needed	**Challenges:** - Under construction - 4 classrooms available, 19 needed - Seldom used. - Electricity, ventilation, equipment limited	**Challenges:** - 5/6 classrooms used belong to the University of Lubumbashi - Old buildings	**Challenges:** - Insufficient classroom - The school is renting a house down town for computer room and library	**Challenges:** - Shortage of classes according to more than 70% of surveyed students and teachers
4.2Skills labs	– Number of skills labs. – Number of students that each lab can accommodate at one time. – Average number of hours per day used. – Location, quality and convenience (functionality of the electricity, heating/cooling, and water supply). – (see Area 5 for equipment)	***Strengths:*** - One available skills lab - Skills lab can accommodate a maximum of 35 students	***Strengths:*** - 15-student capacity skills lab is well-located. - Medical laboratory often used by students.	***Strengths:*** - One available skills lab	***Strengths:*** - Location and hours are good	***Strengths:*** - Two available skills labs	***Strengths:*** -	***Strengths:***
		Challenges: - Skills lab had problem of location, light, space, old equipment, sanitation and water supply	***Challenges:*** - No A/V equipment, no computers/inter net, no toilets. - Limited electricity, water, lighting, ventilation, equipment, materials.	***Challenges:***	***Challenges:*** - 2 available, 5 needed - Sometimes used as classrooms - Each can hold 30 students - Seldom used (80% students never used) - No tap water	***Challenges:*** - Poor conditions of skills lab in terms of hygiene & sanitation, connection to water pipe and electricity	***Challenges:*** - No available skills lab	***Challenges:*** - There is no skills lab according to more than 80% of teachers and students' respondents

CATEGORY 4: INFRASTRUCTURE								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
4.3 Library	– Number of libraries. – Number of full and part-time librarian(s). – Number of student seats. – Presence of study area for students. – Library adequacy (location, space and hours of operation, stock and quality of materials (books, journals, procedures on text books loan, electronic materials, functionality of electricity, heating/cooling, water supply, toilets).	***Strengths:***	***Strengths:*** - 1 library	***Strengths:*** - One available library - 1 full-time specialized librarian - 2/3 of students access library - Internet available from the library & 63% of surveyed students access internet from the library	***Strengths:*** - One available library - Good location and opening hours	***Strengths:*** - One available library	***Strengths:*** - There is a small reading room	***Strengths:***
		Challenges: - The school has no library	***Challenges:*** - No full-time librarian - No seating area - Limited electricity, water, lighting, ventilation, space for storing books - No procurement system for materials/equipment	***Challenges:***	***Challenges:*** - 1 available, 1 needed. - Small space for storing books and reading - No internet - Seldom used by students	***Challenges:*** - Library with only 25 seats - Library with poor conditions (electricity, hygiene, sanitation and water) - Irregular supply of text books and learning materials - Limited opening hours	***Challenges:*** - The reading room is located far from the campus and has poor textbooks	***Challenges:*** - The school has no library
4.4 Computer lab with Internet	– Number of computer labs or rooms. – Number of computers. – Number of projectors – Number of full and part-time computer technician(s). – Adequacy of computer lab (hours of operation, electricity 24 hours	***Strengths:*** - There is one computer room - 7 computers	***Strengths:*** - 1 room with 10 seats - Computer technician always available.	***Strengths:*** - 1 computer room with - 8 computers connected to internet - 1 full-time technician	***Strengths:*** - 1 computer lab - 29 seats and 20 computers - 1 technician - Good hours	***Strengths:*** - 50 computers - Construction of a computer room under way	***Strengths:***	***Strengths:***
		Challenges: - only 5 of the 7 computers were functioning - limited opening hours & electricity	***Challenges:*** - Limited electricity, water, lighting, ventilation - No internet	***Challenges:*** - Only two hours allowed for students access to internet - Low internet	***Challenges:*** - 1 existing computer lab, 1 needed - Shared with other programs	***Challenges:*** - No available computer room	***Challenges:*** - small computer room with only 12 computers located out of the campus - No internet	***Challenges:*** - There is no computer room - There is no internet

CATEGORY 4: INFRASTRUCTURE								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
	per day, location and quality of computer labs). – Internet available at the computer lab – (see Area 5 for teacher/student access to personal computers and internet)	- Interruption of internet from a month preceding the survey	access in computer room	connectivity - Insufficient number of computers especially for teachers	- Limited access to internet - Limited electricity and ventilation - Small, old and off campus - 50% of students never use		connection	
4.5 Electricity, drinking water and sanitation (toilets)	- Sanitation available for teachers and students - Electricity 24/7 - Drinking water 24/7	***Strengths:***	***Strengths:*** - Electricity, drinking water, toilets available	***Strengths:*** - 12 toilets in good conditions - Good drinking water and electricity supply	***Strengths:*** - Toilets: 2 existing, 5 needed (n/r for midwifery)	***Strengths:***	***Strengths:***	***Strengths:***
		Challenges: - Water and electricity supply - Poor sanitation	***Challenges:*** - Limited electricity, drinking water, toilets	***Challenges:***	***Challenges:*** - Electricity drinking water, and toilets: students and teachers report they are absent/poor state	***Challenges:*** - Lack of water pipe - Electricity deficiency - Poor sanitation	***Challenges:*** - Water and electricity supply - Poor sanitation	***Challenges:*** - More than 90% of respondent s reported critical problems on electricity, water and sanitation
4.6 Lodging/ dormitories and cafeteria	– Number of dormitories – Number of beds – Presence – Quality	***Strengths:*** - 100 rooms available for students	***Strengths:*** - n/a	***Strengths:*** - Two separate dormitories (1 for males & 1 for females) in good conditions	***Strengths:***	***Strengths:***	***Strengths:***	***Strengths:***
		Challenges: - 60% and 59% of the surveyed nursing and midwifery students not accommodated - No cafeteria	***Challenges:*** - No dormitories or cafeteria present.	***Challenges:***	***Challenges:*** - No dormitories (0 available, 5 needed for nursing, n/r midwifery) - No cafeteria	***Challenges:*** - No available accommodation & housing for students and teachers - Inadequate cafeteria	***Challenges:*** - No available accommodation & housing for students and teachers - No cafeteria	***Challenges:*** - More than 90% of respondent s reported absence of accommodation and cafeteria at campus
4.7 Security	– Presence of locks on doors and windows – Wall/fence	***Strengths:***	***Strengths:*** - Good security system present.	***Strengths:*** - Good security system	***Strengths:***	***Strengths:***	***Strengths:***	***Strengths:***

CATEGORY 4: INFRASTRUCTURE								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
	– Security guard – Functioning lights	***Challenges:*** - Poor security system	***Challenges:*** - n/a	***Challenges:***	***Challenges:*** - Security system exists, but is in poor condition or never used	***Challenges:*** - Inadequate security system	***Challenges:*** - Very poor security due to frequent wars in the area	***Challenges:*** - Very poor security system (80% of surveyed students and 85% of teachers)

Category 5: Materials and Equipment for Educators and Students

CATEGORY 5: MATERIALS AND EQUIPMENT								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
5.1 Skills lab	– Availability of educational equipment (Student/teacher access to essential equipment e.g. anatomical models, simulators, etc.). – Number of equipment (Type and status). – (see Area 4 for skills lab infrastructure)	***Strengths:***	***Strengths:*** - Students report most materials available and in acceptable condition	***Strengths:*** - Anatomical models in good conditions - A large number of material and consumables reported available and in good conditions	***Strengths:***	***Strengths:*** - 69% of surveyed teachers happy with diagnostic equipment	***Strengths:***	***Strengths:***
		Challenges: - No anatomical models (67% of surveyed educators and 80% students) & poor other materials and equipment	***Challenges:*** - Anatomical models in poor condition - A/V equipment, computers and internet needed	***Challenges:***	***Challenges:*** - Anatomical models: 30 available, 220 needed - Simulators needed - Clinical/ diagnostic equipment needed	***Challenges:*** - Inadequate use of skills lab (never used by 55% of surveyed students) - Lack of anatomic models (55% of educators said not available)	***Challenges:*** - No available skills lab	***Challenges:*** - No anatomical models (86% of educator & 93% students' respondents)

CATEGORY 5: MATERIALS AND EQUIPMENT

Subcategories	Variables/Indicators	IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMBASHI	ISTM RUTSHURU	ISTM TSHIKAJI
5.2 Clinical Practice (Internship)	– Availability of equipment and consumables (Student/teacher access to essential supplies and equipment e.g. – Number of materials and equipment (type and status). (See Area 7 for clinical practice infrastructure, etc.)	***Strengths:***	***Strengths:*** - Diagnostic equipment generally present	***Strengths:***	***Strengths:***	***Strengths:*** - Surveyed teachers happy with existing materials and consumables for clinical training	***Strengths:*** - Reported good rapports with clinical training sites	***Strengths:***
		Challenges: - Critical shortage of material and consumables	***Challenges:*** n/a	***Challenges:***	***Challenges:*** - Clinical/ diagnostic equipment needed (2 to 10 times more)	***Challenges:*** - High student proportions suggest low use of thermometers, stethoscopes, delivery & resuscitation kits	***Challenges:*** - Critical shortage of material and consumables	***Challenges:*** - 70% of reported critical shortage of materials and consumables such as thermometer, detergent & antiseptics
5.3 Textbooks and learning materials	– Availability and updated learning materials and text books (journals, quantity of text books and readings) – Access to scientific journals – Satisfaction with the quantity, quality and affordability of textbooks and learning materials	***Strengths:***	***Strengths:*** - Books and periodicals available and in generally good condition	***Strengths:***	***Strengths:*** - 80% of students said they use eBooks	***Strengths:***	***Strengths:***	***Strengths:***
		Challenges: - Majority of teachers and students reported poor access to textbooks, - No access to e-books and e-journals	***Challenges:*** - Need for more textbooks and periodicals - Only 39% students have access to electronic journals	***Challenges:*** - Poor access to textbooks, periodicals & simulators	***Challenges:*** - Very limited availability of textbooks, periodicals, electronic journals and eBooks. (<25%) - 2 to 10 times more needed	***Challenges:*** - About 72% of surveyed teachers reported absence or poor conditions of textbooks - Very limited access to e-books and journals due to lack of internet	***Challenges:*** - Absence of textbooks reported in more than 80% of student respondents - No access to e-books, e-journals or periodicals	***Challenges:*** - The vast majority of teachers (90%) & all students reported no access to textbooks and electronic journals
5.4 Computers and Internet	– Proportion of teachers and students who own personal computers. – Proportion of teachers and students who use	***Strengths:*** - 70% of teachers own computers but only 17% use them for more than once a week - 74% of nursing students and 65% of midwifery	***Strengths:*** - 44% of teachers and students use a computer at least once a week	***Strengths:*** -	***Strengths:*** - 63% of teachers and more than 78% of students own a computer - 61% of teachers and >60% of students access internet at home	***Strengths:*** - 94% & 50% of surveyed teachers & students respectively declared to access internet from home	***Strengths:*** - more than 70% of surveyed students in each department own a computer and 80% use them daily	***Strengths:*** - 71% of teachers own computers but could only use them once in a week - 53% of nursing & 79% of midwifery students own

CATEGORY 5: MATERIALS AND EQUIPMENT								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
	a computer at least once per week. – (see Area 4 for computer labs and internet connection) – (see Area 6 for e-learning) – Availability of internet to students (locations, hours and days of operation, ratio connected PCs – students, quality of internet connection) – Average number of hours of access per week per student	students own a computer but only 16% & 32% nursing and midwifery respectively use them every day - No internet access at campus						computers and more than 90% use them daily
		Challenges:	***Challenges:*** - Only 33% of teachers and 40% of students own a computer. - Limited access on campus; no internet access at library.	***Challenges:*** - 78% of teachers do not own a computer but access them from school library once in a week - More than ½ of students do not own a computer. However, 2/3 could use them once in a week	***Challenges:*** - <20% of teachers and students access internet from the school computer room. - 47% of teachers and n/r% students use computers at least once per week	***Challenges:*** - 82% of surveyed teachers did not own a computer - 80% & 67% of surveyed midwifery & nursing students respectively own a computer - The Institute has no connection to internet	***Challenges:*** - 61% of surveyed teachers do not own a computer and 70% of them can use a computer less than once a week - No internet available for students and teachers on campus.	***Challenges:*** - No internet access
5.4 Teaching materials	– Availability – Quality – Etc.	***Strengths:***	***Strengths:*** - Students note teachers' use of projectors for teaching	***Strengths:***	**Strengths:**	**Strengths:** - Three projectors - Two screens - Three sound equipment	***Strengths:***	***Strengths:*** -
		Challenges: - 80% of surveyed teachers and students indicated absence of projectors, anatomical models & simulators. This was also confirmed by school management	***Challenges:*** - Dated documentation - Inadequate teaching materials and equipment - No modern technical room	***Challenges:*** - Absence of projector	**Challenges:** - 2 computer projectors available, 15 needed - Low use of projectors - Low use of photocopiers - Video available but rarely used - Equipment shared with other	**Challenges:** - Majority (more than 90%) of surveyed students declared absence of projectors, screens & sound system equipment. This might be an indication on low or lack of its use in the teaching	***Challenges:*** - Lecture method more applied due to critical shortage of teaching materials and ICT in particular	***Challenges:*** - almost all respondents reported absence of projector, simulators and sound system

CATEGORY 5: MATERIALS AND EQUIPMENT								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
					programs			

Category 6: Curriculum

CATEGORY 6: CURRICULUM								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
6.1 Duration	- Opinion and satisfaction with duration of the program of study	***Strengths:*** - Management, the majority of Teachers (84%) , and 45% of nursing students respondents satisfied with duration of training	***Strengths:*** - 70% of teachers and 85% of students felt the duration of the training was adequate.	Strengths: - All teachers and about ½ of surveyed students satisfied with overall duration of program including clinical theoretical & practical training	***Strengths:*** - Considered adequate by management and teachers - Midwifery: 22% no opinion, 34% adequate, 34% too long	***Strengths:*** - Teachers and management respondents satisfied with duration of training	***Strengths:*** - Revised curriculum has fewer hours to be more effective	***Strengths:*** - The management & all surveyed teachers felt the duration for clinical placements to be adequate
		Challenges: - 56% of midwifery students dissatisfied, estimating that it's too long	***Challenges:*** - None reported.	***Challenges:*** - None reported.	***Challenges:*** - Nursing: 40% no opinion, 38% too long, 15% adequate - Frequent strikes by teachers - Poor organization and availability of teachers - Cluttered with courses unrelated to work.	***Challenges:*** - Only 45% of the surveyed students satisfied with duration of their training - 33% of surveyed students did not have opinion on duration of their training - According to many students' responses, lack of auditoriums/classrooms affects the	***Challenges:*** - Only about 1/3 of surveyed teachers & students thought the duration of training was adequate - The school management consider the duration especially for practicum to be short	***Challenges:*** - About half of surveyed students did not have opinion on duration of clinical training

CATEGORY 6: CURRICULUM								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
						duration of training		
6.2 Student Competence	- Quality and relevance of graduates' skills and abilities - Proportion of students with confidence in their level of clinical skills	***Strengths:*** - The school management and half of surveyed teachers consider that their students were adequately prepared to work at different levels of health system	***Strengths:*** - Management and vast majority of students felt students were well-prepared or very well-prepared for practice	***Strengths:*** - Majority of teachers and nearly 2/3 of students indicated confidence in preparation of students to work at different levels of health system	***Strengths:*** - School management and 66% nursing & 56% midwifery students consider good preparation to work at different levels of the health system - Majority of nursing (92%) & midwifery students (80%) willing to work at community level	***Strengths:*** - Surveyed groups (management, teacher and students) are generally satisfied with the level of preparedness to work at different level of health system - All students surveyed from midwifery & 90% from nursing are willing to provide healthcare at community level	***Strengths:*** - More than ½ of Students believe their level of competence is good to work at different levels of health system - The management and teachers declared self-confidence in producing quality products	***Strengths:*** - Professional training A2 prepares well candidates to pursue nursing or midwifery studies - About all surveyed students indicated confidence on preparation to work at different health system levels
		Challenges: - Lack of confidence of students to work at different levels of health system except at community level (64% of respondent nursing students)	***Challenges:*** - None reported.	***Challenges:*** - 95% of surveyed students not willing to work in rural area	***Challenges:*** - None reported.	***Challenges:*** - Half of surveyed teachers think that students are not well prepared to work in hospitals	***Challenges:*** - None reported.	***Challenges:*** - None reported.
6.3 Evaluation of curricula	– Presence of functional curriculum review committee including stakeholders – Number of curriculum updates/revisions in	***Strengths:*** - A national recommended competency-based curriculum approach is in use	***Strengths:*** - Presence of a core skills, training and evaluation program - Program meets national standards	***Strengths:*** - Curricula evaluation follows national standards	***Strengths:*** - Every 5 years MINESU through a permanent committee conducts reviews of educational programs to align them with national	***Strengths:*** - Surveyed teachers support update of curriculum by integrating new scientific developments - Curriculum in use is subject to	***Strengths:*** - According to school management, curriculum in use is subject to review by the MINESU Committee	***Strengths:*** - Curriculum meets national standards.

CATEGORY 6: CURRICULUM								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
	the past 5 years – Types of stakeholders involved in the curriculum revision processes. – Frequency and focus of curriculum evaluation.		according to national reform committee.		health needs	review by the MINESU Committee		
		Challenges: - Review period of the current curriculum not known - 57% of teachers reported that some courses in the nursing and midwifery programs are not appropriate for the course of study	***Challenges:*** - None reported.	***Challenges:*** - Evaluation depends on the national curriculum review committee program	***Challenges:*** - More than ½ of surveyed teachers not aware of curriculum review periods - 89% of surveyed teachers suggest more updates on program content - 74% of teachers felt some subjects were not necessary for nursing and midwifery programs	***Challenges:*** - Large number of surveyed teachers seem to be not sure of curriculum review program	***Challenges:*** - None reported.	***Challenges:*** - Evaluation not possible until the first class of graduates completes their study in 2013
6.4 Pedagogy and IT	– Quality/appropriateness of teaching/learning methods used. – Quality/appropriateness of student assessment methods used. – Use of electronic materials for learning (e-books, online journals, etc.). – Use of computerized learning programs (e.g. inter-active learning software). – Use of computers for distance learning (e.g. video	***Strengths:*** - Results-based or clinical case approach used according to about one-quarter of students	***Strengths:*** - Some use of new technologies, including electronic course format, LCD projectors, and the internet used.	***Strengths:*** - Some students cited use of new teaching approaches and IT - 2/3 of teachers integrated some approach individually	***Strengths:*** - Combination of different teaching approaches	***Strengths:*** - 30% of students reported results-based or clinical case pedagogical approach	***Strengths:*** - Revised curriculum follows national standards and was streamlined	***Strengths:*** - None reported.
		Challenges: - Lecture method is the predominant teaching approach - Absence of ICT in teaching & learning approaches	***Challenges:*** - Obsolete computer and IT equipment makes use of IT difficult	***Challenges:*** - Limited use of ICT in teaching and learning approaches at ISTM Tshikaji	***Challenges:*** - Lecture method is the predominant teaching approach - 89% of teachers suggest curricula need updating - No use or very minimal use of ICT in teaching and learning of students	***Challenges:*** - Lecture method is the predominant teaching approach - Very limited used of ICT in teaching & learning approaches	***Challenges:*** - Lecture method is the predominant teaching approach - There is no means for teachers to integrate new methods in their courses - Absence of ICT in	***Challenges:*** - There is no use of ICT in teaching and learning approaches at ISTM Tshikaji

CATEGORY 6: CURRICULUM								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
	lectures, satellite transmission of clinical procedures/ehealth, webinars, online discussion groups) (see Areas 4 and 5 for computer labs, computer use and access to internet)						teaching & learning approaches	

Category 7: Clinical Practice

CATEGORY 7: CLINICAL PRACTICE								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
7.1 – 7.5 Sites/ Facilities	– Number of clinical practice sites by type (e.g. hospital, outpatient clinic, community clinic). – Average distance of practice sites, by type, from the school. – Capacity of clinical training sites to accept students – Transportation, accessibility, cost and security of clinical practice sites.	***Strengths:*** - 11 health facilities including three regional referral hospital - 4 km is the maximum distance to reach clinical training sites - Good number and variety of teachers - Site security generally good	***Strengths:*** - 3 district hospitals, 9 primary health care centers, 2 ambulatory clinics, and 9 chronic-care institutions within 25 km of site - Majority of students felt site supervision, number of students, time spent, number and variety of patients, and distance to sites was adequate - Management and	***Strengths:*** - 1 referral hospital, 1 health center and 1 polyclinic - Referral hospital specifically constructed to serve as teaching hospital; only 1km from school - Between 1-30 km is the maximum distance to reach health facilities for clinical placement - Majority of surveyed teachers, students and	***Strengths:*** - Three national referral hospitals - 17 district hospitals - 5 specialized outpatients services - 10 health centers - Distance to reach clinical training sites reasonable according to majority of students and teachers (<10km)	***Strengths:*** - 11 clinical training sites are used including National/Regional referral hospitals, emergency units, clinics and health centers - Respondents satisfied with the number of clinical training sites - Good capacity of clinical training sites to accommodate students according	***Strengths:*** - 35 clinical training sites in total are used ranging from regional referral to health centers - 15 km is an average distance to reach health facilities - Majority of surveyed teachers and students satisfied with variety of patients at clinical sites	***Strengths:*** - 1 referral hospital specifically constructed to serve as teaching hospital located less than 1km from the school - 1 polyclinic located at approximately 20 km from the Institute

CATEGORY 7: CLINICAL PRACTICE								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
			68% of students perceived security to be good	school management satisfied with most of items on practical training. - Site deemed secure		to management and teacher respondents - Good number and variety of patients at clinical training sites - Reasonable cost to reach clinical training sites according to a large number of surveyed teachers and students		
		Challenges: - Poor connection between theoretical and practical training - Medical equipment reported as poor by teachers	***Challenges:*** - Management felt inadequate: the number of sites and supervision; they felt the number of students per site and distance to sites to be too great. - Transportation and supervision viewed poorly by all. - 62% of faculty perceived security to be poor	***Challenges:*** - Inadequate hygiene and safety measures - Inadequate clinical training tools and equipment	***Challenges:*** - Majority of surveyed teachers (90%) & midwifery students (78%) and nursing students (61%) report bad or absence of transport to clinical training sites - Though there is a large number of clinical training sites, the capacity of these sites to accommodate students was felt minimal by majority of surveyed students and teachers	***Challenges:*** - 15 km is the average distance to reach clinical training sites - Among surveyed students (63% nursing & 43% midwifery) not satisfied with capacity of health facilities to accommodate students on clinical placements	***Challenges:*** - Security is a major challenge in the North Kivu area	***Challenges:*** - 92% of surveyed teachers said clinical placement sites were sufficient but not their capacity to accommodate more students - Students gave different opinions due probably to lack of clinical training experience

CATEGORY 7: CLINICAL PRACTICE

Subcategories	Variables/Indicators	IEM KAMALONDO	ITM KINTAMBO	ITM TSHIKAJI	ISTM KINSHASA	ISTM LUBUMBASHI	ISTM RUTSHURU	ISTM TSHIKAJI
7.6 Supervision/ Instruction	– Student to supervisor/preceptor ratio by type of practice site (e.g. hospital, outpatient clinic, community clinic). – Quality of instruction/supervision – Training/qualifications required to be a preceptor (see category 1.5 and 1.6 above) – Quality/appropriateness of clinical practice assessment and evaluation.	***Strengths:*** - 75% of students perceive good opportunity to practice under supervision - 57% of teachers perceive supervision to be good	***Strengths:*** - Supervisors present in the field and at school - 84% of students felt that they had good opportunity to practice under supervision - Good use of logbook, evaluation sheets, and student assessment according to students and teachers	***Strengths:*** - 66% of surveyed students satisfied with opportunity for practice - 73% satisfied with clinical training supervision	***Strengths:*** - Good opportunity for students to practice - Nursing management & students satisfied with students' practice and logbooks - Midwifery management satisfied with students' supervision, and clinical training tools	***Strengths:*** - Good opportunity for students to practice	***Strengths:*** - Good variety of patients seen at each site	***Strengths:*** - 86% of surveyed teachers reported good supervision
		Challenges: - About ½ of students in both nursing & midwifery programs and 40% of teachers indicated absence of students' supervision - Insufficient number of clinical supervisors according to management	***Challenges:*** - Inadequate supervision, including student evaluation and assessment - Poor student conditions	***Challenges:*** - High turnover of clinical site supervisors and CPPs; need for additional CPPs - Limited education of current CPPs	***Challenges:*** - Majority of teachers (89%) and students in both nursing and midwifery programs not satisfied with supervision and link between theory and practice learning - Insufficient number of clinical trainers versus number of students	***Challenges:*** - Student to supervisor ratio not known - Absence of students' supervision (More than ½ of surveyed students)	***Challenges:*** - The school management dissatisfied with the quality of students training and supervision at clinical sites - More than 70% of students declared "absent" clinical supervision - Student to supervisor/clinical trainer ratio not known	***Challenges:*** - 79% of surveyed midwifery students reported supervision to be absent
7.7 Duration	– Number of hours, per year of study program, spent at clinical practice site (e.g. hospital, clinic, community).	***Strengths:*** - More than 60% of students estimate the duration for community placements to be	***Strengths:*** - Complies with program standards	***Strengths:*** - Duration for clinical placements appreciated by 2/3 of surveyed students	***Strengths:*** - 55% of teachers reported that over ¾ training time was dedicated to clinical practice	***Strengths:*** - Though number of hours for clinical placements not known, respondents from the management,	***Strengths:*** - Recent curricula revision has reduced number of course hours	***Strengths:*** - Proximity to clinical site from school reduces travel time

CATEGORY 7: CLINICAL PRACTICE								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
	– Sufficiency/adequacy of time spent at clinical practice site. – Adequate duration of clinical practice	sufficient				teacher, clinical training sites & midwifery consider the duration enough		
		Challenges: - The surveyed directors of clinical training sites estimated "short" the duration for clinical placements - Some students estimated the duration in referral hospital to be short	***Challenges:*** - None reported.	***Challenges:*** - Directors of clinical training sites felt students were weak in terms of motivation for learning & responding to theoretical questions	***Challenges:*** - School management and clinical training sites' managers not satisfied with duration of clinical placements - 46% of surveyed students had no opinion on duration for clinical placements	***Challenges:*** -47% of surveyed nursing students consider the duration for clinical placements too short	***Challenges:*** - The school management and 1/3 of surveyed nursing students and the vast majority (82%) of midwifery consider "short" the duration for clinical placements	***Challenges:*** - Majority of respondents did not have opinion on duration for clinical placements

Category 8: Quality Assurance (Note: This section should include laws, standards and policies that govern who can be a nurse or midwife)

CATEGORY 8: QUALITY ASSURANCE								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
8.1 Accreditation of institutions	– Policy on accreditation (Presence of an accreditation body, – Standards used for accreditation (date standards were last updated, process used and stakeholders involved)	***Strengths:*** - Accreditation process by the MINESU.	***Strengths:*** - Internal and external inspections take place regularly	***Strengths:*** - Regular supervision visits from the headmaster - Accreditation process by the MINESU	***Strengths:*** - Accreditation process by the MINESU	***Strengths:*** - Accreditation process by the MINESU	***Strengths*** - Accreditation process by the MINESU. - Available ministerial decree establishing the school in 2010	***Strengths:*** - Accreditation process by the MINESU.

CATEGORY 8: QUALITY ASSURANCE								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
	– Frequency and focus of accreditation/reaccreditation – Date school was last accredited – Frequency affiliated clinical practice sites are accredited. – Presence of an accreditation body	***Challenges:*** - Respondents not aware about accreditation system	***Challenges:*** - No formal accreditation of school or sites - No feedback provided after internal/external assessments	***Challenges:*** - No available accreditation system by a professional body	***Challenges:*** - No available accreditation system of school and clinical training sites by a professional body	***Challenges:*** - No available accreditation system by a professional body	***Challenges:*** - No available accreditation system by a professional body	***Challenges:*** - No available accreditation system by a professional body
8.2 Licensure/ Certification of Graduates	– Policy on Licensure/ Certification of graduates – Proportion of graduates who passed the certification exam – Date that the certification exam was last updated (process used and stakeholders involved in updating the exam)	***Strengths:*** - Rigorous admission criteria and internal and external performance evaluation undertaken	***Strengths:*** - Rigorous admission criteria and internal and external performance evaluation undertaken	***Strengths:*** - Rigorous admission criteria and internal and external performance evaluation undertaken	***Strengths:*** - Rigorous admission criteria and internal and external performance evaluation undertaken	***Strengths:*** - Rigorous admission criteria and internal and external performance evaluation undertaken	***Strengths:*** - Rigorous admission criteria and internal and external performance evaluation undertaken	***Strengths:*** - Rigorous admission criteria and internal and external performance evaluation undertaken
		Challenges: - No available registration & licensing system	***Challenges:*** - No available registration & licensing system	***Challenges:*** - No available registration & licensing system	***Challenges:*** - No available registration & licensing system	***Challenges:*** - No available registration & licensing system	***Challenges:*** - No available registration & licensing system	***Challenges:*** - No available registration & licensing system

Category 9: Partnership and Exchange

CATEGORY 9: PARTNERSHIP AND EXCHANGE								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
9.1 Faculty and student exchange	– Number of faculty members who participated in exchange opportunities for the last five years (for teaching, post graduate studies, research) – Number of students who participated in exchange opportunities for the last three years (for undergraduate studies, post graduate studies, research)	**Strengths:** - Exchange with sister institutions on teachers and about 5 teachers participate.	**Strengths:** - Availability of teaching staff and management for exchange programs and partnerships	**Strengths:** - Exchange with clinical training sites	**Strengths:** - 56% of surveyed teachers confirmed existence of exchange programs	**Strengths:** - 81% of surveyed teachers stated Collaborative research and training both at national and international levels	**Strengths:** - Use visiting teachers from University of Goma	**Strengths:**
		Challenges: - No available exchange program for students	**Challenges:** - No exchanges for school staff with other schools	**Challenges:** - No exchange for teachers and students	**Challenges:**	**Challenges:** - No available exchange program for students	**Challenges:** - No available exchange program for students	**Challenges:** - No available exchange program for students and teachers - Directors of clinical training sites lamented lack of collaboration between the training institution and clinical training sites
9.2 Partnerships with other universities, departments, schools or clinical services (outside and within the institution)	- Number of formal partnerships (MoUs) established between the school and clinical facilities or communities – Number of twinning partnerships – Types of technical assistance received from twinning partnerships – Number and type of research collaborations with twinning partnerships – Presence of inter school collaboration – Presence of inter	***Strengths:*** - 5 teachers participate in the-curriculum review in partnership with other institutions	***Strengths:*** - Existence of cooperation agreements with certain healthcare facilities for student internships	***Strengths:***	***Strengths:*** - There is partnership with 5 international universities: Mohamed V of Maroc, Lile of France, ULB & UCL of Belgium - collaboration with Canada and the above 5 universities to train teachers at	***Strengths:*** - There is twinning programs between two international universities Makerere, Uganda & KwaZulu-Natal, South Africa - Exchange with ISTM Kinshasa for education and training	***Strengths:***	***Strengths:***

CATEGORY 9: PARTNERSHIP AND EXCHANGE								
Subcategories	**Variables/Indicators**	**IEM KAMALONDO**	**ITM KINTAMBO**	**ITM TSHIKAJI**	**ISTM KINSHASA**	**ISTM LUBUMBASHI**	**ISTM RUTSHURU**	**ISTM TSHIKAJI**
	departmental collaboration				higher qualification levels (PhD)			
		Challenges:	***Challenges:*** -Lack of partnerships for students and teachers	***Challenges:***	***Challenges:*** - Less than ½ of surveyed students knew about existing students' exchange and no reported detail about this program	***Challenges:*** - No partnership at community level	***Challenges:***	***Challenges:*** - None reported
9.3 Sharing of infrastructure, facilities, and materials	- Presence of agreements with other departments, schools, faculties or institutions to share infrastructure, equipment or materials - Existing agreements between the school and other institutions (e.g. clinics, hospitals, university, other school) or departments to share materials and equipment?	***Strengths:***	***Strengths:*** - Existence of cooperation agreements with certain healthcare facilities for student internships	***Strengths:***	***Strengths:***	***Strengths:*** - Infrastructures shared with University of Lubumbashi	***Strengths:***	***Strengths:***
		Challenges: - None reported	***Challenges:*** - None reported	***Challenges:*** - None reported	***Challenges:*** - None reported	***Challenges:*** - None reported	***Challenges:*** - None reported	***Challenges:*** - None reported
9.4 Partnerships with professional councils and the labor market	- Presence of agreements with professional councils. - Existing relationship with future employers of graduates.	***Strengths:***	***Strengths:*** - n/a	***Strengths:***	***Strengths:***	***Strengths:***	***Strengths:***	***Strengths:***
		Challenges: - None reported	***Challenges:*** - n/a	***Challenges:*** - None reported	***Challenges:*** - None reported	***Challenges:*** - None reported	***Challenges:*** - None reported	***Challenges:*** - None reported