BACKGROUND

Kenya has nine regulatory bodies with a statutory mandate to regulate medical training and practice. Training regulation involves putting mechanisms in place to address the quantity, quality, and relevance of health professionals in order to improve service delivery and health outcomes. Training quality is enhanced by defining core competencies and minimum standards required in a health profession. Despite their mandate, most of Kenya’s regulatory bodies, prior to 2012, lacked clear policies and objective criteria for evaluating and accrediting training institutions including a consistent scoring system that would point out training gaps and areas for improvement.

The number of public and private training institutions offering health courses has increased rapidly in Kenya, accentuating the need for accreditation to safeguard the quality of training and assure the public of professional integrity and accountability. In the last ten years, the number of medical and dental schools has increased from two to 11, nurse training institutions from one to more than 100, and clinical officer training institutions from one to 35. An increased number of training institutions has also been reported for other health professions such as public health officers and technicians, nutritionists and dieticians, and laboratory technologists and technicians.

However, despite having more medical training schools and colleges, Kenya is still in need of more health workers to meet population needs. The country has only 1.98 doctors and 0.24 dentists for every 10,000 people. Data from the Global Health Workforce Alliance (2011) showed that Kenya has approximately 29,000 nurses in active practice in the public and private health sectors. This translates to a ratio of 0.74 nurses per 1,000 population, far below the World Health Organization (WHO)’s recommendation of a minimum of 2.5 nurses per 1,000 population.

1. Kenya Medical Practitioners and Dentists Board (KMPDB), Nursing Council of Kenya (NCK), Clinical Officers Council (COC), Public Health Officers and Technicians Council (PHOTC), Kenya Nutritionists and Dieticians Institute (KNDI), Kenya Medical Laboratory Technologists and Technicians Board (KMLTTB), Pharmacy and Poisons Board (PPB), Radiation Protection Board (RPB), Physiotherapy Council of Kenya (PSK)
3. http://medicalboard.co.ke/functions/approved-training-institutions/
5. http://clinicalofficerscouncil.org/online-services/approved-institutions/
7. The State of Nursing and Nursing Education in Africa by Hester C. Klopper and Leana R. Uys. The number of nurses in the private sector is lower and can only be estimated due to lack of adequate data. With its information system improving data from the private sector will soon be accurately available.
In September 2012, the Ministry of Health (MOH) through the FUNZOKenya project, led by IntraHealth International and funded by the President’s Emergency Plan for AIDS Relief (PEPFAR) through USAID, conducted a rapid training needs assessment of Kenya’s health workforce to identify high priority training needs. The assessment found significant gaps at six regulatory boards and councils, showing that course standardization needed to be addressed and guidelines provided in all key areas of training, including the minimum standards and curriculum content required to undertake training of respective cadres. The project provided technical and financial support to the boards and councils, including strengthening their capability in accrediting training institutions with the following specific objectives:

- Develop or review core curricula as a benchmark in the development of an institutional training curriculum
- Develop minimum training and accreditation standards and a credible tool for accrediting training institutions.

**TECHNICAL APPROACH/ METHODOLOGY**

The project supported regulatory bodies to put in place systems to govern training quality and ensure compliance with standards. The steps described below and illustrated in Figure 1 guided development or review of curriculum and training standards. The standards are updated by the respective regulatory bodies after the end of every cycle of a training program (three to five years depending on the program).

**Stakeholder identification and constitution of a technical working group (TWG):** The regulatory boards and councils formed a TWG of key stakeholders as an important step toward gaining ownership and accountability of the proposed regulations. These included training institutions (administrators, faculty, and students), public and private health facilities, statutory bodies responsible for education and training (Commission of University Education [CUE], Technical Vocational Education and Training [TVET], MOH), other relevant regulatory boards or councils, board members, county representatives, and technical specialists.

**Situational analysis:** To identify barriers to quality health service delivery that can be resolved through training, a stakeholders’ forum of public, private, and faith-based organizations and training institutions, health facilities, regulatory bodies, professional associations, development and implementing partners, national and county government officials was organized to review the current curricula and standards of training in the institutions, along with service delivery data and national statistics. A thorough analysis of literature; local, regional, and international experiences; and strengths, weaknesses, opportunities, and threats in training and practice was conducted, areas of improvement identified and recommendations made. The TWG consolidated this feedback to guide the development process.

**Framework and content development:** The TWG developed curriculum and training and accreditation standards frameworks to guide development of content. The curriculum framework includes rationale of the program,
expected learning outcomes, core competencies and skills, learning models and strategies, admission requirements including course exemptions and credit transfers, examination regulations including assessment, grading and moderation of exams, course evaluation, course structure and duration, core course content, course description/outlines, learning environment including teaching facilities and clinical placement facilities, accreditation, certification, and benchmarking.

The training and accreditation standards framework defines the particular standards required for the profession. The standards include governance and management of the training institution, training curriculum, minimum physical facilities, clinical training resources and placements, student admission policy and selection, counseling and support, welfare, accommodation, dress code, recreational facilities, faculty qualifications, recruitment and retention, program monitoring, evaluation and research, among others, that guide the training institutions in establishing and maintaining training programs and assuring quality.

**Validation:** Curricula, training, and accreditation standards developed by the TWG were reviewed during a stakeholders’ forum composed of the same group that participated in the situational analysis. This step was important to ascertain that all priority areas had been factored in, obtain feedback, and gain consensus on and approval of the documents. Inputs received were consolidated into a final draft that was edited and printed for dissemination.

**Dissemination:** The approved curricula and training and accreditation standards were officially disseminated at a stakeholders’ forum, which also served as a call to action for all training institutions to align their curriculum to the core curriculum as well as ensure adherence to standards prescribed for training health workers. Subsequent dissemination was undertaken through circulars sent to training institutions.

**Operationalization:** Implementation of the accreditation process included the following steps, as illustrated in Figure 2:

- Constitution of an accreditation team by the respective regulatory board or council composed of the secretariat, board members and technical experts and in some cases a representative from CUE and/or TVET.
- Official communication to the training institution of the planned inspection, including a copy of the accreditation checklist.
- Administration by the training institution of a self-assessment checklist to measure their compliance against set standards so that the inspection is an inclusive process and not punitive in nature. Regulatory bodies give the institutions between two weeks to a month to conduct the self-assessment before visiting the facility. As a requirement, all training institutions are issued the training and accreditation standards as a reference document so that they can assess their standards against what has been prescribed. The checklist is appended to this document and allows the institution to begin self-assessment even before they receive communication from the regulatory body.

![Figure 2: Accreditation process](image_url)
On the day of inspection a courtesy call is made to the head of the institution and/or head of department before commencement of the exercise.

A presentation by the training institution on status of compliance against set standards is made including a review of relevant policies, guidelines, and procedures as outlined in the checklist.

The accreditation team conducts interviews with the teaching staff in the absence of the management. Students representing all years of learning are also interviewed together in the absence of teaching staff. This process helps verify some of the information provided by management and assess the teaching and learning environment without fear of victimization.

A physical assessment of the training program’s learning facilities is undertaken including review of relevant documentation. This involves assessment of all computer, clinical and skills laboratories, libraries, learning and recreational facilities.

Upon completion, a consultative debrief session is held to present preliminary findings. The institution is not required to respond comprehensively to the findings until an official report is sent.

A detailed inspection report is written by the accreditation team immediately after inspection detailing the institution’s performance against set standards, gaps, and providing recommendations where applicable and accreditation status.

The inspection report is signed by the accreditation team and officially sent to the training institution by the regulatory board or council. Institutions are awarded full, partial, or no accreditation. Full accreditation means the institution has met 100% of the mandatory criteria and 75% and above of non-mandatory criteria. Partial accreditation means the institution has met the requirements of the mandatory criteria in full as well as between 50% and 75% of the non-mandatory criteria. No accreditation means the institution failed to meet 100% of the mandatory criteria and is therefore not fit to train health workers. Institutions that are partially accredited are given between six months to a year to meet the requirements before being fully accredited. The regulatory bodies only publish the list of training institutions that have been fully or partially accredited. Any student who trains in a non-accredited institution will not be registered to practice by the regulatory body after completion of training. All fully accredited institutions are awarded an accreditation certificate valid until the next accreditation cycle. Most institutions undergo accreditation after a full course cycle is completed, either after every three or five years depending on the course.

RESULTS

The FUNZOKenya project supported five regulatory bodies to develop training and accreditation standards: the Kenya Medical Practitioners and Dentists Board (KMPDB), Nursing Council of Kenya (NCK), Clinical Officers Council (COC), Kenya Nutritionist and Dietetics Institute (KNDI), and Public Health Officers and Technicians Council (PHOTC). From early 2015 to 2016, four of the regulatory bodies (KMPDB, NCK, PHOTC, and KNDI) conducted inspections in 183 institutions. Of the institutions inspected, 15% were fully accredited, 80% partially, and 5% were pending a decision on their accreditation status (Table 1).

In addition to the training and accreditation standards, FUNZOKenya supported six regulatory bodies to develop a total of 13 core curricula and nine log books (Table 2). These core curricula are competency-based and define the core competencies required of health care professions and include essential components such as HIV and AIDS; maternal, neonatal and child health (MNCH); and family planning (FP), including the management of communicable and non-communicable diseases. The log books serve as a guide for meeting set clinical objectives and prescribe the mandatory clinical placements, duration and competencies students will undertake in the course of training. The core curricula and log books have been used to

<table>
<thead>
<tr>
<th>Regulatory body</th>
<th>Total institutions inspected</th>
<th>Fully accredited</th>
<th>Partially accredited</th>
<th>Institutions pending determination of accreditation status</th>
</tr>
</thead>
<tbody>
<tr>
<td>KNDI</td>
<td>57</td>
<td>7</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>PHOTC</td>
<td>13</td>
<td>0</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>NCK</td>
<td>102</td>
<td>10</td>
<td>92</td>
<td>0</td>
</tr>
<tr>
<td>KMPDB</td>
<td>11</td>
<td>10</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>183</strong></td>
<td><strong>27 (15%)</strong></td>
<td><strong>146 (80%)</strong></td>
<td><strong>10 (5%)</strong></td>
</tr>
</tbody>
</table>
align curricula for the degree in medicine in seven institutions, diploma in nursing in five institutions, and bachelor in environmental health in three institutions.

**DISCUSSION**

All training institutions embraced the accreditation exercise as beneficial and a step in the right direction in improving training standards and ensuring health professionals have the competencies required for delivery of quality services. Institutions found the process of accreditation to be formal, structured, participatory, and objective as opposed to previous inspections that were subjective and ad hoc in nature. The self-assessment undertaken by the institutions assisted in identifying areas of improvement. The process of accreditation enabled resources to be allocated by institution management for improvements and to ensure compliance. It facilitated infrastructure development and strengthening of institutional systems, including prioritizing areas such as building and equipping of skills labs and recruitment of qualified teaching personnel and clinical instructors.

For an institution to be accredited they first have to pay a fee that covers operational and inspection costs. The amount charged for accreditation varies from one regulatory body to another. Any institution that has not fully met the required standards then has to allocate additional resources—e.g., to improve infrastructure and facilities, recruit personnel, or buy equipment and supplies. Some institutions reported that they had not budgeted for this within the current financial year and therefore had to review their budgets or look for alternative financing to ensure improvement of areas where gaps were identified.

While some institutions complained that the cost of accreditation is too high, they have begun putting in place adequate resources for future accreditation needs. Institutions have also started exploring innovative approaches to address and budget for the student/faculty ratio minimum requirement and equipment purchase and renovation of facilities, which were seen as challenges to recruitment of full- and part-time personnel.

Some regulatory bodies faced challenges in constituting a dedicated team of inspectors/accreditors and funding these visits. This delayed visits to institutions and extended the time for revisits to partially accredited institutions. Some regulatory bodies such as the Nursing Council of Kenya realized the need to revise their accreditation checklists to accommodate realities on the ground. NCK developed two checklists; one to be administered to new training institutions and the other to assess institutions that have been in existence for a long time.

Some of the notable training gaps reported during accreditation visits included lack of adequate and qualified teaching personnel and clinical instructors/preceptors; inadequate facilities required for training and to accommodate the number of students admitted for the course, poorly equipped libraries; and sharing of teaching hospitals by more than one institution leading to congestion that limits skills acquisition.

Overall, the development and implementation of training and accreditation standards has contributed to harmonization of health worker training across institutions. Training institutions have aligned their curriculum to the prescribed core curriculum by the respective regulatory body, adhering to the standards required to increase

### Table 2: Core curricula and log books developed

<table>
<thead>
<tr>
<th>Regulatory body</th>
<th>Core curricula</th>
<th>Log books</th>
<th>Core curriculum details</th>
</tr>
</thead>
<tbody>
<tr>
<td>COC</td>
<td>3</td>
<td>3</td>
<td>• BSc. in Clinical Medicine and Community Health and log book</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Higher Diploma in Clinical Medicine &amp; Surgery Reproductive Health &amp; log book</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Diploma in Clinical Medicine and Surgery and log book</td>
</tr>
<tr>
<td>KMLTTB</td>
<td>1</td>
<td>1</td>
<td>• Diploma in Medical Laboratory Sciences and log book</td>
</tr>
<tr>
<td>PPB</td>
<td>2</td>
<td>0</td>
<td>• Bachelor of Pharmacy Degree Programme</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Harmonized National Curriculum for Diploma in Pharmaceutical Technology</td>
</tr>
<tr>
<td>MPDB</td>
<td>2</td>
<td>0</td>
<td>• Bachelor of Medicine and Bachelor of Surgery</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Bachelor of Dental Surgery</td>
</tr>
<tr>
<td>NCK</td>
<td>2</td>
<td>2</td>
<td>• Kenya Registered Nursing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Kenya Registered Nursing and Midwifery</td>
</tr>
<tr>
<td>PHOTC</td>
<td>3</td>
<td>3</td>
<td>• Certificate in Environmental Health</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Diploma in Environmental Health</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Bachelor of Science in Environmental Health</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>
production of qualified and competent health professionals who can deliver quality services leading to improved outcomes.

**RECOMMENDATIONS**

- Regulatory bodies should periodically review their training and accreditation standards and core curriculum, preferably after completion of a course cycle. The review should be informed by new research, emerging trends and technologies, faculty and student course evaluations, service delivery practice standards and experiences, disease burden, and population needs and priorities.
- Regulatory bodies need to disseminate core curricula and training standards to training institutions and plan for consistent and periodic inspection visits after the end of a training course cycle, including maintaining accreditation calendars to monitor compliance.
- Training institutions should allocate resources to meet and maintain standards of training, conduct periodic self-assessments to identify weaknesses, and put in place mechanisms to improve training.
- The regulatory bodies and CUE and TVET should collaborate where possible and conduct joint accreditation to reduce cost, time, and effort. This builds consensus and demystifies the accreditation exercise.

**REFERENCES**


