

## Specialty Training Curriculum Dutch Physician Global Health and Tropical Medicine (GH&TM)

This document is a translated summary of the Dutch 2020 revised version of the specialty training curriculum for Physicians Global Health and Tropical Medicine. It has been produced for a global audience and more specifically for the consultants that supervise residents during their Global Health Residency. This is the final part of the specialty training programme GH&TM.

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## Chapter 1: Purpose and use of the Curriculum

The Physician Global Health and Tropical Medicine (GH&TM) training curriculum is accredited by the Royal Dutch Medical Association (KNMG). The curricular outcomes are based on skills and knowledge described in 'Entrustable Professional Activities' (EPA's) (See Appendix 1 and 2). After completing the specialty training programme, the resident is able to perform the EPA's without supervision.

The curriculum is the foundation for the local specialty training programmes in the different teaching hospitals. The resident steers his or her learning by drawing up an Individual Development Plan (IDP). This IDP should take the local specialty training programme and the local possibilities into account.

The EPA's are based on the 7 CanMEDS competencies.



## Chapter 2: Profile of the Physician GH&TM

The Physician GH&TM is a general physician with all-round knowledge of specific diseases, disease patterns, health and health systems that occur in the modern and globalised society. The knowledge of Global Health is applied by the Physician GH&TM inside and outside of the Netherlands. The Physician GH&TM works within curative care, public health, advocacy and medical leadership. His or her specific field of medicine is at the crossroads of curative and preventive care and applies to the individual patient as well as to the community in which the patient interacts. Special attention needs to be paid to vulnerable groups within the population: groups of people with specific characteristics that expose them to poor health conditions. Therefore, the Physician GH&TM should have specific knowledge of poverty related diseases and socio-economic related health inequity. Communication skills related to healthcare are gender sensitive, intercultural and age specific, with respect for diversity in cultural and social norms and values, rights and ways of interacting. The Physician GH&TM is characterised by his or her

continuous discipline to strive for optimisation of knowledge and practice. He or she recognises and critically evaluates scientific aspects of the professional discipline and, when necessary, formulates research questions for applied research. The Physician GH&TM advocates for integrated healthcare management. They are an expert in daily management of a healthcare clinic and are competent in making decisions concerning tasks, management, human and material resources, to facilitate preventive and curative care. As a professional, the Physician GH&TM strives for the highest attainable standard of care and ethical behaviour. He or she is competent, in theory and practice, and acts effectively in resource scarce circumstances, in favour of population health on a macro, meso- and micro level.

### Chapter 3: Core of the curriculum

The curriculum for the Physician GH&TM encompasses 8 themes. These cover 18 Entrustable Professional Activities (EPA's), skills which the resident will further develop during all four components of the specialty training programme. The EPA's are outlined in Table 3.

*Table 3: Area of competence, themes and EPA's*

Area of competence	Themes	EPA
Patient care	A. Generalist in patient care	1. Provides basic surgical care.
		2. Provides basic paediatric care .
		3. Provides basic gynaecological and obstetric care.
		4. Provides basic care to patients with infectious diseases and NCDs.
	B. Emergency Treatment	5. Applies Triage system and provides care to acutely ill patients .
		6. Provides appropriate Trauma aftercare.
		7. Applies Triage and provides care to acutely ill children.
		8. Provides Neonatal care.
	C. Healthcare to the chronically ill	9. Provides care to chronically ill patients.
	D. Essential	10. Performs basic surgeries

	surgical skills	11. Performs gynaecological and obstetric surgeries.
	E. Antenatal, natal and postnatal care	12. Provides comprehensive antenatal care to women with uncomplicated and complicated pregnancy.
		13. Management of labour for complicated and uncomplicated pregnancies.
		14. Provides perineal care in low resource settings.
Public Health	F. Epidemiology incl. Burden of Disease	15. Applies knowledge on local epidemiology and Burden of Disease.
	G. Public health in a Global Health context	16. Provides preventive care in the Global Health context.
Medical leadership	H. Healthcare management	17. Performs daily management in a health facility.
		18. Contributes to the medium-long term development and sustainability of comprehensive local healthcare.

	EPA mainly conferred in Surgery component
	EPA mainly conferred in Gynaecology/obstetrics component
	EPA mainly conferred in Paediatrics component
	EPA mainly conferred in Global Health Residency

## Chapter 4: Structure of the training

The training of the residents GH&TM focuses on lifelong learning. This is achieved by facilitating the learning process at the workplace, especially by giving the initiative and responsibility of the learning process to the resident. This self-direction is conducted through consultation with the trainer and is documented in the resident's portfolio. The role of the trainer is to coach the learning process.

The training is based on the following core characteristics:

- The learning is active: the resident identifies a problem, formulates learning goals for his/her learning in practice, prepares educational activities and participates in peer-to-peer coaching.
- Learning means developing and is process-based.

- The resident is responsible for his/her learning process.
- The trainer is jointly responsible for the learning process of the resident.
- The head of the institute has the final responsibility for the entire process.
- The learning process is a combination of theory and practice.

The character of the training is partly practical and consists of clinical work. The resident learns and develops by participating in the daily clinical routine and is coached in this process by the trainer. To facilitate this process several instruments are used. Based on periodic reviews of performance the resident actively selects and performs the learning activities and assessment instruments in order to reach the identified learning goals. Structured and constructive feedback from the trainer is essential in this learning process. Both the trainer and resident are free to apply instruments other than those described in this training plan, in order to evaluate activities.

The specialty training programme consists of the four components described in Table 4.1

Table 4.1 Training components

Component	General Surgery or Paediatrics	Gynaecology/Obstetrics	Netherlands Course on Global Health and Tropical Medicine	Global Health Residency	Total duration
Theoretical training	5 course days	5 course days	70 course days		
Clinical training (including theoretical training)	12 months	12 months		6 months	33 months

For the training components in hospitals in the Netherlands the following options exist:

- General surgery followed by gynaecology/obstetrics.
- Paediatrics followed by gynaecology/obstetrics.

In Table 4.2 the theoretical parts of the components are described.

Table 4.2 Theoretical training

Theoretical training	Themes (Table 3) and Content
Course days during clinical training	<ul style="list-style-type: none"> <li>• Focus on theme A.</li> <li>• Specific information related to international aspects of clinical care and intercultural aspects of clinical practice.</li> </ul>

Netherlands Course on Global Health and Tropical Medicine	<ul style="list-style-type: none"> <li>● Focus on themes A, C, E, F, G and H.</li> <li>● The course focuses on curative and preventive care, management and policy in healthcare and research in health, disease and healthcare. Specific contextualisation of the themes in relation to working in an international context.</li> </ul>
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In the following Table (Table 4.3) the Global Health Residency is described.

Table 4.3 The Global Health Residency

Component	Goals and Themes (see Table 3)
Global Health Residency	<ul style="list-style-type: none"> <li>● Development of competences in all themes, based on the Individual Development Plan of the resident, aimed at the granting of EPA's.</li> <li>● Earlier granted EPA's are contextualised and if applicable improved.</li> <li>● Development of experience in contributing to the effectiveness of local healthcare.</li> </ul>

## Chapter 5: Training, testing and evaluation

During the training formative and summative evaluation instruments are utilised (See Evaluation Scheme Appendix 3). The purpose of the formative instruments is to give feedback on the development of the resident. Based on the feedback, the learning goals of the individual development plan of the resident can be formulated and evaluated. The summative instruments are applied to define the level of competencies that the resident has achieved, based on the formative evaluations. The combined formative and summative evaluations lead to the granting of EPA's. The EPA's guarantee the required level of competencies of the resident or physician GH&TM to external interested parties.

In Table 5.1 the EPA proficiency levels are described and in Appendix 4 the expected EPA levels of the Physician GH&TM are outlined.

Table 5.1 EPA proficiency levels

Level	Description
1	Has knowledge of
2	Acts adequately under full supervision
3	Acts adequately under limited supervision (supervision is available at request)
4	Acts independently
5	Acts as a supervisor and instructor

In Table 5.2 the Formative evaluation instruments are described.

Table 5.2 Formative evaluation instruments

Formative instruments	Description
Clinical Evaluation Exercise (CEX)	Tool to evaluate daily clinical practice of the resident through direct observation. The initiative to apply a CEX can be with the resident, supervisor or other medical staff members. CEX evaluation by different staff members increases validity of the results. Competence levels are: 1: Poor 2: Fair 3: Average 4: Good 5: Excellent
Objective Structured Assessment of Technical Skills (OSATS)	This instrument is applied directly after an intervention or procedure, in order to evaluate the resident on important aspects of the intervention.
360 Degree feedback	Colleagues (For example nurses, MDs, patients) at the hospital are asked to evaluate the resident by using a fixed form. Specifically, the competences professional behaviour and collaboration can be evaluated with this instrument.
Critical Appraisal of Topic (CAT)	A CAT is a critical appraisal of a scientific article, related to a relevant clinical or other scenario related to international healthcare. This appraisal consists of a standardised answer based on a literature review. This instrument evaluates the competence of knowledge and science.
Open-book-exam	Knowledge, integration and application of knowledge.
Pre- and post-test	Knowledge, integration and application of knowledge.
Self-reflection report	Before the Global Health Residency the resident writes a self-reflective analysis concerning the competence levels of earlier training components. This report forms the basis for the Individual Development Plan for the training abroad.

During the training component, the trainer and resident periodically have meetings to review the performance of the resident. In these meetings the trainer has a coaching role, and the format of the review is based on reflections. The review is based on the portfolio and the Individual Development Plan of the resident.

In the following table (Table 5.3) the summative instruments are described.

Table 5.3 Summative instruments

Summative instruments	Description
Assignment/Public Health Exercise	Academical skills and evidence-based medicine. Focus on EPA's 15, 16, 17, 18.

Selective assessment	The head of the training institute together with the local trainer define the achieved level of competences on completion of the training component.
Final assessment	The head of the training institute defines the final achieved level of competences.

### The Portfolio

The **portfolio** has a central place in the training and forms a structure to stimulate the resident to self-reflect, actively learn, monitor progress and adjust the programme if necessary. The portfolio is also the source of evidence for achievement of the required competences. It contains the following elements:

1. Curriculum vitae
2. Individual Development Plan
3. Self-reflection report
4. Completed formative and summative evaluations (CEX, CAT, 360-degree feedback, reviews of performance, selective assessments and EPA's)
5. Transfer documents from trainers to the head of the institute

The role of the trainer is to motivate the resident to adequately utilise the portfolio to train, monitor progress and organise an adequate learning environment for the resident. The reviews of performance are important to structure the role of the trainer. The role of the head of the institute is to assess and approve the Individual Development Plan for each training component, as well as the selective assessments and the final assessment of the training components.

### Learning conversations

Every training component starts with an **introduction** between the resident and supervisor. In this introduction general training goals are aligned to the individual development plan of the resident in the specific hospital setting. These are based on developed competencies in previous components and specific learning goals of the actual training component. The application of evaluation instruments is then scheduled.

A **review of performance** is a structured conversation between the supervisor and resident. Based on the portfolio, the review is designed to reflect on the learning process and progress of the resident. Prior to the conversation the resident prepares the session using a self-assessment tool, the supervisor then fills in an assessment form. The supervisor forms his/her assessment by also considering the feedback of team members at the hospital and the portfolio. The outcome of the performance review is captured in the portfolio and the individual development plan is adjusted if necessary. The resident can apply for the EPA's to be granted during the training component. Normally this application is processed at the end of the training component during the **selective or final assessment**, by the head of the institute after they've consulted the trainer. A positive final assessment in which the resident has reached the required level of all EPA's, leads to an official registration as Physician GH&TM.



## Chapter 6: Teacher professionalisation

Didactic skills and a good training climate are indispensable for the training of the residents. These skills are facilitated by the training institute. Themes that need to be covered are:

- Strategies for giving and receiving feedback.
- Theory about learning and evaluating in the clinical setting.
- Structure of the training, teaching and evaluation in the clinical setting.

Trainers need to master the formative evaluation instruments, to be able to work with the portfolio and to conduct the introduction and periodic reviews of performance.

## Appendix 1: Description of Entrustable Professional Activities (EPA's) GHR

### EPA 1

Title	Surgical care
Description	Provides basic surgical care at a surgery department in a low resource setting.
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input checked="" type="checkbox"/> Collaborator <input type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input checked="" type="checkbox"/> Manager <input checked="" type="checkbox"/> Professional
Knowledge, skills and behaviour	<p>Skills</p> <ul style="list-style-type: none"> <li>• Outpatient care comprising a medical interview, physical examination and treatment plan.</li> <li>• Surgical triage with the available means.</li> <li>• Collaboration with and coordination of the clinical team in order to achieve quality care.</li> <li>• Consider determinants of health &amp; disease and cultural context.</li> </ul> <p>Areas of Knowledge</p> <ul style="list-style-type: none"> <li>• General basic surgeries.</li> <li>• Local epidemiology.</li> <li>• Available local means and constraints.</li> <li>• Local cultural perceptions.</li> </ul> <p>Professional behaviour</p> <ul style="list-style-type: none"> <li>• Treats patients with respect.</li> <li>• Collaborates with a professional attitude.</li> <li>• Communicates with respect for the level of understanding with the patient and family in the specific context.</li> </ul>
Summative evaluation	CEX, OSAT, CAT, 360-degree feedback
Level to be achieved	After residency general surgery/gynaeco-obstetrics: level 4 After residency paediatrics/gynaeco-obstetrics: level 2 at the end of the GHR
Award	After 3 years

## EPA 2

Title	Paediatric care
Description	Provides basic paediatric care at a paediatric department in a low resource setting.
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input type="checkbox"/> Collaborator <input type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input checked="" type="checkbox"/> Manager <input checked="" type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <p>Outpatient care comprising a medical interview, physical examination, evidence-based differential diagnosis and treatment plan.</p> <ul style="list-style-type: none"> <li>• Informed-consent interview with parents or caretakers.</li> <li>• Clinical file administration.</li> <li>• Organisation of patient hospitalisation.</li> <li>• Paediatric inpatient care.</li> <li>• Adequate communication with the patient, parents or caretakers and other healthcare professionals.</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• Different paediatric pathologies.</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• Manages time effectively and is able to make priorities in case of high patient occupation.</li> <li>• Promotes quality assurance.</li> <li>• Communicates professionally with the child and parents or caretakers.</li> <li>• Is medically and ethically responsible for the choice of treatment.</li> </ul>
Summative evaluation	CEX, OSAT, CAT 360-degree feedback
Level to be achieved	After residency general surgery/gynaeco-obstetrics: level 2 after GHR. After residency paediatrics/gynaeco-obstetrics: level 4 after paediatrics residency.
Award	After 3 years

**EPA 3**

Title	Gynaecological care
Description	Provides gynaecological care within a gynaecology department in a low resource setting.
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input type="checkbox"/> Collaborator <input checked="" type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input checked="" type="checkbox"/> Manager <input checked="" type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Outpatient care comprising a medical interview, physical examination (including cytology, ultrasound, cervical biopsy) and treatment plan.</li> <li>• Gynaecological triage with the available means.</li> <li>• Gynaecological diagnostics with the available means, including reproductive health.</li> <li>• Collaboration with other healthcare professionals in order to achieve quality care.</li> <li>• Collaboration and coordination of personnel in order to achieve quality care.</li> <li>• Consideration of the patient's level of understanding, determinants of disease and cultural context.</li> <li>•</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• Gynaecology and reproductive health.</li> <li>• Local epidemiology.</li> <li>• Available local means and restraints.</li> <li>• Local cultural beliefs.</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• Considers determinants of disease and cultural context.</li> <li>• Collaborates professionally with other healthcare professionals.</li> </ul>
Summative evaluation	CEX, OSAT, CAT 360-degree feedback
Level to be achieved	Level 4 after residency gynaecology-obstetrics
Award	After 3 years

#### EPA 4

Title	Communicable and Non-Communicable Diseases (NCDs)
Description	Provides care for patients with infectious diseases and NCD's in a low resource setting.
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input type="checkbox"/> Collaborator <input checked="" type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input type="checkbox"/> Manager <input checked="" type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>● Outpatient care comprising a medical interview, physical examination and treatment plan.</li> <li>● Clinical triage with the available means.</li> <li>● Diagnostics with the available means.</li> <li>● Collaboration with other healthcare professionals in order to achieve quality care.</li> <li>● Collaboration with and coordination of a clinical team in order to achieve quality care.</li> <li>● Emergency care and acute life support.</li> <li>● Lumbar puncture and pleural puncture.</li> <li>● Realisation of a blood smear.</li> <li>● Consideration of the patient's level of understanding, determinants of disease and cultural context.</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>● Principles of tropical medicine.</li> <li>● Local epidemiology.</li> <li>● Available local means and restraints.</li> <li>● Local cultural beliefs.</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>● Takes into account determinants of disease and cultural context.</li> <li>● Collaborates professionally with other healthcare professionals.</li> </ul>
Summative evaluation	CEX, OSAT, CAT 360-degree feedback
Level to be achieved	Level 4 after residency gynaecology-obstetrics
Award	After 3 years

**EPA 5**

Title	Triage and emergency care
Description	Realises triage and emergency care in a low-resource setting
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input checked="" type="checkbox"/> Collaborator <input type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input checked="" type="checkbox"/> Manager <input type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Clinical emergencies.</li> <li>• Medical conditions where transition to palliative care is necessary.</li> <li>• Correct and effective communication with collaborating nurses.</li> <li>• Consultation of other specialists if necessary.</li> <li>• Clinical file administration.</li> <li>• Acute life support or Acute trauma life support.</li> <li>• Diagnostics with the available means.</li> <li>• Collaboration with other healthcare professionals in order to achieve quality care.</li> <li>• Collaboration and coordination of personnel in order to achieve quality care.</li> <li>• Emergency care and acute life support.</li> <li>• Consideration of the patient's level of understanding, determinants of disease and cultural context.</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• Prioritisation of diagnostics and treatment.</li> <li>• Local reanimation guidelines.</li> <li>• Airway obstruction.</li> <li>• (tension) pneumothorax.</li> <li>• Hypovolemic shock.</li> <li>• Diagnostic tests.</li> <li>• available local means and restraints.</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• Asks in a timely manner for supervision.</li> <li>• Leadership.</li> <li>• Professional collaboration with colleagues.</li> <li>• Takes local cultural beliefs into account.</li> </ul>

Summative evaluation	CEX, OSAT, 360-degree feedback
Level to be achieved	After residency general surgery/gynaeco-obstetrics: level 4 after residency general surgery. After residency paediatrics/gynaeco-obstetrics: level 4 after GHR.
Award	After 3 years

## EPA 6

Title	Care after trauma
Description	Provides medical care after trauma in a low-resource setting (for trauma care see EPA 5)
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input checked="" type="checkbox"/> Collaborator <input type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input checked="" type="checkbox"/> Manager <input type="checkbox"/> Professional
Knowledge, skills and behaviour	<p>Skills</p> <ul style="list-style-type: none"> <li>● Recognition of lesions due to trauma.</li> <li>● ATLS</li> <li>● Medical interview and diagnostics.</li> <li>● Recognition of conditions where transition to palliative care is necessary.</li> <li>● Recognition and handling of signs of physical abuse.</li> <li>● Communication with patients and family concerning prognostics.</li> <li>● Communication with collaborating nurses.</li> <li>● Reposition of joint luxations and plaster immobilisation, as well as external fixation.</li> <li>● Skin or skeleton traction.</li> </ul> <p>Areas of Knowledge</p> <ul style="list-style-type: none"> <li>● Wound and fracture healing.</li> <li>● Principles of conservative fracture treatment.</li> <li>● Available local means and restraints.</li> </ul> <p>Professional behaviour</p> <ul style="list-style-type: none"> <li>● Professional collaboration with colleagues.</li> </ul>
Summative evaluation	CEX, OSAT, CAT 360-degree feedback
Level to be achieved	After residency general surgery/gynaeco-obstetrics: level 4 after residency general surgery After residency paediatrics/gynaeco-obstetrics: level 2 after GHR
Award	After 3 years



## EPA 7

Title	Acute paediatric care
Description	Provides acute paediatric care in a low resource setting
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input checked="" type="checkbox"/> Collaborator <input type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input checked="" type="checkbox"/> Manager <input type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Effective communication.</li> <li>• Temperature management.</li> <li>• Indication of supplementary diagnostics.</li> <li>• Setup of intravenous drips.</li> <li>• Professional communication with parents or caretakers.</li> <li>• Clinical file administration.</li> <li>• Consideration of the patient's level of understanding, determinants of disease and cultural context.</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• APLS</li> <li>• ETAT</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• Acknowledges proper limits of knowledge and practice.</li> <li>• Takes leadership role.</li> <li>• professional collaboration with colleagues.</li> </ul>
Summative evaluation	CEX, OSAT, CAT 360-degree feedback
Level to be achieved	After residency general surgery/gynaeco-obstetrics: level 2 after GHR After residency paediatrics/gynaeco-obstetrics: level 4 after paediatrics residency
Award	After 3 years

## EPA 8

Title	Neonatal care
Description	Provides neonatal paediatric care in a low resource setting
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input checked="" type="checkbox"/> Collaborator <input type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input checked="" type="checkbox"/> Manager <input type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Information transfer at birth.</li> <li>• Neonatal temperature management at birth.</li> <li>• Neonatal life support at birth.</li> <li>• Setup of Intravenous drips.</li> <li>• Leadership concerning diagnostics and treatment.</li> <li>• Professional communication with parents or caretakers.</li> <li>• Organisation of critical incident meetings after a complicated birth.</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• APLS</li> <li>• ETAT</li> <li>• Most common neonatal pathologies</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• Acknowledges proper limits of knowledge and practice.</li> <li>• Procures parent participation.</li> <li>• Takes leadership role.</li> <li>• Communicates effectively with birth attendants concerning women with high-risk pregnancies.</li> <li>• professional collaboration with colleagues.</li> </ul>
Summative evaluation	CEX, OSAT, CAT 360-degree feedback
Level to be achieved	After residency general surgery/gynaeco-obstetrics: level 2 after GHR After residency paediatrics/gynaeco-obstetrics: level 4 after paediatrics residency
Award	After 3 years

## EPA 9

Title	Chronic diseases
Description	Provides care for patients with chronic diseases in a low-resource setting.
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input type="checkbox"/> Collaborator <input checked="" type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input type="checkbox"/> Manager <input checked="" type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• NCD management.</li> <li>• Recognition of chronic conditions.</li> <li>• Treatment and follow-up of patients with chronic diseases.</li> <li>• Follow up of local guidelines.</li> <li>• Secondary/tertiary prevention.</li> <li>• Transfer to palliative care.</li> <li>• Effective communication considering the patient's level of understanding, determinants of disease and cultural context.</li> <li>• Stimulation of behavioural change.</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• Local gender specific epidemiology.</li> <li>• Available means and restraints.</li> <li>• Local guidelines for chronic diseases.</li> <li>• Local possibilities for palliative care.</li> <li>• Healthy lifestyle.</li> <li>• Communication skills towards behavioural change.</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• professional collaboration with colleagues</li> <li>• Effective communication considering the patient's level of understanding, determinants of disease and cultural context.</li> </ul>
Summative evaluation	CEX, PHE
Level to be achieved	Level 4 after GHR
Award	After 3 years

## EPA 10

Title	Basic surgery
Description	Provides basic surgeries in a low resource setting
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input checked="" type="checkbox"/> Collaborator <input type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input type="checkbox"/> Manager <input type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Correct surgical assessment</li> <li>• Medical/ethical consideration for intervention</li> <li>• Informed consent interview</li> <li>• Preoperative patient management</li> <li>• Organisation of hospitalisation and surgery</li> <li>• Time-out surgery and hygiene measures</li> <li>• Basic surgical interventions</li> <li>• Teamwork during surgery</li> <li>• Post-operative patient management</li> <li>• Effective communication with colleagues</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• National and international guidelines and procedures</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• Acknowledges proper limits of knowledge and practice</li> <li>• professional collaboration with colleagues and patients</li> <li>• Effective communication considering the patient's level of understanding, determinants of disease and cultural context</li> </ul>
Summative evaluation	CEX, OSATS, CAT, 360-degree feedback
Level to be achieved	After residency general surgery/gynaeco-obstetrics: level 4 after surgery residency After residency paediatrics/gynaeco-obstetrics: level 2 after GHR
Award	After 3 years

**EPA 11**

Title	Gynaecologic interventions
Description	Provides gynaecological interventions in a low-resource setting
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input checked="" type="checkbox"/> Collaborator <input type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input type="checkbox"/> Manager <input checked="" type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Correct gynaecological assessment</li> <li>• Medical/ethical consideration for intervention</li> <li>• Informed-consent interview</li> <li>• Preoperative and peri-operative patient management</li> <li>• Organisation of hospitalisation and surgery</li> <li>• Time-out surgery and hygiene measures</li> <li>• Basic gynaecological interventions</li> <li>• Teamwork during surgery</li> <li>• Post-operative patient management</li> <li>• Effective communication with colleagues</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• National and international guidelines and procedures</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• Acknowledges proper limits of knowledge and practice</li> <li>• professional collaboration with colleagues and patients</li> <li>• Effective communication considering the patient's level of understanding, determinants of disease and cultural context</li> </ul>
Summative evaluation	CEX, OSATS, CAT, 360-degree feedback
Level to be achieved	Level 4 after gynaecology residency
Award	After 3 years

## EPA 12

Title	Normal and complicated pregnancy
Description	Provides care for a normal and complicated pregnant woman in a low-resource setting
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input checked="" type="checkbox"/> Collaborator <input type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input type="checkbox"/> Manager <input checked="" type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Antenatal control.</li> <li>• Basic obstetric ultrasound.</li> <li>• Interpretation of foetal heart monitoring.</li> <li>• Correct assessment.</li> <li>• Medical/ethical consideration for treatment.</li> <li>• Informed-consent interview.</li> <li>• Effective communication considering the patient's level of understanding, determinants of disease and cultural context.</li> <li>• Stimulation of behavioural change.</li> <li>• Effective information transfer.</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• Physiology of pregnancy.</li> <li>• Risks in pregnancy.</li> <li>• National and international guidelines and procedures for antenatal and postnatal care.</li> <li>• Local law, policies and perspectives on abortion.</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• Professional collaboration with colleagues and patients.</li> <li>• Effective communication considering the patient's level of understanding, determinants of disease and cultural context.</li> </ul>
Summative evaluation	CEX, OSATS, CAT, 360-degree feedback
Level to be achieved	Level 4 after gynaecology residency
Award	After 3 years

## EPA 13

Title	Normal and complicated delivery
Description	Provides obstetric care for normal and complicated births in a low-resource setting
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input checked="" type="checkbox"/> Collaborator <input checked="" type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input type="checkbox"/> Manager <input type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Physiologic and complicated delivery.</li> <li>• Physiologic puerperium.</li> <li>• Attendance of the healthy new-born.</li> <li>• Puerperal pathologies.</li> <li>• Exclusive breastfeeding advocacy.</li> <li>• Partograph.</li> <li>• Foetal cardiac monitoring interpretation.</li> <li>• Basic obstetric ultrasound.</li> <li>• Attendance of birth, including necessary manoeuvres.</li> <li>• Shoulder dystocia.</li> <li>• Vacuum extraction.</li> <li>• Suturing of perineal rupture.</li> <li>• Episiotomy repair.</li> <li>• Manual placenta removal.</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• Physiology and pathology of delivery.</li> <li>• Physiology and pathology of puerperium.</li> <li>• Physiology and pathology of the new-born.</li> <li>• Risks in pregnancy.</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• Professional collaboration with colleagues and patients.</li> <li>• Effective communication considering the patient's level of understanding, gender, determinants of disease and cultural context.</li> </ul>
Summative evaluation	CEX, OSATS, CAT, 360-degree feedback
Level to be achieved	Level 4 after gynaecology residency
Award	After 3 years

#### EPA 14

Title	Perinatal healthcare abroad
Description	Provision of perinatal care in a low resource healthcare facility.
Relation to CanMEDS competencies	<input type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input checked="" type="checkbox"/> Collaborator <input type="checkbox"/> Scholar <input checked="" type="checkbox"/> Health advocate <input checked="" type="checkbox"/> Manager <input type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Recognizes risk groups for maternal and infant mortality.</li> <li>• Organises patient care according to local guidelines.</li> <li>• Organises preconception counselling, including anticonception.</li> <li>• Promotes exclusive breastfeeding.</li> <li>• Provides supportive supervision.</li> <li>• Administrates the clinical file for antenatal care.</li> <li>• Provides vacuum aspiration.</li> <li>• Provides abortion with medication.</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• Antenatal and postnatal care.</li> <li>• Extended programme on immunisation (epi).</li> <li>• Access to care models.</li> <li>• Local norms and values concerning pregnancy and delivery.</li> <li>• International standards concerning maternal and infant mortality.</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• Teamwork.</li> <li>• Communication adapted to the specific patient.</li> <li>• Is aware of personal values and norms concerning abortion and communicates openly and in a non-judgemental manner.</li> </ul>
Summative evaluation	CEX, OSAT
Level to be achieved	4 after GHR
Award	After 1 year

## EPA 15

Title	Epidemiology and burden of disease
Description	Applies basic and applied knowledge of epidemiology and burden of disease.



Relation to CanMEDS competencies	<input type="checkbox"/> Medical expert <input type="checkbox"/> Communicator <input type="checkbox"/> Collaborator <input checked="" type="checkbox"/> Scholar <input checked="" type="checkbox"/> Health advocate <input checked="" type="checkbox"/> Manager <input checked="" type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>● Evaluation of medical care in the epidemiologic context.</li> <li>● Interpretation of epidemiologic data and studies.</li> <li>● Assessment of relevance of research in the local context, by considering social determinants of health.</li> <li>● Interpretation of burden of disease in a global and local context.</li> <li>● Locally relevant applied epidemiologic research with disaggregated data.</li> <li>● Epidemiologic methodology and basic statistical analysis.</li> <li>● Collaboration with expert centres or consultants.</li> <li>● Translation of epidemiologic data to local and national settings.</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>● Local epidemiology.</li> <li>● Cultural and gender specific opinions concerning healthcare and disease epidemiology.</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>● Contextualised Leadership.</li> <li>● Collaboration with local, regional and national health authorities</li> <li>● Professional collaboration with external consultants.</li> </ul>
Summative evaluation	NTC exam, Public health exercise 1
Level to be achieved	4 after GHR
Award	After 1 year

**EPA 16**

Title	Preventive care in a global health context
Description	Provides preventive care in a global health context
Relation to CanMEDS competencies	<input checked="" type="checkbox"/> Medical expert <input checked="" type="checkbox"/> Communicator <input checked="" type="checkbox"/> Collaborator <input checked="" type="checkbox"/> Scholar <input type="checkbox"/> Health advocate <input type="checkbox"/> Manager <input type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Population health promotion through collective prevention.</li> <li>• Individual health promotion through selective prevention.</li> <li>• Integration of preventive care to medical care.</li> <li>• Contextualised methodologic and situational advisory, with consideration of the patient's level of understanding, gender, determinants of disease and cultural context.</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• Local epidemiology</li> <li>• Prevention of infectious diseases and NCDs.</li> <li>• Primary Healthcare (PHC).</li> <li>• Essential Programme on Immunization (EPI).</li> <li>• Knowledge of accessibility of local (referral) services.</li> <li>• Influence of lifestyle and gender specific behaviour and possible lifestyle interventions.</li> <li>• Health literacy.</li> <li>• Interventions to prevent infectious diseases and NCDs, fit in a sociocultural and gender specific context.</li> <li>• Mass media and social media.</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• Contextualised Leadership.</li> <li>• Professional collaboration with colleagues.</li> </ul>
Summative evaluation	CEX
Level to be achieved	4 after GHR
Award	After 1 year

**EPA 17**

Title	Daily management in a healthcare facility
Description	Carries out daily management in a healthcare facility
Relation to CanMEDS competencies	<input type="checkbox"/> Medical expert <input type="checkbox"/> Communicator <input checked="" type="checkbox"/> Collaborator <input type="checkbox"/> Scholar <input checked="" type="checkbox"/> Health advocate <input checked="" type="checkbox"/> Manager <input checked="" type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Team coordination in a healthcare facility.</li> <li>• Implementation of standardised operational procedures (sop's).</li> <li>• Planning of resources for medical care.</li> <li>• Reporting about care results and outcome of the healthcare facility.</li> <li>• Application of intercultural communication skills.</li> <li>• Chairperson role.</li> <li>• Effective time management and logistics.</li> <li>• Active participation in multidisciplinary meetings.</li> <li>• Cost-effectively acting in a low resource setting.</li> <li>• Elaboration of a management plan.</li> <li>• Networking with stakeholders.</li> <li>• Implementation and maintenance of patient referral systems.</li> <li>• Formulation of learning goals and feedback and organisation of educational activities.</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• Management roles in healthcare.</li> <li>• Human resource development including performance management</li> <li>• Quality control and assurance.</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• Applies understanding of (gender specific) hierarchy.</li> <li>• Assumes the leadership role if appropriate for the situation.</li> <li>• Interacts professionally with colleagues.</li> <li>• Shows respect for social, gender specific and geographical diversity.</li> <li>• Collaborates effectively with colleagues and other personnel.</li> <li>• Coaches effectively and attentively collaborators.</li> <li>• Reflects critically his/her role as a physician.</li> </ul>

Summative evaluation	CEX, CAT, 360-degree feedback, NTC exam
Level to be achieved	4 after GHR
Award	After 1 year

**EPA 18**

Title	development of local healthcare and middle- and long-term health policy in a broad sense.
Description	Contributes to the development of local healthcare and middle- and long-term health policy in a broad sense.
Relation to CanMEDS competencies	<input type="checkbox"/> Medical expert <input type="checkbox"/> Communicator <input checked="" type="checkbox"/> Collaborator <input type="checkbox"/> Scholar <input checked="" type="checkbox"/> Health advocate <input checked="" type="checkbox"/> Manager <input checked="" type="checkbox"/> Professional
Knowledge, skills and behaviour	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Analysis of the local healthcare system.</li> <li>• Assignment of available resources</li> <li>• Critical evaluation of guidelines and recommendations applicable for individuals and population groups.</li> <li>• Estimation of situations of increased health risk.</li> <li>• Knowledge application of worldwide developments in the field of research and policy.</li> <li>• Prioritisation based on the burden of disease and specific socio-economic and gender-related vulnerabilities in health.</li> <li>• Stakeholder analysis.</li> <li>• Contribution to the development of international rules and law.</li> </ul> <p><b>Areas of Knowledge</b></p> <ul style="list-style-type: none"> <li>• Health systems.</li> <li>• healthcare organisation.</li> <li>• Outbreak management.</li> <li>• Monitoring and evaluation of programmes in health.</li> <li>• Health impact assessment and integral health policy.</li> <li>• International agreements concerning healthcare organisation (WHO, EU).</li> <li>• Public relation policy.</li> </ul> <p><b>Professional behaviour</b></p> <ul style="list-style-type: none"> <li>• Assumes the leadership role if appropriate for the situation.</li> <li>• Interacts professionally with colleagues.</li> <li>• Reflects critically his/her role as a physician.</li> </ul>
Summative evaluation	PHE 2, NTC exam
Level to be achieved	4 after GHR
Award	After 1 year

## Appendix 2: Surgical and Gynaecological interventions

The required levels of performance that need to be achieved at the end of the residency are indicated below, according to the following levels:

- 1: Has knowledge of
- 2: Acts adequately with strict supervision
- 3: Acts adequately with limited supervision
- 4: Acts independently
- 5: Contributes and educates knowledge and skills

### Surgical interventions

The resident is competent in performing the most common essential and emergency surgical interventions. 1-5 (or 1-4) means the required level of performance at the end of the residency has developed to level 5 5 (or 4).

- - Basic surgical procedures
  - Wound management 1-5
  - Burns 1-5
  - Foreign bodies 1-5
  - Cellulitis and abscess 1-5
  - Excision and biopsies 1-5
- - Laparotomy and abdominal trauma 1-4
- - Acute abdominal conditions 1-4
- - Abdominal wall hernia 1-4
- - Urinary tract: treatment of acute urinary retention 1-4
- - Resuscitation and preparation for anaesthesia and surgery 1-5
- - Amputation 1-3
- - Trauma procedures
  - Traction 1-5
  - Casts and splints 1-5
  - External fixation 1-3

### Gynaecological and obstetric interventions

The resident is competent in performing the most common gynaecological and obstetric interventions

- - Pelvic transversal and median abdominal incision (1-5)
- - Caesarean section, primary secondary and repeat
- - Annex extirpation (1-4)
- - Treatment of ExtraUterine Gravidity (1-4)
- - Uterus extirpation (1-3)
- - Curettage (1-5)
- - Excision or incision of vulvar pathologies (1-4)
- - Endometrial biopsy (pipelle) (1-5)

- - Repairment of episiotomy / sphincter rupture (1-4)

### Appendix 3: Evaluation Scheme

Training Component	I			II			Cours e days	NTC*			Abroad		
Months	3	6	9	3	6	9		1	2	3	0	3	6
CEX	1	2	2	1	2	2						2	2
OSATS	5	5	5	5	5	5						5	5
CAT		1	1		1	1						1	
360-degree feedback			1			1							1
Self-reflection report											1		
Assignment/Public health exercise									1			1	1
Pre- and post-test							10						
Exam of knowledge										1			
Review of performance	1	1	1	1	1	1						1	1
Selective and final Assessment			1			1							1

\*NTC= Dutch Course on Global Health and Tropical Medicine

## Appendix 4: Expected EPA levels of the Physician GH&TM

General Surgery/Gynaeco-obstetrics					Paediatrics/Gynaeco-obstetrics				
Component	I	II	III	IV	Component	I	II	III	IV
EPA 1	4				EPA 1				
EPA 2				2	EPA 2	4			
EPA 3		4			EPA 3		4		
EPA 4				4	EPA 4				4
EPA 5	4				EPA 5				4
EPA 6	4				EPA 6				2
EPA 7				2	EPA 7	4			
EPA 8				2	EPA 8	4			
EPA 9				4	EPA 9				4
EPA 10	4				EPA 10				2
EPA 11		4			EPA 11		4		
EPA 12		4			EPA 12		4		
EPA 13		4			EPA 13		4		
EPA 14				4	EPA 14				4
EPA 15				4	EPA 15				4
EPA 16				4	EPA 16				4
EPA 17				4	EPA 17				4
EPA 18				4	EPA 18				4

I: General Surgery Training Component/ Paediatrics Training Component

II: Gynaeco-obstetrics Training Component

III: Dutch Course on Global Health and Tropical Medicine

IV: Global Health Residency

EPA Levels:

- 1: Has knowledge of
- 2: Acts adequately with strict supervision
- 3: Acts adequately with limited supervision
- 4: Acts independently
- 5: Contributes and educates knowledge and skills