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Development of a Capability Maturity Model for the Establishment of Children's Nursing Training Programmes in Southern and Eastern Africa

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Abstract

Background: Developing high-quality and sustainable training programmes to meet the increasing demand for specialist children's nurses in African countries requires collaborative efforts by multiple stakeholders, systems and organisational tiers. This is made more challenging in the absence of a comprehensive framework for specialist nursing educational programme development. This project set out to develop a Capability Maturity Model in order to systematically describe the essential capacity required to establish a new specialist children's nursing education programme in an African context.

Methods: Previous Capability Maturity Models developed in the fields of nursing regulation and human resources for health information systems were used to guide the process of development. A six-stage process was followed to: identify necessary supportive conditions; specify levels of process maturity; develop domains; characterise levels of capability; consult with stakeholders; and finalise the model.

Results: The process resulted in the identification of set of five step-wise progressions for each of five stakeholder activity domains, and the creation of a comprehensive Capability Maturity Model describing five levels of process maturity in relation to education, clinical and regulatory systems, human resources for health systems, and requirements related to overall stakeholder collaboration. Stakeholder consultation confirmed the accuracy and applicability of the model.

Conclusions: The model successfully makes visible the wide range of regulatory and associated processes involved in developing a new educational programme for specialist nurses, including educational standards, quality assurance, scopes of practice, and systems for licensing and registering specialist children's nurses. Stakeholders will be able to sue the model as a map to identify where they are in the process, and establish the resources and actions needed to make further progress.

Background

Appropriate education programmes are necessary to ensure an adequate supply of specialist nurses to meet the urgent demand across health systems worldwide.[1] Specialist nurses are equipped with educational preparation and extensive clinical experience in a specialty beyond that of a generalist nurse, enabling them to perform identified activities in line with their personal level of proficiency and scope of practice.[2]

A growing number of African countries are prioritising the development of the specialist children's nursing workforce, recognising the potential for skilled children's nurses to contribute to improved health outcomes for children.[3] There are concerns about the sustainability of some health workforce development and training initiatives in low- and middle-income countries.[4] It is increasingly recognised that building sustainable capacity in specialist nursing education requires the development of supportive conditions created through policies, frameworks and strategies, requiring collaborative efforts by multiple stakeholders.[2] Regulatory systems and processes are central to this endeavour, but regulators and other

stakeholders must work together to achieve the shared objective of high-quality sustainable training provision aligned to the needs, priorities, resources, legislative and regulatory frameworks of a specific health system. This requires a high degree of integration and stakeholder collaboration[5] which may be difficult to achieve when stakeholders have an incomplete view of the wider system or are unfamiliar with the operational considerations of other sectors and institutions.

The necessary supportive conditions for this endeavour can be described comprehensively and systematically in the form of a Capability Maturity Model. A Capability Maturity Model depicts the organisational processes, practices and behaviours (the supportive conditions) that reliably and sustainably produce required outcomes.[6] These supportive conditions are commonly represented as a three- to six-stage stepwise progression spanning the earliest stages of a process through to achieving the desired level of development or maturity.[7] The intention is that by identifying critical success factors and enabling objective measurement, institutions will be able to assess their capacity, processes, and structures and engage in a process of continuous improvement.[8]

The USAID-funded Measure Evaluation project has described six instances of applying the capability maturity model approach to strengthen health data systems.[9] A staged capability maturity model approach has also been used successfully to support and measure progress towards health profession regulation strengthening in Africa through the development of a Regulatory Function Framework used to evaluate progress in key regulatory functions.[10, 11]

Since 2008 The Harry Crossley Children's Nursing Development Unit (CNDU) at the University of Cape Town has assisted colleagues at seven schools of nursing in six African countries (Botswana, Kenya, Malawi, Namibia, Zambia and Zimbabwe) to establish nine new children's nursing training programmes.[12] In addition CNDU has established two entirely new children's nursing educational programmes and re-established a third programme in South Africa. These experiences have generated rich process learning which to date has not been formally recorded. In 2020 CNDU was asked by the Vitol Foundation to capture this learning in the form of a Capability Maturity Model, which we believe represents the first instance of applying this approach to the development of specialist nursing education programmes. In taking forwards this work, we explicitly adopted an assets-based approach which makes visible and values the skills, knowledge, potential and resources in a system and among stakeholder groups,[13] consistent with principles of Afrocentric educational practice and research design.

Methods

Aim and objectives

In undertaking this project, our aim was to utilise learning gained through experience to develop a capability maturity model which describes the essential capacity required to establish a new children's nursing education programme.

Objectives were to:

- Identify the full range of supportive conditions that must be in place to enable the development of new children's nursing education programmes;
- Describe the key functions and responsibilities of the major stakeholder groups who need to contribute to the development of new children's nursing education programmes; and
- Access collective expertise by consulting with the community of children's nursing education practitioners in southern and eastern Africa.

Our intention was that the resulting capability maturity model could enable stakeholders to assess their current level of capability maturity in relation to each domain, stimulating reflection and process improvements, ultimately supporting the development of high-quality sustainable training provision for children's nursing, primarily in Africa.

Development Process

We followed methods described by McCarthy et al.[10] and Measure Evaluation Systems[9]. The process of developing the capability maturity model involved six main phases of activity, as follows:

i. Identification of relevant processes, practices and behaviours;
ii. Specification of the levels of process maturity;
iii. Development of domains with definitions;
iv. Characterisation of different levels of capability;
v. Consultation with stakeholders; and
vi. Incorporation of consultation responses and finalisation of the model

The authors are two nursing academics who worked together to complete all stages of the process. A monitoring and evaluation specialist external to the programme provided additional facilitation of the process. The process was completed between July and October 2020. A record was maintained of the process followed, together with reflections on the process. The stages of development are reported below in such a way that others could reproduce the process.

i) Identification of relevant processes, practices and behaviours

In order to identify the organisational processes, practices and behaviours (the supportive conditions) that contribute to the establishment of a new children's nursing education programme, we began with a review of published records and accounts of relevant new training programme development (e.g. Coetzee et al.[14]) and unpublished programme documentation including travel and seminar reports, annual reports and conference presentations. This was intended to ensure that the model would be grounded in the collective experience and knowledge of establishing new children's nursing educational programmes within the southern and eastern African region.

ii) Specification of the levels of process maturity

The processes, practices and behaviours identified through review of programme documentation were used to develop macro-descriptions for five levels of process maturity (see Table 1), guided by completion of the statement: 'A successful sustainable children's nursing education programme has/is...?'. We found it helpful to begin at the end by describing full maturity, before working backwards.

The macro-descriptions of the levels were intended to describe all relevant aspects of the process at high level. The intention was that the macro-descriptors should contain sufficient information about the 'whole picture' so that the essential elements would be visible to any stakeholder as part of an integrated process. Information contained in the macro-descriptors related to conditions that enable necessary actions/progress, guided by the prompt: 'What needs to be in place to enable all actors to do their work?'.

iii) Development of domains with definitions

The review of programme documentation described above included a framework to guide stakeholder collaboration which was developed at a colloquium of South African stakeholders in children's nursing education (2012) and has been routinely used by CNDU as part of new educational programme development activities with teams in other African countries subsequently.[15] This framework was used to structure the domains of the Capability Maturity Model (see Table 1) in order to meet the need to describe processes, practices and behaviours at both individual and organisational tiers, as noted above.

We identified definitions for each domain from the literature and recorded these to reduce ambiguity and enable consistent application. As we identified definitions, we found this assisted us in clarifying the steps in a process from nascent to established. For example, applying the definition developed by Deverka et al.[16] helped us identify a progessive description of stakeholder collaboration as detailed in Table 1.

Table 1: Domains and definitions

Domain	Domain definition
Education system capacity	The perceived abilities, skills, and expertise of leaders, teachers, faculties, and staff in education institutions to execute or accomplish something specific, such as leading a school-improvement effort or teaching more effectively.[17]
Clinical system capacity	A capacitated clinical system able to support the establishment of new training programmes has adequate appropriately trained and motivated health workers, a well-maintained infrastructure, and a reliable supply of medicines and technologies, backed by adequate funding, strong health plans and evidence-based policies.[18]
Human resources for health information and planning capacity (HRH)	The concept of Human Resources for Health comprises planned endeavours intended to increase the capacity of the health workforce in order to optimise health system functioning and ultimately enhance health. The health workforce is defined by the WHO as "all people engaged in actions whose primary intent is to enhance health".[19] Hunter, Dal Poz and Kunjumen describe the health workforce as a key building block of health systems,[20] with health workforce strengthening identified as a priority for action for strengthening those systems in global policy directions.[5]
Regulatory system capacity	The action or process of officially recognizing an individual practitioner or an institution as having a particular status or being qualified to perform a particular activity. Nursing and midwifery legislation and regulations provide for i) the children's specialist nursing role ii) category of professional registration for children's nurses iii) defined Scope of practice, iv) licensing process v) accredited children's nursing training provision including curricula and institutions.[10]
Stakeholder collaboration	Deverka et al.[16] define stakeholders as individuals, organizations or communities that have a direct interest in the process and outcomes of a project, research or policy endeavor. Bi-directionality is an important component of mature stakeholder collaboration. Five levels of stakeholder engagement are defined: minimal awareness and interaction; consultation; engagement; participation; and bi-directional collaboration among stakeholders enabling opportunities for reciprocal learning and shared decision-making. The ultimate goal of the process is partnership between stakeholders.[16]

In addition to the four single-stakeholder domains of the education system, clinical system, human resources for health (HRH), and regulatory system, we defined a fifth multi-stakeholder domain which we called stakeholder collaboration.

vi) Characterisation of different levels of capability

The processes, practices and behaviours identified through review of programme documentation and other literature were allocated to the relevant stakeholder domains. Steps within the domains of human resources and the regulatory system were both readily summarised since we were working from the existing Capability Maturity Models for health information systems[8] and regulatory system capacity[10].

Similarly, classification of levels of stakeholder engagement were developed with reference to Deverka et al.[16]

For each aspect of capability, a statement describing full capability maturity was developed first and recorded under Level 5, followed by statements describing capability at the other levels. After developing the initial statements under each level, the horizontal and vertical alignment of the statements was reviewed to achieve consistency with regard to chronology and sequencing of interdependent events and conditions.

v) Consultation with stakeholders

The resulting draft model was presented to leading practitioners from each stakeholder domain for comment and input before finalisation. Consultation was via three routes. Firstly, the draft model was presented to 30 participants representing 11 schools of nursing across nine African countries at the Children's Nurse Educator Forum in September 2020 via an online video presentation and brief facilitated discussion. Secondly, forum participants as well as additional consultees from each stakeholder domain were provided with a copy of the draft model and invited by email to contribute to the consultation through a structured questionnaire using Google Forms. Thirdly, two online video call sessions were held which were open to any consultees who preferred to offer their feedback through dialogue with the researcher. These sessions were structured to explore the same questions as the online questionnaire.

Consultees were asked to state, based on their own experience, the three most important conditions that need to be in place to establish a new children's nursing training programme. They were then guided to assess the extent to which these conditions were included in the draft model. Consultees were asked to comment on how closely the organisational processes, practices and behaviours described matched the consultee's own health system. Finally, consultees were asked to provide suggestions for improving the relevance, applicability or understandability of the information presented.

Results

The process described above resulted in a set of five step-wise progressions for each of the five domains (see Figure 1) and the creation of the Capability Maturity Model presented in Figure 2. Key outcomes and results of the process of development are reported below.

The review of programme documentation and reflection on experiential knowledge determined that this capability maturity model would need to describe multidimensional processes, practices and behaviours at both individual and organisational tiers. Five levels of process maturity were identified, and these were described in the form of macro-descriptions as shown in Figure 1.

The Capability Maturity Model presented in Figure 2 describes the five different levels of capability for each of the domains and stakeholder functions. There was some debate around the extent to which statements should represent the ideal vs the likely reality. For example, the statement 'A new in-country

training programme fully aligned with local needs and resources is accredited' was originally included under the macro-descriptor for Level 3. This was changed to 'A new in-country training programme … with explicit reference to local population needs and resources'. This change was decided on to signal a difference from the fully mature capability described at Level 5, recognizing that after initial work to develop a programme informed by local needs and resources, collaborative review and refinement would be required to achieve full alignment.

Some of the processes represented were found to be iterative. For example, developing the capacity to refine the curriculum to be contextually specific, or the development of educator skills to deliver active learning, both occur iteratively over the course of Levels 3, 4 and 5. There was only one domain (education systems) for which sub-domains were required. The additional level of detail for this domain is consistent with the core focus of this Capability Maturity Model, which concerns the capacity to establish a new training programme, rather than wider system capacity.

Stakeholder consultation successfully engaged 36 individuals in the process of development (30 individuals through the Children's Nursing Educator Forum meeting, and a further 6 individuals subsequently). Seventeen individuals provided detailed comments and suggestions, with eight of these completing the online questionnaire and nine participating in the video calls. Individuals who provided detailed comments and suggestions were from Namibia, Rwanda, South Africa, Zambia and Zimbabwe, working within the stakeholder domains of education, clinical or regulatory systems, and human resources for health. There were no inconsistencies in the responses received, and all suggestions were incorporated into a revised version of the Capability Maturity Model, including revisions to the macro-descriptors. Substantive revisions made as a result of feedback received included strengthening the importance given to securing a mandate from the ministry of education, and providing a clearer description of the resourcing required to start up a new programme. All consultees confirmed that the draft Capability Maturity Model was a helpful way of describing the process of establishing new children's nursing training programmes, and that the organisational processes, practices and behaviours described matched their own health system sufficiently closely for the model to be easily applicable.

Discussion

The Capability Maturity Model that was developed defines five domains that are critical to establishing nursing education programmes, and describes a navigable pathway from first steps to sustainable programme maturity. The model makes visible the very wide range of regulatory and associated processes involved in establishing a new training programme, including educational standards, quality assurance, scopes of practice, and systems for licensing and registering specialist children's nurses. In doing this, the model achieves one of the chief benefits of the CMM approach, by making the responsibilities of stakeholders explicit and providing a supportive framework for collaboration.[8] Stakeholders are therefore able to use the model as a roadmap, to identify where they are and what actions and resources are needed to reach their shared destination.

In highlighting the resources needed to make progress and build the desired system capacity we have tried to adhere to the values and principles of an asset-based approach[13] striking a balance between steps that will meet urgent needs in the short-term and steps that will nurture the strengths and resources of individuals and organisations connected to children's nursing over the longer term. We have also intentionally included objectively identifiable actions, behaviours and processes designed to facilitate the 'everyday doing' of education[22] in ways that facilitate the development of occupational consciousness as a deliberate strategy in educational practice development uniquely suited to post-colonial and post-apartheid African societies.

The process that was followed and the Capability Maturity Model that resulted have both strengths and limitations. The model benefits from the application of considerable experiential knowledge from multiple individuals representing a comprehensive set of stakeholder groups, combined with information gained from published research and other documentation. We anticipate that this will have supported accuracy. The model does not describe all of the functions of the many organisations and stakeholders represented, and instead focuses on a limited set of functions critical to the establishment of new children's nursing training programmes. HRH capacity and regulatory capacity are comprehensively addressed by existing CMMs.[10, 8] Although consultation sought to maximise relevance and suitability for application, the model has not yet been implemented. The model is specific to children's nursing training in southern and eastern Africa. We expect that it could be applied to other nursing and potentially other health professionals specialisms and other geographies with necessary adaptation to local contexts, which stakeholders could carry out following the process we have described.

We intend to work with members of the Children's Nursing Educators Forum and wider stakeholders in southern and eastern Africa to implement the model in at least three countries during 2021-2022. This process will be evaluated and any refinements made, with an up-to-date version of the model and guidance on implementation maintained online through the Open Science Framework at https://osf.io/tegx7/

Stakeholders wishing to apply the model to assess their state of Capability Maturity should note the intended application, which is that all conditions described in a step need to be met in full before that step can be considered completed.

Conclusions

The steps involved in establishing new children's nursing training programmes must be considered as part of a comprehensive set of processes, practices and behaviours encompassing specialist nursing regulation and nursing education as well as wider human resources for health functions. These systems need to operate hand-in-hand as part of an integrated and strategic response to specialist nursing workforce development.

List Of Abbreviations

CNDU Children’s Nursing Development Unit

Declarations

Ethics approval and consent to participate This project did not involve human subjects or interventions. Ethical approval was not required.

Consent for publication Not applicable

Availability of data and materials All relevant data and materials are presented in the manuscript. an up-to-date version of the model and guidance on implementation maintained online at

https://osf.io/tegx7/

Competing interests The authors declare no competing interests.

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Authors' contributions MC and NN conceptualised and developed the model. NN produced the first draft of the manuscript and MC revised it for publication.

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Figures

Level	Description
Level 1: Nascent	*General nurse and midwifery training is securely established, but children's nursing training programmes and trained children's nurses are absent.* *Actions towards establishing training programmes may be happening by chance, or represent isolated, ad hoc, or individual heroic efforts.* *Initial advocacy and proposals might be in process.*
Level 2: Emerging	*The systems, processes and resources for establishing training programmes are defined and increasingly functional.* *A new in-country training programme aligned with local needs and resources is accredited through institutional and national regulatory routes.* *Development of core specialist clinical and educator workforce required to deliver the new programme through staged release.* *Stakeholders begin to exchange available workforce and training data, and identify additional data needs.*
Level 3: Established	*The systems, processes and resources for establishing training programmes are beginning to be defined, but some important components may be incomplete.* *There is an in-principle agreement by the Ministry of Health that there is a need for a training programme.*
Level 4: Institutionalised	*Well-established framework for implementation as part of strongly aligned national and regional strategies, policies, processes and resourcing for child health and workforce development.* *Training activity is directed by a shared strategy which is informed by accurate data about the children's nursing workforce, clinical service needs, and training activity.*
Level 5: Optimised	*The systems, processes and resources for establishing education programmes are regularly reviewed and opportunities for learning and improvement are taken.* *Stakeholder collaboration is mature, with well-established interpersonal and inter-organisational relationships.* *Education institutions and clinical services can deliver and absorb trainees, with routine recording of specialist qualifications and clear employment pathways.* *The contribution of children's specialist nurses to the health system is visible.*

Figure 1

Step-wise domain progression from nascent to established

Domain	Sub-Domain	Level 1: Nascent	Level 2: Emerging	Level 3: Established	Level 4: Institutionalised	Level 5: Optimised
1. Education system	Capacity for programme design and delivery	Programme development is at the initial proposal stage, driven by demand from isolated stakeholders. Initial steps towards programme development may be disconnected from policy, and stakeholder consultation is limited. The School of Nursing or training institution may lack essential institutional infrastructure to support new programme design and delivery.	A collaborative needs assessment is conducted and a curriculum outline is developed with child health stakeholders. Consideration is given to aligning the new higher educational qualification for specialist children's nurses with the national qualifications framework. Transitional programmes and bridging courses may be defined to fill educational gaps and enable progress to this standard.	A new in-country training programme and curriculum is formalised and accredited. The educational and practical preparation for undertaking studies leading to qualification as a specialist children's nurse is clearly specified. The level of the new higher educational qualification is clearly defined and aligned with the national qualifications framework. Institutional infrastructure to enable programme delivery and student participation is in place.	Regular student intakes and steady throughput of trainees responsive to workforce plans. Teaching and learning has been transformed through deliberate incorporation of locally-relevant research, knowledge and professional practices. Governance arrangements to ensure educational quality are securely established. Well-established institutional processes regarding timetables, schedules, clinical rotations.	Reflection and review enables continuous improvement, informed by consultation with clinical stakeholders and MOH to reassess priorities for curriculum content based on desired scope of practice and service needs.

Domain	Sub-Domain	Level 1: Nascent	Level 2: Emerging	Level 3: Established	Level 4: Institutionalised	Level 5: Optimised
	Academic and clinical educator workforce capacity	There are no specialist children's nursing educators in post, or there are no posts, and/or few or no suitably qualified or experienced nurses available to recruit.	Start funded preparation of appropriately qualified children's nurses to become educators, aligned with national regulatory requirements, planning for a sustainably expanded educator workforce. Urgent training needs may be addressed through interim training courses, sending nurses to train in other countries and/or utilising visiting faculty.	One educator with appropriate qualification and suitable clinical expertise. Other educators undertaking studies leading the award of required qualifications. Development of new academic and clinical educators assisted through mentoring and internships with regional peers).	Two or more educators with appropriate qualification and suitable clinical expertise for whom the programme is their main affiliation, supported by clinical educators. Educators are increasingly skilled in active learning techniques and competency- and skills-based teaching and learning.	Programme staff increasingly contribute as external advisers, reviewers and moderators for other institutions. Educator teams are part of self-sustaining regional networks and a community of practice, for example sharing learning and benchmarking. Programme graduates are contributing to teaching and learning in the classroom and as clinical educators.

Domain	Level 1: Nascent	Level 2: Emerging	Level 3: Established	Level 4: Institutionalised	Level 5: Optimised
2. Clinical system capacity training and utilising specialist children's nurses	There are very few or no children's nurses practising in clinical service delivery. Commissioning of new services is often initiated by passionate clinician leaders or funder-driven, creating an urgent demand for specialist nurses, but disconnected from existing nursing workforce capacity or nursing training plans. Little evidence of a functioning multidisciplinary team working approach between medical doctors, nursing teams and allied health workers in clinical service delivery.	Plans to develop and resource paediatric services are formulated. Clinical service leads participate in conducting an assessment to calculate trainee release over a five-year period without excessively depleting local clinical services, prioritising future educators and clinical learning facilitators. Processes to accredit clinical learning placements initiated.	Increasingly clearly articulated roles and expectations of specialist nursing contribution required to optimise care delivery in existing and planned services. Clear scheduled plans for releasing nurses for training and absorbing graduates into specialist roles on return. The increasing presence of specialist children's nurses and students in clinical services contributes to a clearer sense of the potential of their nursing contribution.	Clinical nurse leaders are increasingly involved in multi-stakeholder decisions about releasing staff for training and optimization of the nursing workforce. Graduates are intentionally deployed as specialist clinician nurses practising as clinical educators and practice leaders.	The growing children's nursing workforce and placements of students on the clinical platform makes it possible for nurses to achieve measurable contributions to improved care delivery through service innovations designed around the application of evidence based healthcare. A high level of continued engagement in clinical service strengthening from graduates who actively contribute in leadership roles. Multidisciplinary team working between medical doctors, nursing teams and allied health workers is securely established.

Domain	Level 1: Nascent	Level 2: Emerging	Level 3: Established	Level 4: Institutionalised	Level 5: Optimised
3. Human resources for health information and planning capacity (HRH)	Plans for nursing workforce development may deal with specialist children's nursing workforce only superficially, without clear vision for the role and contribution. Little data available about the existing children's nursing workforce capacity. Little or no dedicated resourcing or funding for children's nursing workforce and education capacity developing.	Considering and confirming initial arrangements for staged release of nurses to undertake specialist training, and establishment of funded educator posts. Gathering data to inform more a more deliberate strategy for workforce development. Moving towards a combined strategy by MoH, clinical services and education to identify initial cohort of trainees to undergo training to seed selected units and facilities with specialist clinical staff. Sourcing and allocation of funding for student places, especially upskilling lecturers who might have to go out of country.	Strategic plans for training and workforce development are in place. Children's nursing training plans are aligned with current policy, MoH programmes and local health service needs. Monitoring of progress is possible through systematic data collection.	Systems for releasing nurses for training, funding streams, and absorption of graduates back into the workforce are well-established. Monitoring of progress towards agreed targets is informed by routinely collected data about the workforce and training activity.	Active facilitation of extensive dialogue and information exchange between all stakeholders. The expected contribution of the specialist children's nurse is clearly articulated in HRH policies, based on shared stakeholder visions. At least 85% of programme graduates are employed in specialist children's nursing roles with appropriate remuneration on graduation.

Domain	Level 1: Nascent	Level 2: Emerging	Level 3: Established	Level 4: Institutionalised	Level 5: Optimised
4. Regulatory system capacity	Regulations for accreditation of new training programmes are not in place or not uniformly applied throughout the country.	Regulations exist in basic forms across the country or new regulations are being piloted in certain settings. Registration systems can record relevant additional qualifications (possibly in interim form) and answer basic queries (e.g. number of children's nurses on the register, but not in active practice). Required qualifications and competencies for specialist educators are specified.	Regulatory mechanisms for implementation are comprehensive, including specified broad curriculum outcomes, a professional standard, title protection, a defined scope of practice and/or a job description (ICN p23). Mechanisms and requirements for registration of qualification and periodic renewal of credentials are clear and transparent.	Regulations are comprehensive and responsive to population health needs and stakeholder priorities. Compliance with them is high.	All regulations reflect best practices and align with regional standards or global guidelines. Registration data used by decision makers for workforce policy and planning.

Domain	Level 1: Nascent	Level 2: Emerging	Level 3: Established	Level 4: Institutionalised	Level 5: Optimised
5. Stakeholder collaboration	Sporadic or no interaction between stakeholders. Incomplete knowledge and understanding of stakeholder functions. Extent of political support for new programme is unclear.	Stakeholders start meeting and gaining awareness of each other's responsibilities/ agendas/ priorities. Use of an asset-based approach to identify local resources (people, organisations, expertise, funding) required to initiate the programme. Multi stakeholder meeting to clarify initial training objectives in the context of current policy, MoH programmes and local health service needs. Clear political mandate to proceed with new training programme.	Formalisation of relationships between stakeholders e.g. through MOAs and/or stakeholder fora	Opportunities for input into individual stakeholders' processes/products are by structured invitation.	Stakeholder engagement is mature, working to clarify alignment of specialist children's nurse training with current policy, MoH programmes and local health service needs. Bi-directional collaboration among stakeholders enables opportunities for reciprocal learning, shared decision making, and the generation of shared outputs.

Figure 2

A Capability Maturity Model for the Establishment of Children's Nursing Training Programmes