

Healthy ageing from a global perspective

How can healthcare professionals contribute to the prevention of non-communicable diseases by targeted e-health programmes?

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International Programme 2nd year Bachelor students

During a two-week (hybrid) programme, bachelor nursing students will conduct a group assignment, in which preventive interventions from a global perspective will be supported by eHealth approaches and solutions. To be able to come to such an intervention, an analysis of a specific target group must be made, in which determining factors for health risks for a certain non-communicable disease (NCD) is explained. The result will be a targeted eHealth programme to be presented to the client (healthcare organizations or patient groups). The students interview experts in the field and will be supported by lectures, workshops and coaches.

Background

The world needs professionals who are capable of conceiving innovative solutions to unfamiliar situations and complex problems. In doing so, they enrich people as individuals and society in general. In healthcare, the WHO definition of health as complete well-being does no longer fit given the rise of chronic diseases. Machteld Huber (2011) proposed changing the emphasis towards the ability to adapt and self-manage in the face of social, physical, and emotional challenges and this emphasis is adopted by health professionals worldwide (V&VN2020, 2012). Inter-professional working is essential, and therefore release from domain thinking is promoted.

In order of the European Commission, healthcare digitization is an important theme. The eHealth Action Plan 2012-2020, published by the Commission, outlines the current challenges of technological progress in health. The Commission aims to improve the sustainability and effectiveness of healthcare by promoting innovations by putting the patient first. They also stimulate cross-border healthcare by creating the right legislation. In the Digital Single Market strategy, they define three priorities:

- Citizens must have secure access to and use their data across Europe
- Cross-border research infrastructures must be supported to promote health research and personalized medicine
- Communication between patients and caregivers should be facilitated. The patient should be facilitated in how to use their data. The main focus must be on patients with chronic diseases (European Commission, 2012).

These priorities are the fundament for the Ministry of VWS to formulate goals around eHealth. They are aimed at encouraging greater self-reliance, self-management and self-care. Smart ICT applications in healthcare can offer Dutch patients the opportunity to take control of their health.

Especially for people with chronic diseases (Wouters, MA et al., 2019).

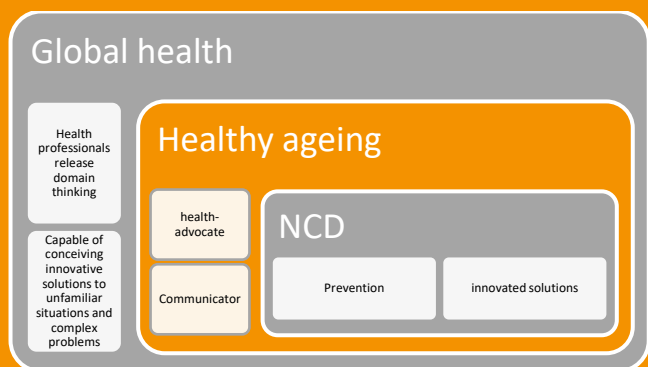
Global perspective

Global health focuses on the applications of international public health to health problems and challenges that affect low- and middle-income countries. Global health places much greater emphasis on health issues that concern many countries or that are affected greatly by transnational determinants, such as climate change or urbanisation.

This greater emphasis on the scope of health problems opens up the opportunity to include cross-border issues as well as domestic health disparities in high-income countries (Merson, 2012). There is agreement about the fact that success and progress in improving health around the world require a multidisciplinary and interdisciplinary approach. Over the past century, we witnessed major improvements in the health of populations. Global health and an improved understanding of how social, behavioural, economic and environmental factors influence the health of populations have contributed to these improvements. Nevertheless, we are facing many challenges in global health (Wilson, Costa Mendes, et 2016). For example, in the field of non-communicable diseases (Sustainable Development Knowledge Platform, 2015).

Non-communicable diseases (NCDs)

NCDs are the leading cause of death worldwide and accounted for more than 63% of all global deaths in 2008. The number of deaths from NCDs is expected to increase globally by 15% between 2010 and 2020 (WHO, 2011). People of all age groups, regions and countries are affected by NCDs. These conditions are often associated with older age groups, but evidence shows that 15 million of all deaths attributed to NCDs occur between the ages of 30 and 69 years. Of these 'premature' deaths, over 80% are estimated to occur in low- and middle-income countries. These diseases are driven by forces that include rapid unplanned urbanization, globalization of unhealthy lifestyles and population ageing. Unhealthy diets and a lack of physical activity may occur in people as raised blood pressure, increased blood glucose, elevated blood lipids and obesity. These are called metabolic risk factors that can lead to cardiovascular disease, the leading NCD in terms of premature deaths (WHO, 2017).



Contribution of nurses

During this International Programme, students will improve their competencies, especially in two nursing (CanMEDS-derived) roles of *health promoter* and *communicator*. These roles are important within the perspective of Global Health

Roles: Core concepts

Core concept's role of health promoter:

1. Analysing the behaviour and environment of care providers related to health problems of care providers and target groups (prevention-oriented analysis);
2. Providing support for achieving a healthy lifestyle to (potential) health issues (promote healthy behaviour) (BN2020, 2016).

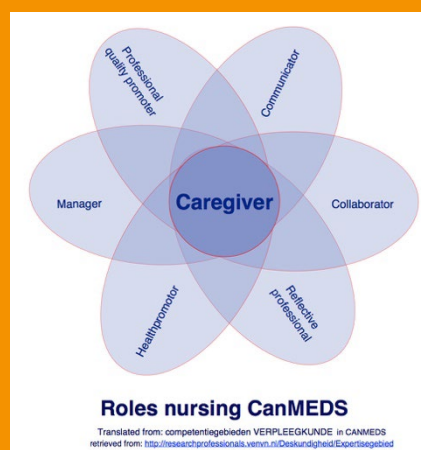
Core concepts of role communicator

1. Using information and communication technology due to societal developments. Providing remote care as a complement to personal care.

objectives to be able to develop innovative, sustainable approaches and solutions. Due to societal developments, providing remote care as a complement to personal care is inescapable and, in that perspective, the use of information and communication technology is inevitable.

Students' group assignments, which are delivered by the professional working field, are all asking for an eHealth solution. In addition to the project work, students will receive a supportive education and a coach. The supportive education will consist of lectures and workshops (for example related to Robotica, practising with Virtual Reality, etc.). The coach is needs-based stand-by throughout the project work. Depending on the status of the COVID-19 situation, lectures and workshops will be given online.

You are welcome to the School of Nursing for participating in this challenging programme!



References

1. European Commission (2017), eHealth Action Plan 2012-2020 - Innovative healthcare for the 21st century, Brussels, 6.12.201 COM (2012) 736 final
2. Huber, M. (2011), How should we define health, *BMJ*, 2011;343:d4163
3. Lambregts, J., Grotendorst, A. & Merwijk, van C. (2016), Bachelor of Nursing 2020 een toekomstbestendig opleidingsprofiel 4.0, Houten.
4. Merson, M.H., Black, R.E., Mills, A.J. (2012), Global Health. Diseases, Programs, Systems and Policies, USA
5. Sustainable Development, Knowledge Platform (2015), retrieved: <https://sustainabledevelopment.un.org/post2015/summit>
6. UNESCO (2014), UNESCO Education Strategy 2014–2021, retrieved: <http://unesdoc.unesco.org/images/0023/002312/231288e.pdf>
7. V&VN 2020 (2012), Deel 3: Verpleegkundig beroepsprofiel, Utrecht retrieved: http://www.venvn.nl/Portals/1/Nieuws/Ouder%20dan%202010/3_profieel%20verpleegkundige_def.pdf
8. WHO (2011), Global status report on non-communicable diseases, Geneva, retrieved: http://apps.who.int/iris/bitstream/10665/44579/1/9789240686458_eng.pdf
9. WHO (2013), Sustaining the drive to overcome the global impact of neglected tropical diseases. Second WHO-report on neglected tropical diseases, Genève, retrieved: http://www.who.int/neglected_diseases/9789241564540/en/
10. WHO (2015), Factsheet Noncommunicable diseases, January 2015, retrieved: <http://www.who.int/mediacentre/factsheets/fs355/en/>
11. Myrah Wouters, MA, Dr. ir. Martine Huygens, Dr. ir. Helene Voogdt, Dr. Maaïke Meurs, Dr. Janke de Groot, Annemarie Lamain, Karlijn de Bruin, MSc, Dr. Anne Brabers, Drs. Conchita Hofstede, Prof. dr. ir. Roland Friele & Dr. Lies van Gennip, Samen aan zet! eHealth-monitor 2019, Dit is een uitgave van Nictiz en het Nivel Den Haag en Utrecht, november 2019 ©Nictiz en het Nivel
12. Lynda Wilson, Isabel Amelia Costa Mendes, Hester Klopper, Cathy Catrambone, Rowaida Al-Maaitah, Mary E. Norton & Martha Hill (2016), Global health' and 'global nursing': proposed definitions from The Global Advisory Panel on the Future of Nursing, JAN 8 March 2016