

Speciality Training Curriculum Medical Doctor Global Health

2024



Opleidingsinstituut
Internationale Gezondheidszorg en Tropeneeskunde

Utrecht
September 2024

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Introduction

This is the third Medical Doctor Global Health (MDGH) speciality training curriculum. While the first version of the MDGH speciality training curriculum focused on obtaining recognition as an MDGH-KNMG profile MD, the second version - with a reorganisation of the themes and related ' *Entrustable Professional Activities* ' which are characteristic of the MDGH - provided a more practical layout. The third speciality training curriculum can learn from and build on the experiences and evaluations of the training based on almost 10 years of MDGH training. Regular evaluations of residents and research into the required knowledge and skills of MDGH currently working in the field and of employers have provided input¹ . In addition, there are many developments in the professional field of the MDGH. Public health and global health are more important than ever after the COVID-19 pandemic and the ongoing climate change. As a result of the evaluations, research and developments adjustments have been made to the competencies and therefore the EPAs. In addition, new forms of education have been included in this speciality training curriculum: intervision, e-learning and clinical lessons.

The MDGH speciality training curriculum has been developed within the framework of the College of Medical Specialities (CGS) and the specific decision MDGH, approved and recorded by the Registration committee of Medical Specialities (RGS). The last change dates back to 9th November 2022 with an adjustment of the training duration. In practice, the training period for the clinical components in the Netherlands was already two times 12 months, but formally this was still 9 months per component. This has been formally adjusted with the latest amendment to the MDGH decision.

In order to design the MDGH speciality training curriculum, the training institute set up a committee in 2023, the CHOA-2 (MDGH Speciality training curriculum Revision Committee), in which representatives from all Dutch parts of the training participated, supplemented by a representation from TROIE, the residents' association. The committee has reviewed many speciality training curriculums to learn from them. In particular, the speciality training curriculums for Surgery, Obstetrics & Gynaecology and Paediatrics have been used (again) to align the EPAs for the MDGH training with the Surgery, Obstetrics & Gynaecology and Paediatrics training, which usually take place on the same work floor. It was helpful that the representatives of the components in the CHOA are members of working groups² which form part of both the NSHG and the scientific associations. The final objectives for the first phase of the training of "MD Society and Health" were also consulted for coordination, particularly for the course based education. These consultations also anticipate possible developments in medical and healthcare specialisms, and possible modular training in the future.

The committee met several times during 2023 and 2024. The speciality training curriculum was submitted to the trainers meeting on 18th June 2024, when another thorough review of the EPAs took place. A final *draft* of the speciality training curriculum has been submitted and approved by the CIGT (International Healthcare and Tropical Medicine Concilium) and the Scientific Council of the NSGH.

¹ Research results can be found on <https://www.nvtg.org/wat-we-doen/concilium-igt> :

- Experiences and perspectives regarding Public Health education in the training of Medical Doctor Global Healths (MDGH). *C.Fenenga* June 2023
- Are Dutch physicians in global health and tropical medicine adequately trained for their work in a low resource setting: a qualitative study. *I.G.Tiggelaar* 2023
- The Dutch post-graduate training in Global Health and Tropical Medicine: International stakeholders' perspectives *J.Sherally et al.* 2023

² Netherlands Society of International Surgery, International Safe Motherhood and Reproductive Health, International Child Health.

Chapter 1 Roles, competencies and EPAs: the principles

The speciality training curriculum is competency-oriented and focuses on learning to execute professional activities with which the MDGH is involved. For this purpose Entrustable Professional Activities (EPAs) have been formulated for the MDGH. EPAs are combined with competency development, making sure the MDGH can execute EPAs without supervision at the end of the training.

The MDGH's professional field is broad and constantly changing by definition. This factual observation is therefore the starting point for this speciality training curriculum, with a description of these developments. The MDGH's ultimate activities will differ depending on the context in which they end up operating. The two intersectional areas of expertise, patient care and public health, and associated competencies, describe what is needed to become proficient in the field of MDGH. They form the framework for the course content, but are not a description of the final training objectives. As with all postgraduate medical training, the MDGH training is part of a training continuum which starts during medical school and continues after specialisation. Upon completion of the training, the resident is sufficiently competent to function as an MDGH, and the MDGH knows where he or she is competent and where he or she may not yet be sufficiently competent. In addition, the MDGH is able to develop further after the training and to adaptively deal with developments in society and the profession.

The speciality training curriculum forms the basis for the training institutions' local learning plans in which the speciality training curriculum is operationalised. In other words, when and where competencies can be developed so that the residents can become proficient in the EPAs (see Appendix 6 for relationships between competencies and EPAs). The resident takes the lead in this learning process and formulates personal learning objectives in the individual development plan (IDP) based on the local learning plan, already acquired competencies and personal focus areas. To facilitate this learning process, guidelines, advice and coaching are available from the training institute. All relevant documents are accessible via www.oigt.nl.

The developed EPAs in this Speciality training curriculum are defined on the basis of the CanMEDS competencies, focussing on seven roles:

1. Medical Expert ³
2. Communicator
3. Collaborator
4. Scholar
5. Health Advocate
6. Leader
7. Professional

The CanMEDS model is currently being revised, with the CanMeds 2025 Expert Working Groups

³ Medical practices are central to the CanMEDS competency model. Given the nature of the MDGH profession, the term 'medical' should be broadly interpreted: as acting in healthcare and not only as acting within the individual doctor-patient relationship.

⁴<https://www.royalcollege.ca/en/canmeds/canmeds-25/emerging-concepts.html>

considering new concepts⁴. These concepts have not yet been translated into competencies, but are already closely interwoven with the MDGH's professional field and profile, as described in Chapter 2 and Appendix 2. Several of these concepts already existed within the training, but will be even more strongly reflected in the competencies and subsequently in the EPAs. These are the following *emerging concepts* :

- Adaptive expertise
- Anti-racism
- Clinical reasoning
- Clinical learning environment
- Complex adaptive systems
- Data-informed medicine
- Equality, diversity, inclusion and social justice
- *Indigenous Health,*
- *Physician Humanism,*
- *Planetary Health,*
- Remote medicine and virtual medicine

Chapter 2 The MDGH

2.1 Developments

Developments in the field of MDGH, in the areas of global health, climate change and planetary health, have resulted in a need for the MDGH competencies to be reviewed and updated. The MDGH's position is also becoming increasingly anchored in our healthcare system, due to a changing context in the Netherlands. The shift of care from intramural to extramural gives the MDGH, whose professional field is always at the intersection of hospital and community, an opportunity to further manifest him or herself as a competent connector in the healthcare system. MDGH's competencies in the field of intersectionality can be further utilised.

The pressure on healthcare systems is increasing all over the world. Demographic and climate-related factors play an important role here. For example, global aging is causing an increase in multimorbidity, whether or not based on lifestyle-related diseases. The Netherlands also faces these challenges. Shortages in healthcare personnel and rising costs are putting pressure on the healthcare system, especially in the periphery of the Netherlands and in major cities' disadvantaged neighbourhoods. The Integrated Healthcare Agreement (IHA) attempts to provide an answer to this question. 'Appropriate care', care which is provided in the right place, which adds value to the quality of life, and which is established between doctor and patient, is one of the IHA's central focus points. Appropriate care is a given fact for the MDGH: the context in which the MDGH works demands this by definition. It is up to the MDGH to capitalise on this experience in the Dutch context.

The scientific association in the field of global healthcare, as well as the professional association, the NSGH (Netherlands Society for Global Health), is changing. Healthcare and healthcare systems are not static. There is more local ownership, healthcare workers work globally, knowledge no longer only flows from North to South and there is increasing attention for deep-rooted power imbalances and privileged positions, both within countries and globally. The NSGH is co-developing in this context: less focus on 'tropics' and more on global issues and combating inequality in healthcare. The announced and approved name change to "Netherlands' Society for Global Health ⁵" (NSGH) by the general meeting is an illustration of this. The title of Medical Doctor Global Health will also be adjusted in line with the name change of the NVTG to NSGH. The NSGH, together with the Training Institute (OIGT) and the Knowledge Centre Global Health (KCGH), form an inseparable trinity within which the MDGH is trained. Together they are committed to optimal quality and accessibility of care, for everyone and anywhere in the world, and as such can make a positive contribution to global health and healthcare in the Netherlands.

Achieving the Sustainable Development Goals (SDG) ⁶ is a global race against time: goals appear not to be achieved and there is even regression on some goals. The Dutch government is aware of the urgency and of a changing global context: the Dutch Global Health Strategy (DGHS) and, as part of it, the Global Health Hub are examples of this. The MDGH can make an important contribution to the implementation of Dutch national and international policy. After all, they have knowledge of global health, pandemic preparedness and addressing climate change-related impact on public health, the three priorities of the DGHS.

⁵ This name change will formally take effect on 1-1-2025

⁶<https://sdgs.un.org/goals>

2.2 The MDGH's profile

The MDGH is a generalist in the field of general and specific aspects of disease, health and public health which occur in the modern, highly globalising and international society, whereby the MDGH applies this knowledge of global healthcare both within and outside of the Netherlands. International healthcare and tropical medicine are at the intersection of curative and preventive medicine and health promotion and move between individual patients with their illness or health and the larger groups in which the individual finds himself (see figure 1 areas of expertise). The MDGH pays specific attention to vulnerable groups: groups of people who are at extra risk of poorer health outcomes due to a certain characteristic. The MDGH is aware of this and operates within, and in interaction with, the larger context of global health and planetary health.

While the MDGH oversees healthcare in a global context, they are capable of adapting to environments with different epidemiology and pathology, or at individual level, for example in migrants. She/he/they has knowledge of social, societal, cultural, gender-specific and political factors which influence this. The MDGH is able to adequately communicate with each individual and collaborate with experts. The principles of ethical behaviour and evidence-based medicine are applied at all times, with respect for local, cultural and social factors.

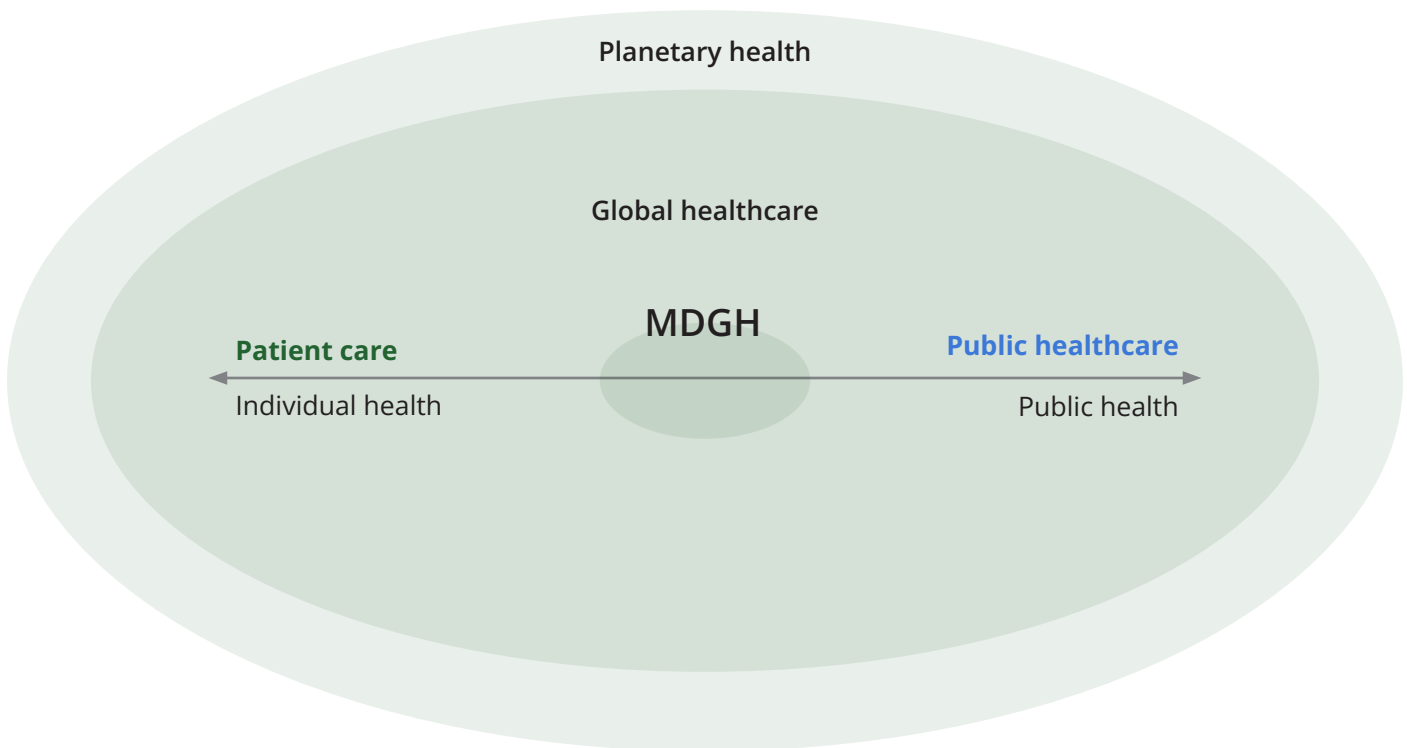


Figure 1: The MDGH's areas of expertise

The description of the CanMEDS competencies within the MDGH areas of expertise is included in Appendix 2. Advancing insights into the roles which physicians have within the changing world view, such as in the announced revision of the CanMeds roles with more attention devoted to equality and social justice, have always been part of the MDGH professional field and are now given extra emphasis in this new speciality training curriculum.

In general terms, the MDGH's professional competence can be described as:

Expertise area: Patient Care

The MDGH has adequate knowledge and skills and demonstrates professional conduct in accordance with the state of international healthcare and tropical medicine (the field), enabling the MDGH to provide up-to-date, effective, personalised and ethically responsible, curative and preventive care, for sick people (patients), as well as for healthy people (clients) and for groups in society (target groups).

Expertise area: Public healthcare

The MDGH is aware of the principles of public healthcare in local, international and global contexts, in which economic transition and climate change play a major role.

The MDGH has knowledge of social, societal, cultural, gender-specific and political factors, which influence diseases and the health of individuals, as well as groups in society. The MDGH is aware of his/her/their responsibility for effective (preventive) healthcare at individual and community level. The MDGH is aware of the relevant legal, socio-cultural and political regulations and traditions and he/she/they work in accordance with his/her own position and that of patients.

Medical expert

The MDGH has adequate knowledge and skills, and demonstrates professional behaviour in accordance with the state of the professional field, which gives him or her adaptive expertise and the ability to collect and interpret contextual data regarding individuals and population groups' health and health issues. As a generalist, the MDGH can set priorities and make decisions, even with scarce resources. She/he/they provides up-to-date, effective and ethically responsible, preventive and curative care, to both sick people (patients) and healthy people (clients) and to groups in society (target groups). Clinical reasoning is an important competence, specifically for the MDGH who is able to work with minimal resources.

The MDGH has specific knowledge of the epidemiological aspects of diseases and is able to apply both curative care and a public health approach, i.e. to conduct analyses of patient populations, and to formulate options for policies and interventions in multidisciplinary teams. The MDGH has specific knowledge in the field of poverty-related diseases and socio-economic health diCEXrities.

Communicator

The MDGH uses relevant knowledge in its communication in the field of anti-racism, intercultural, gender-sensitive and age-specific aspects of healthcare, with respect for the diversity of cultural and social standards, values, rights and forms of interaction.

The MDGH is able to effectively communicate with patients, family/caregivers, non-professional healthcare providers and broader groups in society to ensure an optimal level of healthcare.

Collaborator

The MDGH works as part of a team and participates in a network of functional relationships. The MDGH works together with professionals and people with practical training in society, who are involved with (preventive) healthcare and demonstrates medical leadership. The MDGH also devotes attention to traditional medicine ('indigenous health'). The MDGH can adequately collaborate with experts from other sectors, who make a relevant contribution to promoting and protecting the health of the population.

Scolar

The MDGH is characterised by his/her continuous efforts to optimise his/her knowledge and skills in the field. The MDGH can recognise and critically consider the many scientific aspects of practices and, where possible, arrive at questions for (applied) scientific research, based on its own observations and experience. This includes the analysis and interpretation of demographic, epidemiological and social scientific data, and the assessment of medical information sources for their relevance to the MDGH's relevant professional field. The MDGH is capable of transferring knowledge and science within and outside of the professional group and in society. The MDGH is particularly familiar with the efficiency of resources and is cost-conscious.

Health Advocate

The MDGH has knowledge of social, societal, cultural, gender-related and political factors which influence diseases and the health of individuals, as well as groups in society. In a broader context, the MDGH has knowledge of care for vulnerable groups and an understanding of how to tackle socio-economic health disadvantages. The MDGH is aware of the relevant legal, socio-cultural and political regulations and traditions and he/she/they work in accordance with his/her own position and that of patients. The MDGH positions him or herself as an advocate of integrated health policy.

Leader

The MDGH functions as an expert in the daily management of a healthcare institution and makes decisions about tasks, policy, employees and resources for preventive and curative care. The MDGH is able to set goals and priorities, delegate effectively, and conduct systematic assessments of the use of limited healthcare resources. The MDGH can provide care in a complex adaptive environment, such as an international setting, and contribute to quality improvement and the development of healthcare.

Professional

The MDGH has a special role in the professional field as an expert with specific knowledge, skills and behaviour, aimed at improving healthcare for individuals and public health. He/she/they strives for the highest possible standards of care and ethical behaviour and strives to optimise his/her/their own knowledge.

2.3 Field of work

MDGH find their way in a wide spectrum of positions. The MDGH's specific knowledge in the field of planetary health and global healthcare adds value when fulfilling these positions.

The MDGH often works with special attention devoted to vulnerable groups and with a specific focus on social justice: people who are at extra risk of poorer health outcomes due to certain characteristics, who require specific and additional investments to achieve equivalent health outcomes. The context largely determines this outcome: groups may experience limitations where accessing care is concerned due to stigmatisation, discrimination and racism (people from the *Lesbian , Gay , Transgender , Bisexual , Queer , Intersex* or other sexuality community (LGTBQI+), people with disabilities, people with a migration background, refugees, sex workers and other minorities). During natural disasters, epidemics, violence and war, the most vulnerable groups are children, pregnant women, the elderly, people suffering from malnutrition, the (chronically) ill and/or people who are immunosuppressed (including HIV), intellectual disabilities and people with a psychiatric disorder.

2.4 Demarcation of specialism

The MDGH occupies a special position in the medical field. The MDGH has clinical and public health competencies. The MDGH offers added value in work where clinical medicine and public health come together, because this physician can quickly switch between disciplines and understands the language of different sectors. The MDGH has a better understanding of, among other things, imported diseases, epidemics and the influence of social determinants on health, as a result of knowledge and experience in the global field and various local contexts. The MDGH combines clinical competencies with public healthcare knowledge. The MDGH is trained, both theoretically and practically, to make the right decisions in the event of scarcity for the benefit of public health, at macro, meso and micro levels. Efficiency is the MDGH's guiding principle.

Chapter 3 The core of the curriculum


The training has two variants in the training programme: one with the combination of Surgery and Obstetrics & Gynaecology and a variant with the combination of Paediatrics and Obstetrics & Gynaecology. The training is therefore individually different, but mutually recognised as equivalent.

In order to shape the content of the training, four themes have been identified within the MDGH's two areas of expertise: technical skills, acute care, general and public healthcare (see table 3.1). These themes have been translated into 17 characteristic professional tasks: *Entrustable Professional Activities* (EPAs), for which the resident can develop the necessary competencies during the training. The EPAs are further described in Appendix 3.

Patient care

<p>Essential technical skills</p> <p>Acute care</p> <p>General care</p> <p>Public health</p>	1. Provides general peri-operative and surgical care
	2. Provides general peri- and operative gynaecological care
	3. Provides care after trauma
	4. Conducts triage and provides care for the acutely ill patient
	5. Conducts triage and provides care for the acutely ill child
	6. Pregnancy, childbirth and postnatal period in high risk or complicated cases
	7. Provides general surgical care
	8. Provides general gynaecological care
	9. Provides reproductive healthcare
	10. Provides general paediatric care
	11. Provides neonatal care
	12. Provides care for patients with infectious diseases and/or NCDs
	13. Provides care for chronic patients
	14. Supervises healthy pregnancies and normal deliveries
	15. Promotes high-quality care within a healthcare institution
	16. Promotes accessibility and sustainability of the healthcare system
	17. Promotes public and global healthcare

Public healthcare

 Granting of EPA: Surgery

 Granting of EPA: Gynaecology

 Granting of EPA: Paediatrics

 Granting of EPA: Training Institute

Table 3: Areas of Expertise and EPAs

Chapter 4 Structure of the training

4.1 Training vision

A physician never stops learning. Learning starts with medical training and, after specialisation, continues with further and additional training, which is part of re-registration. The training uses the learning concept whereby knowledge is actively constructed by the learner and cannot simply be transferred by a trainer, supervisors or other experts. People are constantly busy interpreting phenomena in the world around them and creating their own images of these. The training of residents is therefore best done by facilitating the residents in the learning process on the work floor, in particular by placing a lot of initiative and responsibility for the learning process with the residents themselves and allowing them to direct their own learning process. This is particularly important for learning after the MDGH training. Facilitating the learning process requires a certain attitude from the supervisor, who primarily has a coaching role. The supervisors' role is to help and guide the trainee in the process of signification. In order to provide the residents with as much context as possible from the start of the training, also for the clinical components in the Netherlands, about the connection between patient care and public healthcare, and global healthcare, in fact learning about the world around you, two weeks of introductory training have been added to provide the residents with the framework for this.

Most of the training therefore takes place in practical situations. This is the practice of both Dutch healthcare and abroad. Preparation for this should take place through role models, experiences of others and reflection. The resident learns through daily practices by being part of a group, by observing what happens there, how people work together and by discovering and developing their own role in the process. Experiential learning, role models and increasing independence are key concepts here. The required background knowledge is acquired by self-study via e-learning, webinars, manuals, current literature and by following the course curriculum.

The programme opts for competency-based education (CBE). CBE is aimed at developing competencies in the learner. Characteristic of this type of education is that it is profession-related, aimed at appropriate action and leading to EPAs.

The MDGH's established competencies, as described in Appendix 2, are important for determining both the content and the form and organisation of the training. The competency profile determines:

- The assessment of the competencies and the certification of EPAs
- The creation of the individual development plan (IDP) and training schedule
- The resident's reflection on his development as a professional
- The development of the portfolio.

4.2 Training methods

The training incorporates the following core elements into its didactics:

- Learning is active: the resident actively thinks about a topic or problem, sets learning goals for his/her practical learning, prepares for teaching activities, brings in case studies and is prepared for reflection and intervision
- Learning is developing and does not progress in a linear manner
- Learning takes place through a combination of theory and practice
- The resident is responsible for his or her own learning process
- The supervisor is co-responsible for the resident's learning process
- The head of the institute is ultimately responsible for the entire learning process and end result

There is a tiered responsibility, with the head of the training institute ultimately responsible for the

training of the residents. He/she/they supervises the entire training and ensures the components are coordinated, including the assessment of the MDGH training itself.

Practical learning

The MDGH training is partly practical and largely takes place on the work floor. The resident develops by participating with daily activities during the training components. The resident must use these activities to learn and will be coached by the supervisor. Several guidance instruments are available for this purpose (see Table 5.4). For the supervisor in concrete terms this means that, in consultation with the trainee and based on the portfolio, those moments which are relevant for learning are selected on a random basis from the large number of teaching and learning moments. Based on the agreements made in the periodic reviews of performance, the resident must actively search for learning materials or training activities which can achieve the stated learning objectives most effectively. Activities should be structured to a greater or lesser extent, depending on the level and specific learning objectives. Providing structured and constructive feedback during and/or after the activity is essential. In addition to the above-mentioned activities, the supervisor and residents are free to agree on other learning materials.

On-call duty percentage

Practical training in on-call duties is an integral part of the training. On-call duties often involve missing non-direct patient-related training moments during the day. On the other hand, in today's on-call duties there is often an in-house supervisor, which means there are many (acute) patient-related training opportunities available. In addition, on-call duties offer excellent opportunities for independent working, including personal responsibility. So it's important to find a good balance between working during the day, during office hours, and shifts. Ideally, 25% with a maximum of 30% of the hours worked can take place during ENW (Evening, Night and Weekend shifts) during the components in the Netherlands, a percentage which is also common in other medical specialist training courses. The local learning plans contain more detailed agreements specifically for the training institution. For the Global Health Residency, a motivated deviation is possible and a higher percentage is possible. There are no duties during the *Core Course in Public Health and Health Equity* (CCPH-HE) (see next chapter).

Other learning methods

The training institute organises intervision, in order to support learning and to be more effective in working and learning. In addition to practical training, there are additional opportunities for residents to learn (see table 4.1): the training starts with a two-week introduction which prepares residents for the Dutch components, and, in addition to the mandatory course components, e-learnings and clinical lessons are offered too. In addition, the KCGH and NSGH organise meetings which are relevant to residents.

Competencies are learned in two ways:

- In blocks (within a defined period)
- Incremental (partly within blocks, partly through coursework, etc.)

Components	Introduction weeks	Part 1	Part 2	CCPH-HE	Part 3	Total duration course
	10 days					
Mandatory Coursework		5 course days	5 course days	70 course days		
Mandatory Clinical components		12 months	12 months	3 months	6 months	33 months

Table 4.1: Training structure

4.3 The training components in the Netherlands

The following two options are available for the training components in the Netherlands:

- One part Surgery and one part Obstetrics & Gynaecology (the 'variant with Surgery')
- One part Paediatrics and one part Obstetrics & Gynaecology (the 'variant with Paediatrics')

The training components are aimed at obtaining competences certificates from the EPAs. Although the resident will gain specific expertise during the various training components in the two variants, the training components are aimed at acquiring general competences which are relevant to the practical implementation after completion of the entire training. The Dutch components take place in Dutch accredited training institutions under the supervision of accredited supervisors. There is a local learning plan for the components in which this training curriculum is translated to the local situation. There is room for attending education during the clinical components in the Netherlands. For this education, which is often of a coursework nature, the OIGT has drawn up a list of recommended courses, some of which are made compulsory by the trainee's employer.

The achieved competency levels and EPAs in the first part are therefore the most useful for the second part. The training components take place in training institutions in the Netherlands which are recognised for this purpose in accordance with the rules of the specific 'IGT Decree'.

4.4 Coursework

Not all competencies can be optimally and/or efficiently developed without learning opportunities outside the daily workplace. Actively discussing the content of the profession greatly contributes to understanding the subject matter and reflection about the MDGH role. This communication implicitly tests the extent to which learning material has been mastered. The design of education, in which active participation of the learner and the teacher or trainer plays an important role, is essential within the coursework element. The coursework part of the MDGH training consists of two parts, namely course days and the *Core Course in Public Health and Health Equity* (CCPH-HE). The objectives of the coursework are indicated in Table 4.2.

The course days take place during the first two parts of the training in the Netherlands. The CCPH-HE takes place after the clinical components in the Netherlands. The CCPH-HE learning objectives for the 2024-2025 academic year are attached as Appendix 7. The learning objectives may change slightly per academic year, based on new insights and evaluations. Learning objectives are coordinated with the organiser, and the CIGT and OIGT.

Coursework	content
Course days	Specific competencies related to patient care, as well as public healthcare, which are not covered during the Dutch components, and which are important in preparation for GHR and the MDGH's professional field. For example, Ophthalmology, ENT, Dermatology, Radiology and Anaesthesia may be discussed here.
CCPH-HE	A 3-month course which prepares residents to systematically analyse and address complex public health issues, covering epidemiology, healthcare system aspects, and broader social determinants of health. The course focuses on health equity, both in low-income countries and in affluent settings with disadvantaged populations.

Table 4.2: Coursework

4.5 The Global Health Residency

The resident will follow a six-month practical component in a context other than the Netherlands. The training programme will follow the United Nations' criteria in order to determine these countries (for complete lists of countries and their income status, see www.un.org). Working in a context other than the Dutch is of great importance for acquiring the specific competencies which characterise the MDGH.

The Training Institute has agreements with several institutions and physicians abroad for the Global Health Residency (GHR). These settings meet the requirements as formulated in the 'MDGH decision'.

The context within which training is followed abroad is different from that in the Netherlands. In deviation from what is described in this speciality training curriculum, the following documents apply in relation to this practical component: 'Global Health Residency Description' with the associated 'GHR Assessment Guide' and description of the 'Global Health Exercise'. These documents are available via the OIGT website.

The quality of the Global Health Residency (GHR) is guaranteed by a continuous quality cycle which is carried out by the training institute in collaboration with the institutions.

During the GHR the resident carries out work under the supervision of the supervisor working in the institution with whom the agreement has been signed. Before leaving for the training institution abroad, the resident writes a reflection report on the training to date, and uses this as a base for the IDP which is in accordance with the local learning plan. The resident completes a "global health exercise" during the GHR, aimed at the effective sustainable development of medium and long term local healthcare.

Component	Purpose and themes
Global Health Residency	<ol style="list-style-type: none"> 1. to delve into clinical and public healthcare (community health and outreach) within the context of the GHR hospital 2. to work together within this context to strengthen local healthcare in a sustainable and equal manner, 3. to further develop their EPA skills in practice

Table 4.3: Global Health Residency

4.6 Extramural care pilot internship

A new development within the MDGH training is the possibility of an internship in extramural care. This internship offers the resident the opportunity to introduce flexibility into the training and to respond to the individual resident's learning goals.

By choosing an internship which matches their interests and career goals, residents can focus on specific areas of interest within international healthcare and tropical medicine. This not only makes the training more relevant, but also more personal and effective for their future careers.

An internship within the MDGH training must have an innovative framework which promotes interdisciplinary learning and collaboration. It offers the opportunity to establish interdisciplinary connections, both from the context of individual patient care and at population level.

The OIGT will further develop this internship and investigate how to finance it during the forthcoming years. This will partly determine how the internship can become a permanent part of the training. Due to the short duration of the training and the lack of funding for the training, the internship will, for the time being, take place in the residents' own time, i.e. outside the formal training period. The internships will therefore be optional.

Below are two examples of internships to be developed.

Pandemic Preparedness Module

This module can take place at government institutions or another organisation which plays a role in large-scale outbreaks of infectious diseases. The recent COVID-19 pandemic has emphasised the need for pandemic preparedness. MDGHs must be equipped with pandemic preparedness competencies to conduct risk assessments, crisis management and, in particular, interdisciplinary collaboration.

The resident can further develop his or her skills in the following subjects during this module:

- **Risk analysis** : The resident learns to identify and analyse potential health risks, including the impact of infectious diseases on population groups.
- **Crisis management** : The resident learns skills and has knowledge of interventions to quickly and effectively respond to health crises, including the setting up of emergency plans and interventions.
- **Network medicine**: The resident learns why network medicine is essential during times when health problems are often a transnational issue. Complex health challenges require innovative solutions. Such networks strengthen collaboration and communication in healthcare, which is crucial for effectively addressing health problems at individual, regional and international levels.

- **Interdisciplinary Collaboration** : The resident learns to collaborate with a wide range of stakeholders, including international organisations (WHO, UNICEF, etc.), government agencies, other specialist or profile MD trainings (such as the MD Society and Health training course), infectious disease control, NGOs, and communities, to ensure a coordinated approach.
- **Health indicators** : The resident learns how culture and social determinants of health partly determine the outcome of health indicators.
- **Quality of Care** : The resident acquires an insight into how the organisation of care, availability of resources, level of education of care providers and the implementation of guidelines influence the quality of care. A well-organised health system which identifies reciprocal and vulnerable groups can lead to better patient outcomes.
- **Learning at health system level**: residents learn to analyse data to understand what works and what doesn't within the health system. Learning from best practices and mistakes can improve the effectiveness of care. This can also be done through evaluations of programmes and interventions.
- **Impact of Policy Choices**: the resident learns how policy decisions, such as the way in which care is financed, the availability of preventive care, and the implementation of health policy, have direct consequences for health outcomes. For example, promoting equal access to care can contribute to better health outcomes for disadvantaged groups.
- **Collaboration between Sectors** : Health systems also deal with social determinants of health, such as education, income, and the living environment. The resident learns how working together at system level can help address broader societal factors which influence health.
- **Data-driven Decision Making** : The resident learns how using data and statistics to support healthcare decisions can help improve the effectiveness of interventions and result in better health outcomes.

Module: Migration and its Impact on Health

Developing a module on migration and its impact on health is a module which can be developed within the MDGH training programme in particular, as it requires a deeper focus on the specific health challenges faced by migrants, as well as the broader socio-economic and cultural context.

Within this module, the resident will gain an insight into the complex relationship between migration and health. The resident will gain knowledge of the specific health problems experienced by migrants and understands the role of physicians and health professionals in supporting migrants. This module can help residents to not only gain an insight into migrants' health challenges, but also to develop the necessary skills to effectively support them within the framework of international healthcare and tropical medicine. In practice, the resident will work at asylum seekers' centres, the Central Agency for Asylum Seekers, or Doctors of the World.

The resident will gain skills in working with migrant populations, whereby the resident can further develop his or her skills in the following subjects:

- **Migration and Health** : The resident knows the definitions of relevant terminology: migration, refugees, asylum seekers and undocumented persons and has an overview of migration patterns and demographic trends, with a focus on the international context.
- **Health Impact of Migration** :
 - **Physical Health** : The resident is aware of the specific health risks (e.g. infectious diseases, non-communicable diseases) and has an insight into how access to basic healthcare and preventive services is arranged.
 - **Mental Health** : The resident is familiar with psychosocial challenges, such as trauma associated with violence, persecution and social exclusion and stress and adjustment problems in new cultural environments.
- **Socio-economic factors** : The resident has knowledge of the impact of socio-economic status on the health of migrants and the role of employment, housing and social network in health.
- **Barriers to healthcare** : The resident has knowledge of structural and cultural barriers which impede access to healthcare. Language barriers and the role of intercultural communication in healthcare.
- **Policy and Interventions** : The resident has knowledge, and an overview, of international and national policies regarding migration and health. The resident will learn what effective health interventions and models of integrated care are for migrants. The resident is familiar with the evaluation of health programmes aimed at specific migrant populations.

Chapter 5 Training, testing and assessment

5.1 Principles for assessment

The starting point is that within each EPA the competence development is monitored and tested in order to ultimately be granted the EPA.

The concept of competence emphasises a clear relationship between knowledge and knowledge application and professional skills. Competent practice involves the ability to evaluate and assess the quality of one's own work, integrated with the right knowledge, skills and attitude. This quality is a prerequisite for achieving a predetermined result (return, product, service or effect) in a particular organisation. The emphasis is on personal qualities which must produce a relevant yield or result for the context. The essence of competency-based testing is to obtain an indication of the level of professional competence, as formulated in the EPAs defined for the MDGH training.

The programme has opted to use both formative and summative assessments. Both forms of assessment play an important role in the training, but the emphasis is on formative assessment. Formative assessments are formative, development-oriented assessments. The resident thereby receives feedback which will enable him/her to better manage his/her own development, with the support of the supervisor. Formative assessments also have a diagnostic function. The supervisor, the head of the training institute and the resident will acquire knowledge of the level at which the resident has mastered a particular (partial) competence through formative assessments. Points for improvement can be formulated and evaluated based on such a testing instrument.

A summative test is intended to collect data which can be used to assess whether the resident actually masters his/her/their competencies at the intended level and has a selective function. Summative test methods guarantee external stakeholders that the resident meets the required level of intended competency. The reliability of assessments increases as the number of assessment moments, assessment types and assessors increases.

The CanMEDS model shows that the seven defined areas of competence overlap and that the sum of these seven produces the medical expert dimension. A maximum of two to three competency areas can be tested per assessment moment.

The different assessment formats ultimately lead to EPAs being granted. This is not necessarily at the end of a course unit. The minimum expectation is defined for each EPA (see appendix 3 and 6). The EPAs granted during the clinical components in the Netherlands will have to be maintained and contextualised during the Global Health Residency.

Granting an EPA does not depend on the number of formative assessments. Nevertheless, the assessment matrix includes minimum numbers per assessment instrument to encourage residents and trainers to use the instruments to monitor the learning objectives to be achieved. EPAs cannot be 'slightly' granted. With two variants, the training structure has differences in required EPAs. Nevertheless, the training institute considers it desirable for EPAs granted in one variant and not in the other, to have a minimum competence level of 2 at the end of the training (see appendix 5). Formative assessments are conducted for these EPAs. These are not included in the selective assessments of the variant being followed. At the end of the training residents will have received an individually different, but mutually equivalent, broad and solid education.

5.2 Assessment and assessment scales

Multiple measurements are taken in different situations, under different circumstances and by different assessors in the training institutions and by the OIGT. On the basis of which reasoning a particular assessment has been reached must be transparent. Such an assessment is therefore admissible for objection or appeal. The head is ultimately responsible for the assessment of the

resident.

The MDGH training uses five levels of competence, namely:

Level	Purpose and themes
1	Has knowledge of
2	Acts adequately under strict supervision
3	Acts adequately under limited supervision
4	Acts independently
5	Transfers knowledge and skills and teaches during the procedure

Table 5.1: MDGH training proficiency levels

5.3 Assessment points

Assessment points have been established for the MDGH training. An assessment point indicates at which point a resident must have achieved a certain level of competence.

The training has three assessment points during the training:

1. Assessment point I: at the end of part 1
2. Assessment point II: at the end of part 2
3. Assessment point III: at the end of the training

For each theme, the proficiency level which must be achieved per assessment point is indicated per EPA. Appendix 5 indicates which EPAs must be granted as a minimum for each variant and assessment point. This table also defines EPAs at proficiency level 2, which is not possible in the definition of an EPA. These EPAs are included in the table, as they are subject to minimum requirements.

5.4 Testing and assessment instruments

Documentation is very important in the testing and assessment system. A number of different evaluation forms are collected for each training component, providing a versatile and complete picture of the resident. The resident collects these forms in the portfolio. The formative tests (Table 5.3), the guidance instruments (Table 5.4) and the summative assessment instruments (Table 5.5) are described below. A formative assessment is not an optional assessment. The results will be included in the portfolio and the assessment will include compliance with, feedback on, and results of the formative assessments in the summative and selective assessment, and in the final assessment of the training programme. In addition, EPAs are granted based on the formative assessments. CEXs are assessed using pre-established criteria using an assessment scale (Table 5.2).

This competence is	Numerical designation
• Critical point	1
• Improvement point	2
• As expected	3
• Above expectations	4
• Excellent	5

Table 5.2: Rating scale

Formative assessment tools	What is it?
Clinical Evaluation Exercise (CEX)	<p>The Clinical Evaluation Exercise (CEX) is a testing instrument which is easy to implement in daily practice. It is intended as an observational assessment of the resident in daily practices; therefore, nothing extra needs to be organised for this test. Handover meetings, consultations and discussions can be tested in this way. The CEX is discussed and lessons learned are formulated.</p> <p>The CEX is most valid as a separate test due to the direct observation of someone's functioning on the work floor. Reliability increases when assessed by multiple staff members. The initiative to take a CEX can be taken by either the resident or the supervisor. The subject of the CEX is discussed in consultation. The CEX form should only assess what has been observed or assessed. The free writing part on the form is important for targeted feedback (what is going well, what could be improved). The intention is that the resident is assessed according to the level of competence achieved (see table 5.2). The resident needs to include all CEX forms in the portfolio.</p>
Objective Structured Assessment of Technical Skills (OSATS)	<p>The assessment of (surgical) skills takes place immediately after completion of a (surgical) procedure. It is a testing instrument which allows the resident to be assessed on important aspects of the procedure in a short period of time. The instrument is formative in itself, but the trainer can use it summatively during selective assessments with sufficient assessments of a variety of activities. The type of skill is predetermined.</p>
360 degree feedback	<p>The 360-degree feedback is an assessment method in which those involved in the workplace are asked to assess the performance of the resident according to a fixed format. This means that nurses, secretarial staff, facility staff, fellow residents, paramedics and, if desired, patients are asked for a brief assessment. Topics such as professional behaviour and collaboration can be better mapped out in this way.</p>

Critically Appraised Topic (CAT)	A CAT is a critical review of an article, related to a clinical or other relevant scenario regarding international healthcare. This then leads to a standardised answer based on recent literature. Such an exercise starts with formulating a useful research question, continues with converting the question into a targeted literature study, after which relevant literature is selected. It ends with a conclusion which answers the initial question. This method meets the need to learn to read, interpret and value professional literature in relation to daily practices.
Open book exam	Knowledge, integration and application of knowledge.
Reflection reports	The resident provides self-reflection and analysis of the training progress to date before the start of the Global Health Residency. This forms the basis for creating the IDP for the Global Health Residency.

Table 5.3: Formative assessment tools

Guidance tools	What is it?
Portfolio	The portfolio directs the learning process, contains the Individual Development Plan (IDP) and is a collection of information sources of both formative and summative assessment data (CEXs, OSATS, 360 degree feedback, assignments, self-reflection, peer assessments, self-assessment) on the basis of which learning objectives can be formulated and reflection on the functioning of the physician by himself or herself and others can take place. Compulsory components are also signed off and test results are collected.
Periodic reviews of performance	During the training components there are at least three to four periodic reviews of performance, and two during the GHR. The aim is for residents and supervisors to jointly reflect on the training in general and the progress of the residents in particular. The supervisor explicitly plays the role of coach during these interviews. The periodic review of performance is not an assessment interview. The resident demonstrates the progress of his competence development through his portfolio and which matters may require more attention in the remaining time will be discussed. The portfolio is also used to determine whether the portfolio obligations have been met. During the periodic review of performance the supervisor and the resident examine whether all competencies have been covered in the past period.

Intervision	From the start of the training, the OIGT offers intervision to the residents at least twice. The aim of the intervision meetings is to develop the competence of medical professionalism through reflection and evaluation of their own functioning, to become acquainted with intervision methods and to prepare for intervision as MDGH. The meetings are mandatory and supervised by an intervisor.
Portfolio discussion	Portfolio discussions with the OIGT will take place regularly throughout the training, but at least twice. The aim is to ensure the continuity of the training across the various components and coursework and to strengthen the typical characteristics of the MDGH.

Table 5.4: Guidance tools

Summative assessment tools	What is it?
Assignment	Academic skills and <i>evidence based medicine</i> .
Final assessment	The head of the training institute assesses the final level of the resident on the basis of the portfolio.
Selective assessment	In the selective assessment, the head of the training institute, in consultation with the supervisor, gives an assessment of the performance of the resident based on the competency score and the portfolio. This takes place at the end of a part of the training.

Table 5.5: Assessment tools

5.5 The portfolio

Due to the portfolio's important role, this section will explicitly discuss the portfolio. The portfolio is a collection of documents, resulting from the 'framework decision' and the specific decisions, which demonstrate the progress of the training and the self-reflection of the resident, and minimally contains the documents for the assessment of the resident, the presentations given, papers, published articles, courses followed and activities performed. To ensure the portfolio fulfils its function, it must be given a structural place in the training. Otherwise it will become a static collection folder. It is intended as a means for residents to structure their training, to encourage residents to self-reflect and actively learn, to monitor progress and to make adjustments where necessary.

The portfolio is a collection of products which provide an image of the learning process and learning results of the resident. It also provides the resident with evidence that he/she is acquiring the required competencies and training content and it is the basis on which the resident can work in a targeted manner on his/her/their further development and training. Building the portfolio is a shared responsibility of residents, supervisors and the head of the training institute.

5.5.1 Parts of the portfolio

The portfolio minimally contains the following components:

1. Curriculum vitae:
 - a. Personal data (name, address, registration number, relevant personal data)
 - b. Work experience data (overview of activities as a doctor)
 - c. Training data (training institution, employers, trainers, supervisors, training dates, overview of any exemptions)
2. Individual Development Plan (IDP), with learning objectives for the development as an MDGH, as well as component-specific learning objectives, including an individual training schedule (ITS)
3. Self-reflection reports
4. Documents for the purpose of assessment (evidence); documentation of minimum mandatory assessment of competences (CEX, CATs, assignments, periodic reviews of performance and selective assessments and EPAs)
5. Transfer documents; these are reports from supervisors where the resident has completed parts of the training, addressed to the supervisor where the resident continues his training, with the aim of ensuring continuity and progress of the training
6. Intervention meeting reports

The assessment schedule (Appendix 7) indicates which documentation the portfolio must minimally contain in the various training phases.

5.5.2 Portfolio Responsibilities

Role of the residents

The intention is that the resident finds an optimal way to fill the portfolio himself or herself. The portfolio is the property of the resident; the resident determines who has access to which components. The initiative should lie with the resident in relation to self-development, assessments and other documentation as much as possible, as described in the various chapters of the portfolio. By investing in the portfolio, the resident invests in his or her own progress and development during the training. The resident ensures that at the end of the training, the portfolio contains the minimum number of required documents (see assessment schedule in appendix 8).

The resident must reflect on his or her development. On the one hand, this can be done on the basis of the feedback received (CEX, CAT, 360 degree feedback) and on the other hand, it is necessary for the resident to keep track of which experiences have contributed to the development of the competencies of a particular theme during the training components. These reflections can lead to adjustments in the IDP, which therefore becomes a 'living' document. In any case, the developments completed must be recorded in a reflection report before the start of the Global Health Residency.

Role of the supervisor

The supervisor must motivate adequate portfolio use and, as such, is co-responsible for the portfolio. By using the portfolio as an agenda for progress meetings, a more balanced and versatile picture of the resident can be obtained and adjustments and assessments can be made in a more well-founded manner. In addition, the supervisor is a role model, teacher, monitor of progress and responsible for an adequate training situation for the residents for each competency.

Role of the head of training institute

The head of the training institute is ultimately responsible for the training. The head carries out the final assessment based on the components of the portfolio. He/she also carries out the selective assessment, in consultation with the supervisor of the relevant component. He/she approves the resident's individual development plan (IDP). The head therefore maintains an overview of the resident's progress across all training components.

5.6 Guidance and assessment

Each training component starts with an introductory meeting between the resident and the supervisor. The areas of expertise, competencies and EPAs of the practical period are linked to the personal areas of focus in the resident's competency development. The residents's learning objectives become visible. Training activities are planned, as well as education and selective testing moments. The objective and the instruments to be applied are determined for each test moment. The resident records the agreements made in his/her IDP, which is submitted to the head of the training institute for assessment.

A periodic review of performance is a structured conversation between the supervisor and the resident for the purpose of reflection on the training, in particular in relation to the progress in the resident's development. The interview is related to all training components completed (since the previous periodic review of performance). During the training components, the resident collects all kinds of evidence in the portfolio, confirming the required competencies for granting the EPAs have been achieved, such as Clinical Evaluation Exercise (CEXs), including reports of activities, possibly of 'critical incidents' and documentation of lectures and presentations given. These are 'MDGH-specific' where possible, that is to say relevant to the MDGH training and therefore have a different character than for the training to become a surgeon, paediatrician or gynaecologist. In preparation for the review of performance, the resident assesses his or her own progress (*self-assessment*). The supervisor also completes an assessment in advance. Residents and supervisors do this independently of each other. The supervisor bases this on his or her own impression, information from other members of the supervisors group and other employees, and the portfolio made available for inspection in advance by the trainee. Portfolio and both assessment forms are input for the interview.

The resident, supervisor and head jointly determine to what extent planned training activities have been completed and the set learning objectives have been achieved during the progress interview. This is recorded in the resident's portfolio. The findings and conclusions will lead (if necessary) to new individual learning objectives and/or adjustment of objectives and plans for the training component (notation in IDP). Written reports, containing at least the conclusions of the review of performance, will be included in the portfolio. Granting of the EPAs can be requested at any time by the resident, but usually takes place at the end of a training component, during the selective assessment, by the local supervisor. The head of the training institute is ultimately responsible for granting an EPA and assessing whether a resident is capable of continuing the training. The head consults the supervisor and, if applicable, the members of the supervising group of which the supervisor is a member prior to the selective assessment. The assessment must logically flow from the review of performance. The portfolio is used as an underlying document for the assessment. It is the collection point for all information available about the resident.

The progress of the residents is also monitored during the portfolio discussions with staff of the training institute. During these conversations, progress is discussed, but also the broader well-being of the resident and the experiences in relation to the training in the training institution at that time.

A final assessment will be given at the end of the training. The final assessment is an assessment of whether the resident is suitable and capable of practicing the profession independently and properly as an MDGH after completing the training. The final assessment results in a declaration of completion with which the resident can register in the MDGH register.

5.7 Intensive guidance trajectory, mediation and appeal

The assessment moments can lead to an intensified guidance trajectory. The aim of the trajectory is to initiate an intensive supervision trajectory in case of doubt about the resident's performance, which

will give the resident the opportunity to develop skills, under intensive supervision, in the components (competencies) about which doubt has been expressed and recorded in the portfolio. The trajectory can only be used if the resident, despite formulating additional learning objectives in the portfolio with regard to the intended competencies, has not shown sufficient growth to achieve the required final level at the end of the training component. This must therefore be sufficiently documented in the digital portfolio. If there is no doubt and the resident is unsuitable, an intensified guidance trajectory is not necessary and the training is terminated.

An intensive guidance trajectory may include, among other things, appointing a mentor in consultation with the resident, who will provide the intensive guidance. The duration of an intensive guidance trajectory is a minimum of 3, or a maximum of 6, months. If necessary, the training will be extended by 3 or a maximum of 6 months. This proposal is submitted to the RGS (Registration Committee for Medical Specialists) for approval by the head of the training institute.

It is possible that a difference of opinion or dispute may arise between the resident and the supervisor in the context of an assessment or otherwise. Mediation or an appeal will be arranged internally at the training institute and not at profile level. The essence in case of disputes is that one first tries to mediate (internally). If a resident still does not agree with the supervisor's decision, a dispute can be filed against this decision in accordance with the regulations of the Registration Committee for Medical Specialists (RGS). Notes in the digital portfolio about the various guidance conversations are leading in this regard.

5.8 Individualisation of training duration

The training schedule shows the nominal training duration. However, individual differences between residents can lead to different training schedules. For example, based on demonstrably previously acquired competencies, for example acquired as a resident in Surgery, the EPAs can be granted within a few months. In theory, this means the resident can proceed to the next part of the training earlier than initially planned. As the training does not, unlike many other medical specialist training courses, take place in a single training institution and is also relatively short in duration, this will be difficult to achieve in practice. This does not affect the fact that at each review of performance it should be assessed whether the resident is on track, or whether there is reason to adjust the schedule. The residents and supervisor are supported in this by the digital portfolio, in which the residents' progress compared to the nominal training is clearly displayed.

In addition to the pace at which the training is completed, the emphasis within the training can also differ individually. For example, a resident may wish to distinguish himself or herself in research, education, management, etc. How this can be achieved should always be discussed during the review of performance between residents and supervisors, and agreements made about this should be recorded in the portfolio.

Chapter 6 Quality assurance and teacher professionalisation

6.1 Quality framework

In the Registration Committee for Medical Specialists' (RGS) renewed recognition system (since January 2020), responsibility for monitoring and promoting the quality of medical follow-up training lies with the training institutes, institutions and professionals themselves. One of the central requirements is that a training course has a well-functioning quality cycle at both the organisational and training level. To this end, the MDGH training course has developed its own quality system, which combines the requirements of the "CGS Framework Decision", the specific MDGH decision and the quality framework for cluster 1 set by CGS and the national speciality training curriculum.

Based on the quality framework for cluster 1, the following training actors are distinguished between within the MDGH quality system:

1. Supervisor
2. Supervising group
3. Training institution
4. (Deputy) Head
5. Training Institute (OIGT)
6. Resident

Seven quality domains are also described within the quality framework cluster 1, within which the quality requirements can be grouped per actor. These concern:

1. Vision and quality policy
2. Academic level
3. Education programme
4. Learning environment
5. Testing, assessment and results
6. Staff and teacher professionalisation
7. Management and organisation

6.1.1 Quality cycle

Systematic quality assurance focuses on three concepts: quality determination, quality assurance and quality improvement. These concepts are central to the so-called circle of W.A. Deming, who provides a methodology for achieving systematic quality assurance. The circle describes four activities, namely:

PLAN:	Formulation of the intended result and how and when it is tested whether the intended result has been achieved
DO:	Implementation of the plan
CHECK:	Monitoring and evaluation are used to investigate the extent to which the intended result has been achieved
ACT:	The adjustment phase

Working according to Deming's quality circle results in a continuous, cyclical process and ensures the pursuit of improvement.

6.2. The MDGH Training quality system

The aim of the MDGH training quality system is to systematically collect information and to evaluate and improve the quality of the MDGH training. This is done on the basis of the quality cycle, within which the MDGH training can be divided into 2 cycles:

1. An internal quality cycle: from the MDGH Training Institute
2. An external quality cycle: from the Training Institutions

These two cycles influence each other; the external quality cycle of the training institutes feeds information into the OIGT's internal quality cycle, after which any improvements within the internal quality cycle in turn influence the external quality cycle (see figure 2).

The quality cycles must be completed every 3 years, with improvement plans and projects being drawn up, implemented, checked and evaluated and finally adjusted by the actors involved.

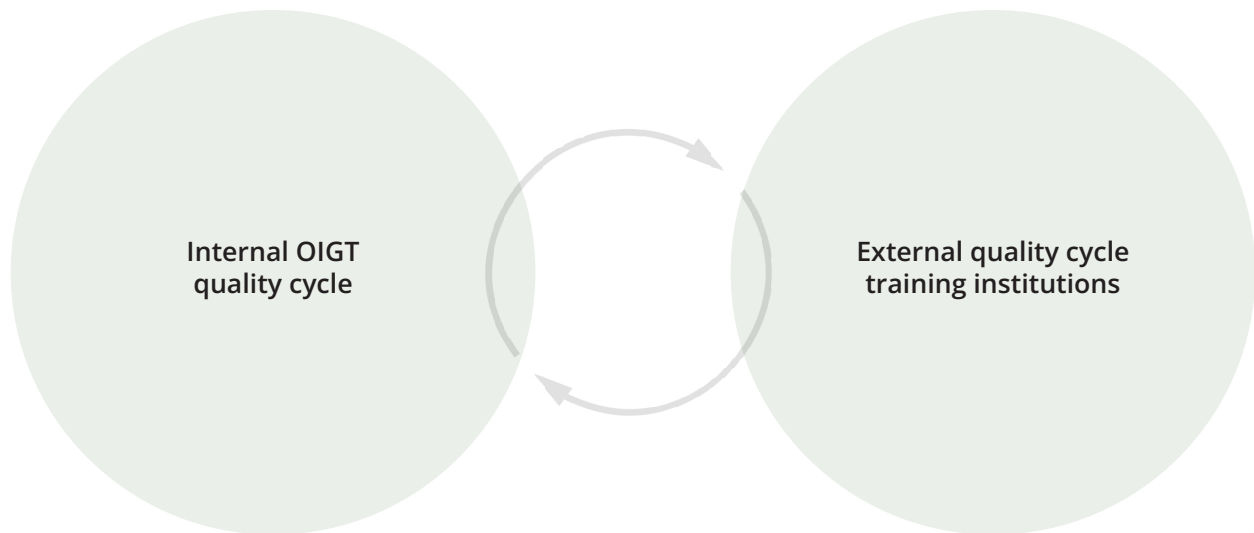


Figure 2: Interaction between the OIGT's internal and external quality cycle

Internal quality cycle:

The internal quality cycle is completed once every 2-3 years and consists of the following steps (see fig 2):

1. Data collection: in this phase the training institute collects information and data required to conduct a self-evaluation and reflection. This information is partly derived from the external quality cycle.
2. During the OIGT self-assessment and reflection, the current state of affairs is analysed and reflected on per domain using further subdomains and indicators. Areas for improvement are identified.
3. Audit by quality committee: the quality committee carries out an audit to assess the quality within the OIGT and writes an audit report on this. Advice is given on areas for improvement.
4. Quality report: The OIGT draws up a quality report with clear points for improvement and projects with regard to the quality of the training.
5. Initiation of improvement projects through a PDCA cycle.

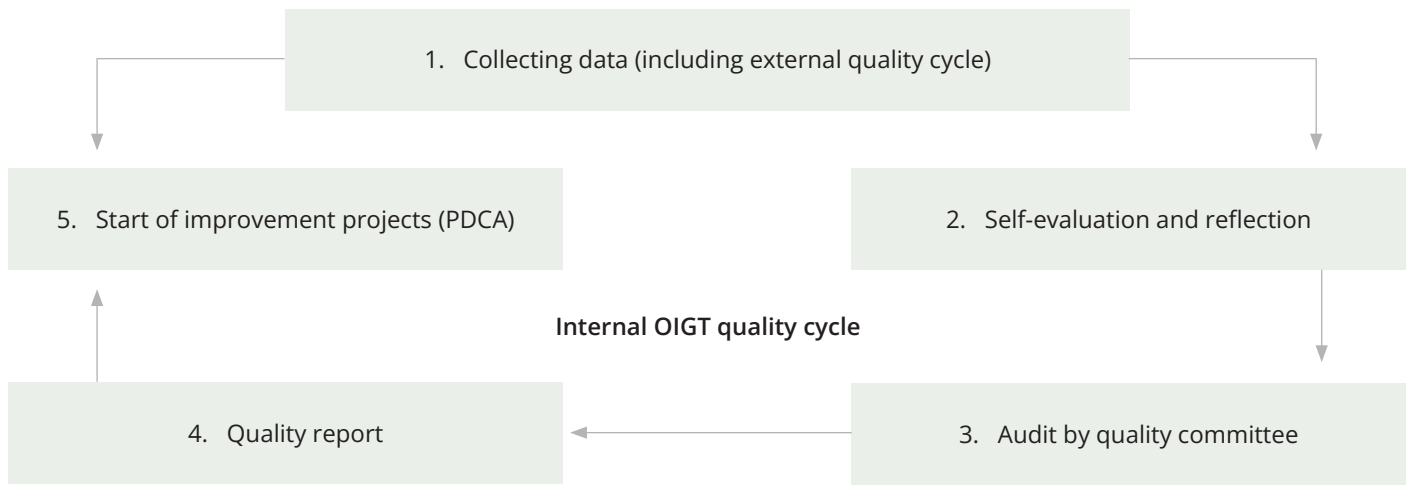


Fig 3. The OIGT Internal Quality Cycle

External quality cycle:

The OIGT oversees the external quality cycle of the training institutions during the clinical components.

The starting point is that every training institution has its own quality cycle, which must be completed every 2-3 years. To this end, the institutions submit a quality report to the OIGT. Improvement points and projects are clearly reported in this, after which a PDCA cycle is started for this. Evaluation visits to the institutions by the OIGT are generally carried out once every 5 years, but can take place more often if deemed necessary. This is called regular monitoring. Since 2024, training institutions which do not have recognised in-house medical specialist training for the clinical components (Surgery, Paediatrics or Gynaecology & Obstetrics), or where a new initial recognition is involved, will also be inspected by the OIGT. This happens according to the schedule as shown in the table below.

What	Other Medical Specialist training available?	Instruments	Frequency
Regular monitoring at training institutions and trainers with recognition for MDGH training	Yes	Quality report Evaluation visit	1 x every 2 - 3 years 1x every 5 years
	No	Quality report Visit by OIGT	1 x every 2 - 3 years 1x every 5 years
New training institutions	Yes & No	Visit by OIGT Evaluation visit	Upon recognition 1 year after the resident's start, thereafter quality reports + evaluation visits according to regular monitoring.

OIGT Quality Committee

The OIGT Quality Committee has an advisory role to the OIGT regarding quality within the MDGH training. Based on the audit which forms part of the quality system, they advise on the current quality within the training, areas for improvement and projects. The committee also meets annually to evaluate quality, assessing and evaluating ongoing processes. The quality committee minimally consists of:

- CIGT representation
- Gynaecology supervisor
- Surgical supervisor
- Paediatrics supervisor
- Resident
- Head and/or deputy head

To guarantee quality, there is an instrument available for each of the aspects. The MDGH training institute works closely with the CIGT and the NSGH Scientific Council.

6.3 Teacher Professionalisation

The MDGH supervisor is a supervisor who preferably completed the tropical medicine training (before 2014), or the MDGH training and ideally is still an MDGH. The trainer should minimally have acquired experience with working in environments which are characteristic of the MDGH. The supervisor is intrinsically motivated to train the residents and creates a training climate within the work situation which enables the MDGH resident to successfully complete the training. The supervisor actively participates with the biannual supervisors meetings, where experiences are exchanged and specific training topics are discussed.

Didactic skills are essential for training residents. These skills must be present in the entire supervisors group. The group is responsible for ensuring a high-quality, transparent and safe training climate. The realisation of this training climate must be facilitated by the training institution. All members of the supervision group have sufficient knowledge, skills and behaviour to guarantee this training climate. They should also be trained in modern teaching skills and the use of assessment instruments. In the Netherlands, residents are trained and supervised by supervisors who are recognised in accordance with the rules of the 'CGS Framework Decision' and the MDGH Decision. The training is in line with decisions made by the CGS regarding the supervisors' desired competencies and working methods.

The supervisors for the training's first two clinical components are part of departments which also train other specialists (training as a paediatrician, surgeon and gynaecologist). The requirements set by these training courses ensure the training groups are well equipped to train residents. There are large overlaps in acquiring competencies for the MDGH training, but of course there are also other and/or additional ones. The supervisors are offered specific MDGH training by OIGT, NSGH and KCGH for this purpose.

For each course component and for the course-specific education, it will have to be determined to what extent existing training opportunities can be used and which additional training activities should be organised. You can choose from (often existing) multidisciplinary courses (e.g. Teach the Teacher courses). This training should minimally focus on:

- Giving and receiving feedback
- Theory of learning and assessment in the workplace
- Setting up education in the workplace

Supervisors must also master formative assessment tools. Supervisors are therefore expected to be trained in working with a portfolio and conducting review of performance and assessment interviews.

In addition, teacher professionalisation activities have been developed for MDGH supervisors, in collaboration with the Netherlands Society for Global Health. Attention is devoted to the integration of MDGH-specific competencies in the training. This MDGH-specific teacher professionalisation will always take place during the biannual trainer meetings.

Supervisor evaluations take place as part of the training institutions evaluations. An instrument developed for this purpose, based on D-rect, is used for this purpose. These evaluations form part of the training's quality cycle. The supervisor can identify areas for improvement in the context of his/her teacher professionalisation from these evaluations.

Appendix 1 Abbreviations and Glossary

APLS	Advanced Paediatric Life Support
ATLS	Advanced Trauma Life Support
CanMEDS	Canadian Medical Education Directions for Specialists
CAT	Critical Appraised Topic: A presentation summarising an answer to a well-defined clinical question, based on literature research, according to a fixed procedure
CBE	Competency-based education
CCPH-HE	Core Course in Public Health and Health Equity
CGS	College of medical specialities
Competence	The ability to adequately perform a professional activity in a specific, authentic context through the integrated presence of knowledge, insights, skills, attitude, personal characteristics/properties
Component	A part of the training which takes place in a training institution
Coursework	Structured education in the form of a course, in addition to practical learning
DGHS	Dutch Global Health Strategy
D-rect	Dutch Residency Educational Climate Test
EPA	Entrustable Professional Activity
Essential and Emergency Surgical Care	Interventions specific to certain situations to prevent premature death and health damage
ETAT	Emergency Triage Assessment and Treatment
Evidence-based medicine	The explicit, judicious and conscientious use of the best available evidence in making a patient's treatment choice. All this given the state of (medical) science at that time
Final assessment	An assessment of whether the resident is suitable and is deemed capable of independently and properly performing the task package/work area for which he/she has been trained after completing the training
Final terms	Description of the knowledge, insight, skills and professional attitude which the resident should have at the end of the training
Formative assessments	Formative, development-oriented tests. The resident receives feedback which enables him/her/them to better manage his/her own development. Formative assessments have a diagnostic function

KCGH	Knowledge Centre Global Health
GHR	Global Health Residency
Global Health	See Table I 'Comparison of Global, International and Public Health' below
Public health	See table 'Comparison of Global, International and Public Health' below
IHA	Integrated Healthcare Agreement
MDGH resident	Doctor in training to become a MD Global Health and Tropical Medicine
CIGT	Concilium International Health and Tropical Medicine
MDGH	Medical Doctor Global Health
OIGT	Training Institute International Healthcare and Tropical Medicine
International Health	See Table I 'Comparison of Global, International and Public Health' below
IDP	Individual Development Plan
Level of proficiency	Gradation in development towards functioning as an independent MDGH
Resident	Doctor in training to become a specialist, including the MDGH Resident
NCD	Non-Communicable Diseases
NGO	Non-governmental organisation
NLS	Neonatal Life Support
NSGH	Netherlands Society of Global Health (new name for Dutch Society for Tropical Medicine and International Health)
OSATS	Objective Structured Assessment of Technical Skills: A formative assessment tool with which the resident is assessed on important aspects of a technical (surgical) skill within a short period of time
Planetary Health	A solution-focused, transdisciplinary field and social movement which focuses on analysing and addressing the consequences of human disruptions to earth's natural systems for human health and all life on earth
Pocus	Point of Care Ultrasound
Portfolio	A collection of documents maintained by the resident, in which the resident's progress in training is systematically documented
Periodic review of performance	An assessment of the progress or status of the resident's competency development

Public healthcare	Public Health Act: Health protection and health promotion measures for the population, or specific groups thereof, including the prevention and early detection of diseases
RGS	Registration Committee for Medical Specialists
SDG	Sustainable Development Goals
Selective assessment	In the selective assessment, the training programme provides a final assessment of the resident's performance, based on a competency score and portfolio.
CEX	Clinical Evaluation Exercise: Instrument to provide structured feedback on an observed practical task performed by the resident
Summative assessments	A summative assessment is intended to collect data on whether the resident actually masters his or her competencies at the intended level.
The NSGH's Code of Conduct	A normative framework for all health workers involved in health and healthcare activities, especially in countries characterised by a scarcity of knowledge, human resources and resources
Theme	A component in which logically related professional activities or professional situations are clustered
Supervisor	A medical specialist recognised by the RGS for the training under whose responsibility part of the training takes place
Training institution	An institution recognised by the RGS, where part of the training takes place
Speciality training curriculum	A plan drawn up by the association concerned and approved by the CGS, which contains the structure and content of the MDGH training
TROIE	Association for MD Global Healths Residents

	Global Health	International Health	Public Health
Geographical reach	Focuses on issues that directly or indirectly affect health but that can transcend national boundaries	Focuses on health issues of countries other than one's own, especially those of low-income and middle-income	Focuses on issues that affect the health of the population of a particular community or country
Level of cooperation	Development and implementation of solutions often requires global cooperation	Development and implementation of solutions usually requires binational cooperation	Development and implementation of solutions does not usually require global cooperation
Individuals or populations	Embraces both prevention in populations and clinical care of individuals	Embraces both prevention in populations and clinical care of individuals	Mainly focuses on prevention programmes for populations
Access to health	Health equity among nations and for all people is a major objective	Seeks to help people of other nations	Health equity within a nation or community is a major objective
Range of disciplines	Highly interdisciplinary and multidisciplinary within and beyond health sciences	Embraces a few disciplines but has not emphasized multidisciplinary	Encourages multidisciplinary approaches, particularly within health sciences and with social sciences

Table 1: Comparison of Global, International and Public Health ⁷

⁷ Kaplan J. et al. Lancet 2009;373:1993–957

Appendix 2 Specific competences

Medical Expert

<p>Patient care</p> <p>Public healthcare</p>	<ul style="list-style-type: none">• The MDGH has knowledge of general and specific aspects of disease, health and public health which occur in the modern, highly globalising and international society, whereby the MDGH applies this knowledge of global healthcare both within and outside of the Netherlands.• The MDGH studies and performs medical procedures in acute, chronic, mental, palliative and rehabilitative healthcare, within the local context and culture, and collaborates with other local organisations which specialise in this.• The MDGH is aware of, and acts on, the most common conditions both in a geographical context (country or region) and among specific target groups (such as minorities, refugees, migrants, specific gender groups, travellers, groups with reduced health literacy or other groups at additional risk of poor health outcomes).• The MDGH is aware of the epidemiology of these most common diseases in general (' <i>disease burden</i> ') and studies the local epidemiology in the area where he/she/they work.• The MDGH is familiar with, and acts according to, the (social) determinants of illness of the individual patient.• The MDGH is able to make medically sound decisions in various contexts using minimal resources and diagnostics, through clinical reasoning.• The MDGH is aware of the principles of remote care and other digital developments and makes appropriate use of these.• The MDGH assesses (public) health developments which affect health at an individual or population level and initiates interventions.• The MDGH initiates, implements and evaluates prevention programmes which are implemented within the public health framework.• The MDGH makes a considered choice when using different methods, aimed at preventing or the early detection of diseases and abnormalities and influencing the healthcare system.• The MDGH integrates relevant information at individual and collective level into solicited and unsolicited proposals for strategic, tactical and operational policy.• The MDGH provides requested and unsolicited effective and ethically responsible care at individual and population level, even when the interests at the different levels are at odds with each other.• The MDGH integrates relevant information at individual and collective level into solicited and unsolicited proposals for strategic, tactical and operational policy.• The MDGH provides requested and unsolicited effective and ethically responsible care at individual and population level, even when the interests at the different levels are at odds with each other.
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Communicator

<p>Patient care</p> <p>Public healthcare</p>	<ul style="list-style-type: none">• The MDGH is able to adequately communicate with patients, clients and target groups and is skilled in reporting on this.• The MDGH has adequate communication skills to shape and explain policy.• The MDGH has adequate knowledge of communicating with patients and colleagues from diverse socio-cultural backgrounds.• The MDGH is aware of his/her/their own cultural frameworks and is able to bridge differences.• The MDGH adopts an open-minded attitude and actively combats stigma, discrimination and racism against patients and healthcare providers.• The MDGH has adequate skills to find the right and appropriate channels (social, religious, economic) to effectively communicate with certain groups in the society where he/she/they works, including groups with limited participation in Dutch and/or other societies and groups with reduced health literacy.• The MDGH effectively communicates with local and national authorities.• The MDGH is familiar with, and uses, modern communication tools and social media, as applicable and in a responsible ethical manner.• The MDGH builds effective relationships with clients or patients and has adequate interaction with interest groups in society.
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Collaborator

<p>Patient care</p> <p>Public healthcare</p>	<ul style="list-style-type: none">• The MDGH requests advice from, or appropriately refers to, relevant healthcare providers, welfare institutions or other bodies which are able to address specific problems and is able to adequately communicate at all levels, both intramural and transmural.• The MDGH adequately collaborates and communicates with healthcare providers and experts within the care chain, in order to optimise patient care and ensure positive health outcomes.• The MDGH is able to adequately collaborate with experts from other sectors and participates in local, national and/or international networks and organisations, as well as in political and social discussions in the field.• The MDGH respects working relationships with colleagues and other health professionals and takes cultural differences and locally applicable views regarding health into account.• The MDGH constructively deals with conflict situations and demonstrates an anticipatory attitude to prevent problems and bridge cultural differences.• The MDGH seeks collaboration with employees throughout the healthcare system, including informal healthcare.• The MDGH respects the social relationships which exist within the communities, without acting in conflict with the rights of the individual person.• The MDGH takes appropriate action in the event of incidents and provides appropriate advice to governments and stakeholders regarding health protection in response to situations with increased health risks.
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Patient care

- The MDGH has a good overview of developments in global healthcare, in the areas of practice, research and policy.
- The MDGH works according to the principles of *evidence-based medicine* and *evidence-based implementation* in both diagnosis and therapy and implementation.
- The MDGH can assess and use national and international guidelines and scientific *evidence* within the field, integrated with their own clinical experience and tailored to the situation of the individual patient within a specific context.
- The MDGH recognises shortcomings in medical practice and public healthcare and stimulates scientific research in collaboration with national and international partners, taking ethical principles for research in global healthcare into account.
- The MDGH can, in collaboration with local partners, formulate and answer context-relevant research questions through scientific research.
- The MDGH publishes in collaboration with local partners and in compliance with the principles of equality.
- The MDGH promotes the expertise of students, residents, colleagues, patients, clients and other stakeholders in healthcare.
- The MDGH transfers knowledge regarding international and intercultural healthcare to colleagues and students.
- The MDGH can formulate learning objectives, request feedback and respond appropriately through individual and/or joint learning activities.
- The MDGH uses electronic information sources for its own competencies.
- The MDGH has adequate knowledge of the state of medical science in *Global Health* and can, if required, collect information for specific international health issues.
- The MDGH applies its knowledge of local determinants of health and of the epidemiology of diseases, including epidemiological transition, to anticipate the effects of international developments for the Netherlands ('pandemic preparedness').

Public healthcare

Health advocate

Patient care

- The MDGH is aware of socio-economic and other specific health inequalities and applies relevant interventions to promote inclusion and social justice.
- The MDGH is aware of the relationship between nature and health ('planetary health') and uses this knowledge in both patient care and public healthcare,
- The MDGH investigates and understands causes of reduced access to healthcare and effectively applies *evidence-based* interventions to improve access to care for all groups.
- The MDGH connects intramural and extramural care.
- The MDGH links preventive interventions to medical action.
- The MDGH is aware of cultural differences in approach, experience and understanding of health and healthcare and acts accordingly and can adequately respond to specific requirements.
- The MDGH promotes health among the general population through collective prevention in a multidisciplinary context.
- The MDGH follows integral guidelines of (inter)national programmes and develops and stimulates their use as part of *evidence-based* practices, and also to combat threats to public health (HIV, TB, new pandemics, etc.)
- The MDGH is aware of the impact of climate change on health(care) and vice versa and applies interventions to combat climate change from a healthcare perspective and to minimise the impact of climate change on public health.
- The MDGH has adequate knowledge of international legislation and regulations relating to health, in particular the WHO's *International Health Regulations* .
- The MDGH records, collects and analyses (gender-disaggregated) data on the health status and determinants of the population in the field for which he/she is responsible.
- The MDGH is familiar with the mechanisms for advocacy and acts as an advocate towards the public and institutions to promote integrated healthcare.

Public healthcare

Leader

<p>Patient care</p> <p>Public healthcare</p>	<ul style="list-style-type: none">• The MDGH organises its work in a balance between patient care, public healthcare and personal development.• The MDGH actively participates in, or leads, a (multidisciplinary) team and applies organisational and management principles in a targeted manner.• The MDGH uses medical, ethical and moral arguments to make decisions about the distribution of resources and whether or not to use medical interventions, and can justify his/her choices.• The MDGH contributes to ensuring sufficient and competent professionals.• The MDGH has knowledge of, and actively participates with, quality assurance and improvement procedures.• The MDGH has knowledge of national and international health systems, including the possibilities within them, and contributes to sustainable improvements of health systems and system strengthening.• The MDGH contributes to effective intra- and interdisciplinary cooperation and sets priorities with regard to consultations based on actual needs in healthcare and contributions to health protection and promotion.• The MDGH participates with relevant networks and organisations, as well as in political and social discussions about his/her/their field of expertise and work area.
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Professional

<p>Patient care</p> <p>Public healthcare</p>	<ul style="list-style-type: none">• The MDGH recognises local, national and international standards regarding qualitatively adequate practices in healthcare.• The MDGH respects the local context in which it works in relation to local standards and values, and with respect for the local population.• The MDGH respects international human rights and acts in accordance with ethical principles applicable in the Netherlands and in the country where he/she/they works.• The MDGH is reflective about his/her/their actions and displays appropriate personal and interpersonal professional behaviour.• The MDGH knows the limits of his/her own competences and acts within them.• The MDGH develops and maintains personal training and further speciality training.• The MDGH practices medicine in accordance with the profession's usual ethical standards. He/she/they demonstrates professional behaviour and responds to unprofessional behaviour of himself/herself and others, taking local and national regulations into account.• The MDGH adequately acts in healthcare and recognises his/her/their own mistakes and those of others, makes these discussable and manageable in order to learn from them, or to adjust policies to prevent recurrence.
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Appendix 3 EPAs

EPA 1

Title	Provides general peri- and operative surgical care ⁸
Specifications and limitations	<p>The resident provides general peri- and operative surgical care</p> <p>Limits: This concerns situations where limited resources are available and no highly specialised care is available.</p>

<p>Knowledge Skills Behaviour</p>	<p>Skills The residents:</p> <ul style="list-style-type: none"> • can make the correct indication based on clinical reasoning • can, based on indications and local possibilities, draw up a treatment plan together with the patient and family ('shared decision-making') based on known guidelines and evidence • considers, on medical and ethical grounds, where necessary, whether or not treatment is feasible and responsible • conducts the informed consent interview in a professional manner • knows the requirements (instruments and materials) for the procedure • takes appropriate precautions (preoperative hydration, antibiotics, perioperative pain relief) and anticipates problems • organises and monitors admission, surgery, postoperative management and discharge, whereby agreements with other healthcare professionals are communicated and recorded in the file. This also includes transmural communication (discharge letters, prescriptions, transfers, etc.) • prevents unsafe situations in collaboration with the operating team (time-out procedure and monitoring sterility) • makes correct use of assistance during surgery • provides colleagues with appropriate explanations and supervises them <p>Knowledge The resident has knowledge of:</p> <ul style="list-style-type: none"> • Differential diagnosis based on the most common local and international conditions and associated guidelines <p>Attitude and behaviour The residents:</p> <ul style="list-style-type: none"> • knows his own limits and calls for help in a timely manner when necessary • has a professional approach to patients and fellow healthcare providers and is aware of his/her own cultural and religious background and that of patients, family and colleagues and speaks and acts respectfully and without prejudice • is open to instructions and feedback and can reflect on his/her own attitude, actions and communication • is willing to teach others things. Does this with pleasure and encourages • can effectively transfer knowledge and skills and takes the other person's competence level into account
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⁸ For transactions see appendix 4

Progress evaluation and summative assessment	CEX, OSATS, CAT 360 degree feedback
Phase when a certain level 4 must be reached	Variant with Surgery: level 4 after Residency general surgery Variant with Paediatrics: level 2 after Global Health Residency
Expiration	After 3 years, maintain and contextualise during the Global Health Residency

EPA 2

Title	Provides general peri- and operative gynaecological care ⁹
Specifications and limitations	The resident provides peri- and operative gynaecological care Limits: This concerns situations where limited resources are available, so no highly specialised care.
Knowledge Skills Behaviour	Skills The residents: <ul style="list-style-type: none"> • can make the correct indication based on clinical reasoning • can, based on indications and local possibilities, draw up a treatment plan together with the patient and family ('joint decision-making') based on known guidelines and evidence-based • considers, on medical and ethical grounds, where necessary, whether or not treatment is feasible and responsible • conducts the <i>informed consent</i> interview in a professional manner • knows the requirements (instruments and materials) for the procedure • takes appropriate precautions (preoperative hydration, antibiotics, perioperative pain relief) and anticipates problems • organises and monitors admission, surgery, postoperative management and discharge, whereby agreements with other healthcare professionals are communicated and recorded in the file. This also includes transmural communication (discharge letters, prescriptions, transfers, etc.) • prevents unsafe situations in collaboration with the operating team (time-out procedure and sterility monitoring) • makes correct use of assistance during surgery • recognises complications in the postoperative course and acts accordingly • provides colleagues with appropriate explanations and supervises them • can perform a general physical and gynaecological examination • can perform a gynaecological ultrasound (transabdominal and transvaginal)

⁹ For transactions see appendix 4

	<p>Knowledge The resident has knowledge of:</p> <ul style="list-style-type: none"> • Differential diagnosis based on the most common gynaecological conditions and associated guidelines such as: <ul style="list-style-type: none"> • Heavy menstrual bleeding • Uterine myomatosis • Enlarged adnex and torsion adnex • STD/PID/tubal varicose vein abscess • Prolapse • Urinary incontinence • Obstetric fistula • Cervical pathology including assessment of CIN lesion using colposcopy. Knowledge of various treatment methods (cryo, thermoablation, liexcision) • Bartholin's cyst/abscess <p>Attitude and behaviour The residents:</p> <ul style="list-style-type: none"> • knows his own limits and calls for help in a timely manner when necessary • has a professional approach to patients and fellow healthcare providers • is aware of his/her own cultural and religious background and that of patients, family and colleagues and speaks respectfully and without prejudice • is open to instructions and feedback and can reflect on his/her own attitude, actions and communication • is willing to teach others things. Does this with pleasure and encourages • can transfer knowledge and skills well and takes the other person's level of understanding into account • is aware of the costs of different treatment options • is aware of/promotes sustainability in the department and operating room
Progress evaluation and summative assessment	CEX, OSAT, CAT 360 degree feedback NB: choose a topic for the CAT which fits the scope of the MDGH
Stage when level 4 must be reached	<p>Variant with Surgery: level 4 after the Obstetrics & Gynaecology residency</p> <p>Variant with Paediatrics: level 4 after the Obstetrics & Gynaecology residency</p>
Expiration	After 3 years, maintain and contextualise during the Global Health Residency

EPA 3

Title	Provides care after trauma
Specifications and limitations	<p>The resident provides medical care after trauma</p> <p>Limits:</p> <p>This concerns situations where limited resources are available and no highly specialised care is available.</p> <p>For trauma care, see also EPA 4, acutely ill patient</p>
Knowledge Skills Behaviour	<p>Skills</p> <p>The resident</p> <ul style="list-style-type: none"> • pays attention to trauma mechanism and expected injuries, in the local context • can perform and interpret an echo FAST • takes an adequate history and physical examination • determines the urgency and order of treatment and any diagnostics based on ABCDE principles • adequately responds to signs of abuse or risk thereof • ensures appropriate communication with the patient and family about procedure/complications • recognises and adequately treats specific complications <p>Knowledge</p> <p>The resident has knowledge of:</p> <ul style="list-style-type: none"> • wound care: adequate assessment, cleaning and use of available resources in accordance with wound care guidelines • principles of conservative fracture treatment • available local resources and constraints, including referral opportunities • indications and techniques of fracture treatment, including reduction, casting, traction and external fixation <p>Attitude and behaviour</p> <p>The resident:</p> <ul style="list-style-type: none"> • has a professional attitude and cooperates with other healthcare providers
Progress evaluation and summative assessment	CEX, OSAT, CAT 360 degree feedback
Phase when a certain level must be reached	Variant with Surgery: level 4 after Residency general surgery Variant with Paediatrics: level 2 after Global Health Residency
Expiration	After 3 years, maintain and place in context during the Global Health Residency

Title	Conducts triage and provides care for the acutely ill patient
Specifications and limitations	<p>The resident provides triage and medical care in acute situations</p> <p>Limits:</p> <p>This concerns situations where limited resources are available and no highly specialised care is available.</p>
Knowledge Skills Behaviour	<p>Skills</p> <p>The resident</p> <ul style="list-style-type: none"> • communicates appropriate to the patient and his/her family/ caregivers' level of understanding • recognises the vitally endangered patient and implements the correct policy, regardless of the cause • correctly assesses the clinical situation and urgency • provides primary care according to ALS or ATLS principles, depending on the situation; takes charge of the care and adequately and correctly directs the team • can perform and interpret echo FAST • correctly assesses when transition to palliative care is necessary and possible, taking the patient's religious and cultural background into account • is in charge of the treatment process • conducts efficient and correct consultation with nurses • presents the problem and proposal for treatment plan in a compact and coherent manner • consults other specialists if necessary • communicates with the patient/family, appropriate to the patient and his/her family/caregivers' level of understanding • efficiently processes reporting • facilitates adequate information transfer and organises the further treatment policy <p>Knowledge</p> <p>The resident has knowledge of:</p> <ul style="list-style-type: none"> • prioritisation of treatment and diagnosis • local resuscitation guidelines • threatened airway • (tension) pneumothorax • hypovolemic and other forms of shock • imaging such as radiological examination and ultrasound • overview of available local resources and limitations • including referral options <p>Attitude and behaviour</p> <p>The resident:</p> <ul style="list-style-type: none"> • asks for supervision at the right time • takes on the leadership role • enjoys professional collaborations with fellow healthcare providers • thinks and acts with due regard and respect for the patient and his/her family's religious, cultural and individual background and wishes

Progress evaluation and summative assessment	CEX, OSAT 360 degree feedback
Phase when a certain level must be reached	Variant with Surgery: level 4 after Residency general surgery Variant with Paediatrics: level 4 after Global Health Residency
Expiration	After 3 years, maintain and contextualise during the Global Health Residency as previously granted

EPA 5

Title	Conducts triage and provides care for the acutely ill child
Specifications and limitations	The resident independently takes care of an acutely ill and/or vitally endangered child and stabilises him or her Limits: This concerns situations where limited resources are available and no highly specialised care is available.
Knowledge Skills Behaviour	<p>Skills The resident</p> <ul style="list-style-type: none"> • participates with the care team • can perform adequate heat management during care activities • inserts IV • organises additional diagnostics • applies POCUS diagnostics • adequately consults with his/her supervisor • communicates professionally: clearly, culturally sensitive, unbiased and appropriate to the patient, his/her family/caregivers/legal representatives' level of understanding, as well as with other healthcare providers • ensures adequate reporting • organises the further treatment policy <p>Knowledge The resident has knowledge of:</p> <ul style="list-style-type: none"> • APLS and ETAT <p>Attitude and behaviour The resident:</p> <ul style="list-style-type: none"> • knows his own limits and calls for help in a timely manner when necessary • takes on a leadership role • has a professional approach to patients and fellow healthcare providers • is open to instructions and feedback • can effectively transfer knowledge and skills and takes the other person's competence level into account

Progress evaluation and summative assessment	CEX, OSATS, CAT 360 degree feedback
Phase when a certain level 4 must be reached	Variant with Paediatrics: level 4 after Paediatric residency Variant with Surgery: level 2 after the Global Health Residency
Expiration	After 3 years, maintain and contextualise during the Global Health Residency

EPA 6

Title	Pregnancy, childbirth and postnatal period in high risk or complicated cases
Specifications and limitations	The resident supervises high-risk or complicated pregnancies, deliveries and postnatal periods and takes care of the newborn. Limits: No highly specialised care
Knowledge Skills Behaviour	Skills ¹⁰ Pregnancy: The resident <ul style="list-style-type: none"> • can make the correct diagnosis and agree/implement policy in case of pregnancy complications • organises admission and, if necessary, an operation, records appointments and adequately communicates with other healthcare professionals • conducts counselling sessions regarding the mode of delivery after a previous caesarean section and breech presentation, in which the setting is taken into account (striving to avoid a first caesarean section, risks of caesarean section, possibility of caesarean section in an emergency setting, etc.) • conducts the 'informed consent' conversation in a professional manner: clear, culturally sensitive, unbiased and appropriate to the patient, his/her family/legal representatives' level of understanding • recognises 'female genital mutilation' (FGM) and knows how to make it a topic of discussion. Knows what to do (if necessary) during pregnancy and the postnatal period and refer if necessary

¹⁰ For transactions see appendix 4

	<p>Birth</p> <ul style="list-style-type: none"> • sets an indication for vacuum extraction and performs this • indicates an indication for a c-section and performs this • treats postnatal fluxus • performs manual placental removal • applies maneuvers for shoulder dystocia • performs an external version attempt in breech presentation* • diagnoses and repairs 3rd and 4th degree perineal rupture and cervical rupture* • can minimally demonstrate on the phantom the actions of a breech birth, forcipital extraction, multiple births and inversion uteri <p>Postnatal period</p> <ul style="list-style-type: none"> • carries out a focus examination on a woman in labour with fever and agrees on the correct treatment • can provide guidance and advice on aftercare to patients after a complicated pregnancy and/or post delivery <p>Knowledge The resident has knowledge of:</p> <p>Pregnancy</p> <ul style="list-style-type: none"> • indication for, and execution of, an induction/stimulation of labour • pregnancy with a high estimated risk, including multiple pregnancies, placenta previa, pre-existing conditions (such as renal or cardiac abnormalities), pre-existing diabetes, previous (extreme) premature birth, autoimmune conditions, uterine anomaly, obesity • has knowledge of pathology in pregnancy, including gestational hypertension, PE/HELLP syndrome, foetal growth restriction, congenital abnormalities, (threatened) premature birth, diabetes, cholestasis of pregnancy, positional abnormalities, growth abnormalities, abnormal amount of amniotic fluid, possible ruptured membranes, cervical insufficiency, blood group antagonism • care for vulnerable pregnant women with psychosocial or psychiatric problems • female genital mutilation (FGM) <p>Birth</p> <ul style="list-style-type: none"> • pathology during vaginal delivery, including fever during labour, blood loss during labour, suboptimal or abnormal CTG pattern/ cortone pathology, non-progressing labour. • Postnatal period • pathology in the postnatal period, including abnormal blood loss (incl. treatment of placental remnants), infection (such as mastitis and endometriosis and systemic), urinary retention, suspected thromboembolic processes, vulvar haematoma or abscess, pelvic abscess, ovarian vein thrombosis, hypertension, (pre-)eclampsia (incl. (HELLP)
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	<ul style="list-style-type: none"> pathological course of newborn, jaundice, hypoglycaemia and hypothermia anticoagulation following birth <p>Attitude and behaviour</p> <p>The resident:</p> <ul style="list-style-type: none"> is aware of time management and setting priorities when looking after multiple birth-giving women (triage delivery rooms) knows his own limits and asks for supervision at the right time can efficiently transfer care according to the SBAR method takes on the leadership role has a professional approach to patients and fellow healthcare providers is open to instructions and feedback can transfer knowledge and skills and takes the other person's level of competence into account
Progress evaluation and summative assessment	<p>CEX, OSAT, CAT</p> <p>360 degree feedback</p> <p>NB: choose a topic for the CAT which fits the scope of the MDGH</p>
Stage when level 4 must be reached	Level 4 after Obstetrics & Gynaecology residency
Expiration	After 3 years, maintain and contextualise during the Global Health Residency

EPA 7

Title	Provides general surgical care
Specifications and limitations	<p>The resident provides general surgical care</p> <p>Limits: This concerns situations where limited resources are available and no highly specialised care is available.</p>

<p>Knowledge Skills Behaviour</p>	<p>Skills The resident</p> <ul style="list-style-type: none"> • can speak to outpatients, examine them, request additional examinations where possible and, on this basis, make an adequate assessment of the severity of the patient's clinical condition and his/her level of insight/understanding of the disease based on history, a thorough physical examination and, using available resources, draw up a treatment plan • collaborate with and manage healthcare providers to provide appropriate care • taking the determinants of disease and the cultural context when providing care and making decisions into account <p>Knowledge The resident has knowledge of:</p> <ul style="list-style-type: none"> • general basic surgery • local epidemiology • overview of available local resources and limitations, including referral options • organising a remote consultation, e.g. via online consultation <p>Attitude and behaviour The resident:</p> <ul style="list-style-type: none"> • treats patients correctly • works professionally and correctly with fellow healthcare providers • communicates with respect for the patient and his/her family/ caregivers' level of understanding
<p>Progress evaluation and summative assessment</p>	<p>CEX, OSAT, CAT</p> <p>360 degree feedback</p>
<p>Stage when level 4 must be reached</p>	<p>Variant with Surgery: level 4 after General Surgery Residency</p> <p>Variant with Paediatrics: level 2 after the Global Health Residency</p>
<p>Expiration</p>	<p>After 3 years, maintain and place in the right context during the Global Health Residency</p>

EPA 8

<p>Title</p>	<p>Provides general gynaecological care</p>
<p>Specifications and limitations</p>	<p>The resident provides general gynaecological care</p> <p>Limits: This concerns situations where limited resources are available, so no highly specialised care.</p>

<p>Knowledge Skills Behaviour</p>	<p>Skills The resident</p> <ul style="list-style-type: none"> • can assess the severity of the clinical condition with regard to gynaecological conditions • can diagnose gynaecological conditions including pathology related to reproduction using limited resources • can perform a general physical examination • can perform additional gynaecological diagnostics (cervical cytology, biopsy, gynaecological ultrasound) • can collaborate with and manage healthcare providers to provide appropriate care • can estimate the patient's level of understanding • uses communication which is appropriate to the patient and her family/caregivers' level of understanding • recognises FGM, knows how to discuss it and, if necessary, knows who to refer to for treatment <p>Knowledge The resident has knowledge of:</p> <ul style="list-style-type: none"> • basic gynaecology and reproduction • local epidemiology • overview of available local resources and limitations, including referral options • locally prevailing cultural beliefs <p>Attitude and behaviour The resident:</p> <ul style="list-style-type: none"> • takes the determinants of illness and the cultural context into account when providing care and making decisions • enjoys professional collaborations with fellow healthcare providers
<p>Progress evaluation and summative assessment</p>	<p>CEX, OSAT, CAT</p> <p>360 degree feedback</p> <p>NB: choose a topic for CAT which matches the scope of the MDGH</p>
<p>Stage when (Miller) level 4 must be reached</p>	<p>Level 4 after Obstetrics & Gynaecology Residency</p>
<p>Expiration</p>	<p>After 3 years, maintain and contextualise during the Global Health Residency</p>

Title	Provides reproductive healthcare ¹¹
Specifications and limitations	<p>The resident provides guidance to people with care needs in the areas of fertility, contraception, unwanted pregnancy and pathology in early pregnancy</p> <p>Limits: No highly specialised care</p>
<p>Knowledge Skills Behaviour</p>	<p>Skills The resident</p> <ul style="list-style-type: none"> • performs physical examinations and additional examinations (ultrasound) in early pregnancy • performs drug treatment in case of a non-viable pregnancy • performs diagnostics and surgical treatment EUG* • perform aspiration curettage in case of miscarriage or pregnancy remnants* • places IUDs • places implants • performs sterilisation <p>Knowledge The resident has knowledge of:</p> <ul style="list-style-type: none"> • early pregnancy, including diagnosis and treatment in case of abnormal progress (miscarriage, EUG, molar) • various contraceptive options • basic diagnosis and treatment of subfertility • (context specific) care options for unwanted pregnancies <p>Attitude and behaviour The resident:</p> <ul style="list-style-type: none"> • knows his or her own limits and asks for supervision if necessary • has a professional approach to patients and fellow healthcare providers and is aware of his/her own cultural and religious background and that of patients, family and colleagues and speaks and acts respectfully and without prejudice • is open to instructions and feedback and can reflect on his/her own attitude, actions and communication • is willing to teach others things. Does this with pleasure and encourages • can effectively transfer knowledge and skills and takes the other person's competence level into account

¹¹ For transactions see appendix 4

Progress evaluation and summative assessment	CEX, OSAT, CAT 360 degree feedback NB: choose a topic for CAT which matches the scope of the MDGH
Stage when (Miller) level 4 must be reached	Level 4 after Obstetrics & Gynaecology Residency
Expiration	After 3 years, maintain and contextualise during the Global Health Residency

EPA 10

Title	Provides general paediatric care
Specifications and limitations	The resident provides general paediatric care Limits: This concerns situations where limited resources are available and no highly specialised care is available.
Knowledge Skills Behaviour	Skills The resident <ul style="list-style-type: none"> • can perform an adequate (hetero) anamnesis and physical examination, using good clinical reasoning • can justify medically and ethically correct choices about whether or not to treat • communicates professionally: clearly, culturally sensitive, unbiased and appropriate to the patient, his/her family/caregivers/legal representatives' level of understanding, as well as with other healthcare providers • has an eye for the use of complementary care • can efficiently request additional research and, if possible, perform POCUS diagnostics him or herself • can carefully maintain status and use the data for EBM if necessary (for example during a clinical audit) • can guarantee good quality of care; develop and implement protocols • can organise efficient and appropriate clinical care and collaborate with multidisciplinary professionals • can provide preventive and curative care, with knowledge of the determinants of health and local epidemiology • can make follow-up appointments (intramural and transmural) • can provide good education to fellow healthcare providers/ students on general paediatric topics • demonstrates that he or she can adequately transfer and teach knowledge to others • tries to make healthcare processes more sustainable and 'greener'

	<p>Knowledge The resident has knowledge of:</p> <ul style="list-style-type: none"> • various disease patterns which can occur in children, with important preventive and therapeutic solutions • antibiotic stewardship • knows the basic principles of <i>health equity</i> and social justice <p>Attitude and behaviour The resident:</p> <ul style="list-style-type: none"> • is aware of time management and setting priorities when dealing with multiple sick children • actively devotes attention to quality control and assurance • has a professional approach to sick children, legal representatives and other healthcare providers and is aware of his or her own cultural frameworks • recognises his or her own limitations and asks for supervision in time • is open to instructions and feedback and can reflect on his/her own attitude, actions and communication
Progress evaluation and summative assessment	<p>CEX, OSATS, CAT</p> <p>360 degree feedback</p>
Phase when a certain level 4 must be reached	<p>Variant with Paediatrics: level 4 after Paediatric Residency</p> <p>Variant with Surgery: level 2 after the Global Health Residency</p>
Expiration	<p>After 3 years, maintain and contextualise during the Global Health Residency</p>

EPA 11

Title	Provides neonatal care
Specifications and limitations	<p>The resident can independently receive, stabilise and initiate further treatment for a newborn</p> <p>Limits: This concerns situations where limited resources are available, but high-care is possible</p>

<p>Knowledge Skills Behaviour</p>	<p>Skills The resident</p> <ul style="list-style-type: none"> • can adequately facilitate information transfer from gynaecology • carries out adequate heat management during assessment • performs resuscitation on the newborn neonate • can insert an IV into the newborn neonate • leads team around the assessment • organises additional diagnostics • communicates professionally with parents • adequately consults with the supervisor and with expertise • considers whether treatment is not feasible or responsible on medical and ethical grounds, where necessary • can apply protocols and PSA • can submit and discuss a Patient Care Incident Report <p>Knowledge The resident has knowledge of:</p> <ul style="list-style-type: none"> • resuscitation guidelines and the neonatal life support flowchart, HBB • the most common diseases and other potential (transition) problems in the assessment of the newborn • how an umbilical line is inserted • the 'first 1000 days' • knows the techniques of debriefing and aftercare of those involved in the team <p>Attitude and behaviour The resident:</p> <ul style="list-style-type: none"> • recognises his or her own limitations and can request supervision in time • invites parent and child participation • openly and actively communicates about complications and incidents in the care of the sick newborn • adequately communicates with primary care obstetricians in high-risk pregnant women • takes a leadership role and demonstrates the ability to transfer and teach skills and knowledge
<p>Progress evaluation and summative assessment</p>	<p>'Sectional certificate'</p> <p>Successfully completed <i>Neonatal Life Support (NLS)</i> scenario training with direct supervision from an NLS instructor</p> <p>CEX: observed care of a threatened child where an intervention was required in accordance with NLS guidelines, with good management and adequate communication</p> <p>CEX: from an NLS scenario</p> <p>CEX: training other physician assistants in <i>Helping Babies Breathe</i></p> <p>OSATS, CAT</p> <p>360 degree feedback</p>

Phase when a certain level 4 must be reached	Variant with Paediatrics: level 4 after Paediatric Residency Variant with Surgery: level 2 after the Global Health Residency
Expiration	After 3 years, maintain and contextualise during the Global Health Residency

EPA 12

Title	Provides care for patients with infectious diseases and/or <i>Non-Communicable Diseases</i> (NCDs)
Specifications and limitations	The resident provides medical care to patients with infectious diseases and/or NCDs Limits: This concerns situations where limited resources are available, so no highly specialised care.
Knowledge Skills Behaviour	Skills The resident <ul style="list-style-type: none"> • can assess the severity of the patient's clinical condition • can estimate whether there is a locally occurring infectious disease based on local epidemiology • can recognise and diagnose disease patterns using limited resources • can collaborate with, and manage, healthcare providers to provide appropriate care with appropriate hospital hygiene • can assess whether isolation of the patient is necessary, based on the working diagnosis • can take the determinants of disease, the cultural and gender-specific context in care provision and considerations into account • uses communication which is appropriate to the patient and his/her family/caregivers' level of understanding • is able to promote the health of individuals through health protection, health promotion and disease prevention • can perform non-trauma-related acute care and resuscitation • can perform an ascites puncture, pleural puncture, lumbar puncture

	<p>Knowledge The resident has knowledge of:</p> <ul style="list-style-type: none"> • principles of (tropical) infectious, including emerging infectious, and non-infectious diseases • NCDs • basic parasitology • principles of responsible use of antibiotics and <i>antibiotic stewardship</i> • anti (retro) viral therapy • diagnostic tests (basal blood, urine, faeces and CSF examination) • knowledge of local guidelines and an insight into prevalent antimicrobial resistance • overview of available local resources and limitations, including referral options • locally prevailing cultural and gender-related beliefs <p>Attitude and behaviour The resident:</p> <ul style="list-style-type: none"> • takes the determinants of illness and the cultural context into account when providing care and making decisions • enjoys professional collaborations with fellow healthcare providers
Progress evaluation and summative assessment	CEX, CAT, assignment 360 degree feedback
Stage when level 4 must be reached	Level 4 end of Foreign section
Expiration	After 1 year

EPA 13

Title	Provides care for a chronic patient
Specifications and limitations	<p>The resident provides medical care to a chronic patient</p> <p>Limits: This concerns situations where limited resources are available, so no highly specialised care.</p>

<p>Knowledge Skills Behaviour</p>	<p>Skills The resident</p> <ul style="list-style-type: none"> • focuses on chronic conditions including NCDs and chronic infectious diseases such as HIV • marks the moment when an illness becomes chronic • treats, monitors and organises care for chronic patients • bases care on (local) standards • provides information aimed at secondary/tertiary prevention • switches to palliative care when necessary • correctly assesses the patient's level of understanding and tailors communication accordingly • stimulates behavioural changes and uses conversation skills aimed at behavioural changes • links prevention and health promotion to medical practice <p>Knowledge The resident has knowledge of:</p> <ul style="list-style-type: none"> • local gender-specific epidemiology • available local resources and constraints, including referral opportunities • (local) standards and guidelines for chronic conditions including NCDs and chronic infectious diseases • local palliative care options • medication adherence, lifestyle advice • conversation skills aimed at behavioural changes <p>Attitude and behaviour The resident:</p> <ul style="list-style-type: none"> • has a professional collaboration with fellow healthcare providers • communicates appropriate to the patient and his/her family/ caregivers' level of understanding and gender
<p>Progress evaluation and summative assessment</p>	<p>CEX, Assignment</p>
<p>Stage when level 4 must be reached</p>	<p>Level 4 after the Global Health Residency</p>
<p>Expiration</p>	<p>After 1 year</p>

EPA 14

<p>Title</p>	<p>Supports healthy pregnancies and normal deliveries</p>
<p>Specifications and limitations</p>	<p>The resident supervises the physiological pregnancy, delivery and postnatal period and takes care of the healthy newborn.</p>

<p>Knowledge Skills Behaviour</p>	<p>Skills*</p> <p>The resident</p> <ul style="list-style-type: none"> • communicates professionally: clearly, culturally sensitive, unbiased and appropriate to the patient, his/her family/legal representatives' level of understanding, as well as with other healthcare providers • can carefully maintain medical records and use the data for quality research if necessary (e.g. clinical audit) • can guarantee quality of care, e.g. developing and implementing protocols • aims to make healthcare processes more sustainable and 'greener' <p>Pregnancy:</p> <p>The resident:</p> <ul style="list-style-type: none"> • performs external examinations of the pregnant woman (position, growth, descent) • can perform a pregnancy ultrasound and assesses: vitality, single or multiple births, position, amniotic fluid, placenta location, biometry (cervical length measurement optional) <p>Delivery ¹² :</p> <p>The resident:</p> <ul style="list-style-type: none"> • supports an uncomplicated delivery • performs vaginal examination of labouring women (Cervix, Dilation, Membranes, Descent, Presentation, position) • can perform and suture an episiotomy • can suture a 1st and 2nd degree perineal tear • checks the foetal condition during labour, using CTG and/or intermittent fetal heart beat listening • checks the progress of labour using a partogram • allows the placenta to be delivered and assesses completeness • provides initial care for newborns including Newborn Life Support (NLS) <p>Postnatal period:</p> <p>The resident:</p> <ul style="list-style-type: none"> • performs maternity checks • inspects the C-section wound or episiotomy wound • advises on breastfeeding based on international guidelines • performs a follow-up check, provides advice for the next pregnancy and discusses contraception • guidance of a healthy newborn, including basic advice on nutrition, care, recognition of warning signs (culture sensitive) <p>Knowledge</p> <p>The resident has knowledge of:</p> <ul style="list-style-type: none"> • physiological pregnancy, childbirth and postnatal period and its management • nutritional advice during pregnancy
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¹¹ For transactions see appendix 4

	<p>Attitude and behaviour</p> <p>The resident:</p> <ul style="list-style-type: none"> • is aware of time management and setting priorities when looking after multiple birth-giving women (triage delivery rooms) • knows his own limits and asks for supervision at the right time • can efficiently transfer care according to the SBAR method • takes on the leadership role • has a professional approach to patients and fellow healthcare providers • is open to instructions and feedback • can transfer knowledge and skills and takes the other person's level of competence into account • Is aware of cultural differences in maternity care
Progress evaluation and summative assessment	<p>CEX, OSAT, CAT</p> <p>360 degree feedback</p> <p>NB: CAT on subject in scope MDGH</p>
Stage when level 4 must be reached	Level 4 after Obstetrics & Gynaecology residency
Expiration	After 3 years, maintain and contextualise during the Global Health Residency

EPA 15

Title	Promotes high-quality care within a healthcare institution
Specifications and limitations	The resident is familiar with basic skills required for daily management in a healthcare institution, applies these and works together to provide high-quality care within the institution and transmurally where relevant.

<p>Knowledge Skills Behaviour</p>	<p>Skills The resident</p> <ul style="list-style-type: none"> • adequately collaborates and communicates with healthcare providers and experts within the care chain, in order to optimise patient care and ensure positive health outcomes. • actively participates with or leads a (multidisciplinary) team and applies organisational and management principles in a targeted manner. • can improve and develop standards, <i>standardised operational procedures</i> (SOPs) and guidelines based on international and national scientific insights and context. • has knowledge of, and actively participates with, quality assurance and improvement procedures (qualitative audit, PDCA cycle). • can make decisions about the distribution of resources and whether or not to use medical interventions through medical, ethical and moral arguments, and can justify his or her choices. • applies intercultural communication skills. • applies time management and logistics skills. • can draw up and explain a (policy) plan • can effectively document and formulate clearly • participates in networks, organisations and discussions relevant to the institution, intra-, trans- and extramural. • is aware of the place and coherence in the chain and contributes to the strengthening of referral systems (to and from other healthcare providers and welfare institutions) and care networks. • can formulate learning objectives, request and provide feedback, organise additional and further training <p>Knowledge The resident has knowledge of:</p> <ul style="list-style-type: none"> • Management and leadership styles • Functions and roles in healthcare, referral systems and chain care. • Healthcare Financing. • Capacity development. • Quality assurance and improvement • Culturally sensitive communication <p>Attitude and behaviour The resident:</p> <ul style="list-style-type: none"> • takes on the leadership role where appropriate to the situation • works professionally with fellow healthcare providers • shows respect for social, gender and cultural diversity • works effectively and attentively with colleagues and employees • has respect for the local context in which work is carried out in relation to local standards and values, and with respect for the local population.
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	<ul style="list-style-type: none"> • is aware of his/her/their own cultural frameworks and is able to bridge differences. • effectively and attentively coaches employees • critically reflects on one's own role as a physician and the role in different contexts (positionality)
Progress evaluation and summative assessment	KBP, CAT, 360 degree feedback, Coursework: CCPH-HE with associated assessment
Stage when level 4 must be reached	Level 4 after the Global Health Residency
Expiration	After 1 year

EPA 16

Title	Promotes accessibility and sustainability of the healthcare system
Specifications and limitations	The resident has knowledge of healthcare systems and system strengthening, applies this and works together to strengthen and improve access to healthcare in a broad sense.
Knowledge Skills Behaviour	<p>Skills The resident:</p> <ul style="list-style-type: none"> • knows the structure of the healthcare system at local, regional and national level. • can make effective decisions when allocating the expenditure of available resources. • applies knowledge of global developments in research and policy • investigates and understands causes of reduced access to healthcare and effectively applies evidence-based interventions to improve access to quality care for all groups. • has knowledge of cultural differences in approach, experience and understanding of health and healthcare and acts accordingly and can appropriately respond to specific requirements. <p>Knowledge The resident has knowledge of:</p> <ul style="list-style-type: none"> • Healthcare systems • healthcare access, inclusion and social justice. • Human and health rights, international health law and regulations. • organising healthcare • Situation and stakeholder analysis, project design and project implementation • Monitoring and evaluating healthcare programmes • <i>Health impact assessment</i> and integrated health policy • International agreements regarding the organisation of healthcare (e.g. WHO, EU)

	<p>Attitude and behaviour</p> <p>The resident:</p> <ul style="list-style-type: none"> professionally works with fellow healthcare providers and other intra- and interdisciplinary stakeholders. effectively communicates with local and national governments. observes international human rights and acts in accordance with ethical principles applicable in the Netherlands and in the country where he/she/they works. adopts an open-minded attitude and actively combats stigma, discrimination and racism against patients and healthcare providers. critically reflects on the role of a physician
Progress evaluation and summative assessment	<p>Curriculum education: CCPH-HE with associated assessment</p> <p>Global Health Exercise</p>
Stage when level 4 must be reached	Level 4 after the Global Health Residency
Expiration	After 1 year

EPA 17

Title	Promotes public and global healthcare
Specifications and limitations	Promotes public health and collaborates to improve (local) public healthcare, including the challenges related to global and climate health

<p>Knowledge Skills Behaviour</p>	<p>Skills The resident:</p> <ul style="list-style-type: none"> • assesses (public) health developments which affect health at individual or population level and initiates interventions. • is aware of the impact of climate change on health(care) and vice versa and is committed to combating climate change from a healthcare perspective and minimising the impact of climate change on public health. • can use context-dependent epidemiological data to provide evidence-based medical practices. • identifies priorities based on <i>Burden of Disease</i> and specific characteristics of socio-cultural, economic and gender-related health inequalities. • can critically assess whether general guidelines and recommendations are applicable to individuals and specific target groups (genetic, social, gender-specific, religious) • can assess situations with increased health risks and act on findings, depending on the context • can, in collaboration with local partners, formulate and answer context-relevant research questions through ethically responsible scientific research. • contributes and collaborates to promote the health of the population through collective prevention and health promotion and with attention devoted to specific socio-cultural, economic and gender-related determinants and social justice. • is able to promote the health of individuals through health protection, health promotion and disease prevention. • links prevention and health promotion to medical practices. <p>Knowledge The resident has knowledge of:</p> <ul style="list-style-type: none"> • Global and Planetary health • Social determinants of care • Quantitative, qualitative and mixed-method research • Local epidemiology • Prevention of infectious diseases and NCDs • <i>Primary healthcare (PHC) and Community Oriented Primary Care (COPC)</i> • <i>Essential Programme on Immunisation (EPI)</i> • <i>Outbreak management</i> • <i>Evidence Based Implementation</i> • Overview of available local resources and limitations, including referral options
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	<ul style="list-style-type: none"> • Influence of ' <i>Lifestyle</i> ' and gender-specific behaviour on diseases and possible 'lifestyle interventions' • <i>Health Literacy</i> • <i>Advocacy</i> • Interventions for prevention of infectious diseases and NCDs which fit within socio-cultural and gender-specific contexts • <i>Mass media</i> and <i>Social Media</i> , including ethical aspects • on locally prevailing cultural and gender-specific views on medical practices and disease epidemiology <p>Attitude and behaviour The resident:</p> <ul style="list-style-type: none"> • takes on the leadership role where appropriate to the situation • works professionally with fellow healthcare providers, local authorities and at national level with the Ministry of Health • works professionally with external consultants
Progress evaluation and summative assessment	CEX, global health exercise
Stage when level 4 must be reached	Level 4 after the Global Health Residency
Expiration	After 1 year

Appendix 4 Surgical and gynaecological procedures

Explanation levels

The competence levels indicated below are the competence levels required at the end of the MDGH training.

The MDGH training uses five levels of competence, namely:

Level	
1	Has knowledge of
2	Acts adequately under strict supervision
3	Acts adequately under limited supervision
4	Acts independently
5	Transfers knowledge and skills and teaches during the procedure

Surgical procedures

The resident knows the principles of the most common surgical procedures from the range of *essential and emergency surgical care* and can ideally perform these at the indicated level after the surgery residency and the Global Health Residency:

Procedure	After Surgery Residency	After Global Health Residency
Basic surgical procedures <ul style="list-style-type: none"> • Wound care management <ul style="list-style-type: none"> • Cleaning 5 • Wound suture 5 • Small advancement flap 4 • Spitskin graft 3- 4 3 • Burns 4 • Foreign body 4 • Cellulitis and abscess drainage 4 • Excision and biopsy 4 • Toe amputation 4 		
Major surgical procedures <ul style="list-style-type: none"> • Assessing and determining surgical indication for acute abdomen 4 • Opening and closing of primary laparotomy (also mini-laparotomy in laparoscopic bowel surgery) 3 • Open correction of uncomplicated inguinal hernia 3 • Creation of a colo/ileostomy 3 • Amputation of the forefoot, lower or upper leg 3 		

Urology: • Treating urinary retention (suprapubic catheter)	2	4
Perioperative care • Resuscitation, access • Preoperative preparation (diet, fluids, antibiotics, anticoagulation) • Operating supplies, positioning • Postoperative policy regarding mobilisation, wound care	3 4 4 4	4 5 5 5
Trauma: • Traction • Cast and splints • External Fixator • Chest drain	3 4 3 4	4 5 4 4

Gynaecological procedures

The resident can perform the most common gynaecological procedures:

Obstetrics and Gynaecology Procedures		
Procedure	After the Obstetrics/ Gynaecology Residency	After Global Health Residency
Obstetrics		
• performing and suture episiotomy	4	5
• suturing 1st and 2nd degree perineal tears	4	5
• suturing 3rd and 4th degree perineal tears	3	4
• suturing cervical rupture	3	4
• manual placenta removal	3	4
• vacuum extraction	4	5
• c-section	3	4
On phantom ¹³ :		
• forceps	4	5
• breech birth	4	5
• multiple births	4	5
• shoulder dystocia	4	5
• inversion of the uterus	4	5

¹³ Due to the rarity of these procedures, it is recommended that residents learn these skills up to level 4 on the phantom (the resident can demonstrate this correctly on the phantom without further instructions). In addition, efforts should be made to achieve the highest possible level of competence in delivery rooms.

<p>Early pregnancy and contraception</p> <ul style="list-style-type: none"> • aspiration curettage • remove placental remnants • surgical treatment EUG • placing IUD • placing implants • sterilisation of women • sterilisation during a c-section 	<p>3</p> <p>3</p> <p>2</p> <p>4</p> <p>3</p> <p>2</p> <p>3</p>	<p>4</p> <p>4</p> <p>4</p> <p>5</p> <p>5</p> <p>3</p> <p>4</p>
<p>Gynaecology</p> <ul style="list-style-type: none"> • Adnexal extirpation • Uterine extirpation • Marsupialisation abscess of Bartholin • Incision and drainage of vulvar abscess • Colposcopy: assessment of CIN abnormality 	<p>2</p> <p>2</p> <p>4</p> <p>4</p> <p>3</p>	<p>3</p> <p>3</p> <p>5</p> <p>5</p> <p>4</p>

Appendix 5 Granting of EPAs per variant

Variant with Surgery

Assessment point	I	II	III	IV
EPA 1	4			
EPA 2		4		
EPA 3	4			
EPA 4	4			
EPA 5				2
EPA 6		4		
EPA 7	4			
EPA 8		4		
EPA 9		4		
EPA 10				2
EPA 11				2
EPA 12				4
EPA 13				4
EPA 14		4		
EPA 15				4
EPA 16				4
EPA 17				4

Variant with Paediatrics

Assessment point	I	II	III	IV
EPA 1				2
EPA 2		4		
EPA 3				2
EPA 4				2
EPA 5	4			
EPA 6		4		
EPA 7				2
EPA 8		4		
EPA 9		4		
EPA 10	4			
EPA 11	4			
EPA 12				4
EPA 13				4
EPA 14		4		
EPA 15				4
EPA 16				4
EPA 17				4

Appendix 6 Linking competencies and EPAs

EPA Competence	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Medical Expert	X	X	X	X	X	X	X	X	X	X	X	X	X			X	
Communicator	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	
Collaborator	X				X	X	X	X		X	X	X	X	X		X	X
Scolar			X	X					X				X		X	X	
Health Advocate														X	X		X
Leader	X	X	X		X	X	X	X						X	X		X
Professional	X	X	X	X					X		X	X			X		X

Appendix 7 CCPH-HE

Core Course in Public Health and Health Equity (CCPH-HE)

At the end of the Core Course in Public Health and Health Equity (CCPH-HE), the MDGH resident will be able to:

1. Identify and analyse the health needs of different groups, paying attention to the underlying determinants and the health system
2. Identify research questions related to public health and assess research methods and outcomes
3. Discuss the principles and processes of designing and implementing community-based public health programmes and interventions which consider policy, data, context, and perspectives on equity and human rights
4. Effectively communicate and collaborate in a multidisciplinary, intersectoral and multicultural environment
5. Critically reflect on oneself for the purpose of continuing professional development, to become an 'agent of change' in public health

Description:

The 'Public Health and Health Equity' course at the KIT Institute prepares students to systematically analyse and address complex public health issues, covering epidemiology, the healthcare system and broader social determinants of health. The course focuses on health equity, both in low-income countries and in affluent settings with disadvantaged populations.

The learning environment at KIT is characterised by a practical approach: the (future) working environment is taken as a starting point and students are challenged to apply acquired knowledge and skills. The lecturers and supervisors come from the field of global healthcare and bring up-to-date knowledge and examples. The students also come from various countries and disciplines, resulting in a lively exchange of experiences/viewpoints/knowledge. The classroom sessions are highly interactive and provide space to view topics from different perspectives.

The CCPH-HE consists of the following modules:

1. Equity and Global Health Concerns (EGHC)

At the end of the Equity and Global Health Concerns (EGHC) module, the MDGH will be able to:

1. Identify key health issues and relevant global public health actors
2. Recognise the determinants of health and their influence on health problems and equality
3. Describe intersectoral response strategies to address health problems and inequalities, including in the areas of infectious diseases, poverty-related diseases and sexual and reproductive health problems
4. Analyse relevant, available data on the social determinants of a health problem, using an analytical framework and to present a literature review in the form of a scientific article

Description:

The factors which have a significant influence on health are known as determinants of health. Most of these determinants lie outside the direct influence of the healthcare system, such as gender, education, culture, employment and living environment. Understanding these factors is important for effectively designing health promotion interventions and for collaborating with other sectors. This understanding is also essential for addressing global threats such as pandemics and climate change.

This block provides participants with an overview of the most relevant health problems which arise in low-resource settings and/or among marginalised groups in different parts of the world. These issues include communicable and non-communicable diseases, maternal and child health, and sexual and reproductive health and rights. In this block, participants will identify key actors in addressing these issues, at local and global levels, as well as (interdisciplinary and intersectoral) strategies to address health problems and inequalities.

2. Learning & Communication Skills and Professional Development (LCS)

At the end of the 'Learning & Communication Skills and Professional Development (LCS)' module, the MDGH resident is able to:

1. Identify, search and correctly cite relevant information sources
2. Effectively communicate in a multicultural context, including giving oral presentations, receiving and giving feedback, and working with people from diverse backgrounds
3. Critically reflect on oneself, to recognise and use different learning styles for academic and personal growth
4. Conduct academic research with integrity and to adhere to the core values of ethical and responsible research
5. Reflect on personal and professional positions regarding the evolution of global healthcare and its colonial past (positionality) and on one's own role in contributing to global healthcare solutions
6. Promote professional networking and effective communication in multidisciplinary, intersectoral and multicultural environments, with a form of collaboration which respects different perspectives

Description:

It is essential for the MDGH to be able to confidently communicate in intercultural, interdisciplinary and global settings. Working on social equality and global health is primarily a team effort. It requires leadership and giving and receiving feedback is important to improve the quality and effectiveness of work.

In this block, participants reflect on personal and professional positions and values (positionality) regarding ongoing developments in global health and their role in addressing global health challenges in their future careers.

3. Research Methods (RM)

The MDGH resident is able to do the following at the end of the 'Research Methods' module:

1. Formulate relevant research questions for a specific context and identify appropriate research methods, taking the complementary role of quantitative and qualitative research in global health into account
2. Recognise and use the fundamental principles of research integrity and research honesty as a starting point for sound research
3. Understand the epidemiological approach, epidemiological and demographic transition and the double burden of disease, as well as to appreciate the importance of disaggregated data to study health inequalities

4. Describe the most commonly used epidemiological terms, perform basic public health statistical analyses, decide when and how to involve a statistician and interpret the results of the most commonly used epidemiological research designs
5. Recognise and critically assess the validity of evidence from different sources (epidemiological research, routine demographic and health data, monitoring and evaluation) and use data to inform public health interventions

Description:

This unit introduces quantitative and qualitative research methods and strengthens skills to critically evaluate information and evidence from a wide range of sources. Basic principles of statistics, epidemiology and research design in public health are discussed. This module also focuses on a socio-cultural perspective on health, illness and healthcare, drawing on medical anthropology and sociology to gain an insight into which population groups have the greatest health needs and why.

4. Health Systems and Policy Making (HSPM)

The MDGH resident will be able to do the following at the end of the 'Health Systems and Policy Making' module:

1. Discuss different strategies and tools to engage and empower communities and thereby contribute to improving healthcare, strengthen the demand side, integrate equity throughout the health system and apply this to specific country contexts
2. Discuss various strategies for strengthening good governance and accountability across the health system
3. Analyse the care model based on priorities, life cycle needs, prevention, with attention devoted to more outpatient and ambulatory care and the innovation and integration of new technologies
4. Discuss various strategies and tools to coordinate services within the health system and across sectors, including coordinating care for individuals, health programmes and healthcare providers
5. Assess various strategies to create an enabling environment for strengthening health systems, including strengthening leadership for change, information systems and knowledge, improving quality and safety, aligning regulations and improving financing and reforming payment systems

In this block, participants will look at people's health needs, the demand for and use of healthcare, as well as the organisation of care. Questions which are addressed include: what are the factors which influence the use of health services and the demand for healthcare? This involves specifically looking at disadvantaged groups. This block focuses on health systems as a whole: actors, functions, goals and boundaries.

An effective health system is essential to achieve universal access to healthcare, one of the key goals of the Sustainable Development Goals (SDGs). Strong and resilient health systems enable countries to respond to changes and threats, such as Ebola and COVID-19, while continuing to deliver essential health services. It is crucial to listen to people and integrate their needs into the healthcare system, so the system can continue to adapt to changing circumstances, even with scarce resources. This block examines the role of the public and private sectors, including non-governmental organisations (NGOs), and the organisation of healthcare across the continuum of care, including health promotion, prevention, diagnosis, treatment, palliative care and rehabilitation.

Appendix 8 Evaluation Scheme

Assessment	1st component				2nd component				Course days	CCPH-CE			Global Health Residency	
	3 months	0.5 year	9 months	12 months	3 months	0.5 year	9 months	12 months		1 months	2 months	3 months	0 months	3 months
CEX	1 ¹	1	1	2	1	1	1	2						3
OSATS	3	3	4	5	3	3	4	5						3
CAT		1		1		1		1						1
360 ° degree feedback			1				1							
Reflection report													1	
Assignment										1			1	
Pre- and post-test									10					
Knowledge test											1			
Periodic review of performance	1	1	1	1	1	1	1	1						1
Selective assessment				1				1						

The numbers represent a minimum number.

Appendix 9 Code of Conduct

Introduction

This Code of Conduct aims to offer a regulatory framework for all residents Global Health and Tropical Medicine, in particular during their Global Health Residency in countries that are typically characterized by a scarcity of resources and manpower. It offers residents principles and guidelines to act responsibly and ethically.

It is the opinion of the OIGT that it is primarily the responsibility of the host countries to stipulate the laws and regulations attaining to (para)medical actions, health interventions or research. Having said this, gaps in legislation, regulation or enforcement of these laws may exist in some countries. Thus, it often comes down to the individual responsibility of the resident active in the field of global health to make sound judgments.

Aims

The OIGT Code of Conduct aims to:

- Promote integrity, responsibility and professional conduct;
- Promote the highest possible standard of practice; and
- Encourage a culture of self-evaluation.

Principles

RESPECT

The resident commits to:

- Look primarily at the interests of the local partners and local population.
- Carry out activities with the consent of the authorized local (medical) authority.
- See local health professionals as equals.
- Acknowledge and respect local laws and regulations, unless these are specifically in conflict with internationally acknowledged human rights or the Dutch medical oath.
- Behave respectfully and not discriminate against patients, colleagues or members of the local population on the basis of their race, opinions, lifestyle, gender, sexual orientation, socio-economic background, origin, religion or beliefs and other markers of identity.

INTEGRITY

The resident commits to:

- Being honest and open in his/her practices.
- Avoiding conflict of interests.
- Handling confidential and sensitive information as such.
- Not abusing anyone physically (i.e. physical violence, sexual aggression or other forms of physical abuse) or psychologically (e.g. bullying, abuse of power, harassment, discrimination or favouritism).
- Not engaging in fraud or theft.

COOPERATION

The resident commits to:

- Acting as an ambassador of the OIGT.
- Ensuring that all interventions and projects implemented are in line with local health needs and explicitly requested or approved of by local senior management.
- Going to great lengths to create conditions to ensure sustainability of projects.

PROFESSIONALISM

The resident commits to:

- Performing medical procedures according to Dutch best-standard practices, taking into account the local possibilities and one's own limitations.