ROLE OF BIOMEDICAL ENGINEERS IN HEALTH TECHNOLOGY ASSESSMENT

Reiner Banken
Debjani Mueller
Erin Holmes
What is Health Technology Assessment (HTA)?

HTA is “the systematic evaluation of properties, effects, and/or impacts of health technology. It may address the direct, intended consequences of technologies as well as their indirect, unintended consequences. Its main purpose is to inform decision-making in health care technologies “

HTA is conducted by interdisciplinary groups using explicit analytical frameworks drawing from a variety of methods.

INAHTA glossary. International Network of Agencies for Health Technology Assessment and Health Technology Assessment international
Background

• Different scientific disciplines – epidemiology, clinical effectiveness studies, engineering, biomedical sciences, health economics, behavioral sciences among others are an integral part of a robust health technology assessment report.

• HTA, strengthened by its multidisciplinary and the interdisciplinary nature has emerged as an important tool to help policy-makers decide on technologies that need to be funded and that may not be funded.
Purpose

To understand the role of the biomedical engineers in generating health technology assessment reports for medical devices
Methods

A short questionnaire was sent to various stakeholders.

1. Are you aware of biomedical engineers working in HTA agencies or at hospitals contributing to a HTA team?
2. In which area of the assessment process are the engineers involved?
3. Do you have job descriptions of biomedical engineers in these HTA agencies or at hospitals? If yes, please include the description.
4. Are you aware of any specific training or training requirements for biomedical engineers working in HTA? Does a biomedical engineering degree program include a module on HTA? If yes, please mention a few.
Methods

- A large proportion of participants were from public HTA agencies and some are involved in Hospitals and Universities.

- Qualitative data from the responses were analysed to understand the importance and emerging link of this profession to the multidisciplinary team involved in Health Technology Assessment.
Result

• Biomedical engineers currently have no or a minor role to play in the post-market diffusion curve of innovation of medical devices.

• Those Biomedical engineers employed in agencies, with a background in public health or a formal training in health economics had an added advantage.

• Due to the growing complexity of medical devices, biomedical engineers could play a more active role in health technology assessment, thus bridging the gap between research and implementation.
Conclusion

Biomedical engineers can have a specialist or a generalist role in a HTA team.

Their expertise should be part of the interdisciplinary work of HTA directly informing decision-making at different levels in health systems.