

Optimizing sexually transmitted infection care in men who have sex with men

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IMPACT PARAGRAPH

Research

Main objective and results

The main objective of this thesis is to optimize HIV and STI care for men who have sex with men (MSM). In this thesis, we explored barriers and possible solutions for MSM who are not tested for HIV/STI on a regular basis. Our mission is to use the available resources, such as time and money, for sexual healthcare in the most effective way to reach as many MSM as possible and move towards zero new HIV infections and reduction in new STI. Targeted care, fit to the individual needs, combined with self-sampling for HIV/STI can be key factors to reach the people who are currently unaware of their HIV status and thereby reducing the spread of HIV. We developed and implemented a home-care program using self-sampling for HIV/STI for MSM.

Scientific impact

Documentation of developments

In current literature and research, there is a lack of development-processes documentation and of best- and worse-practices for interventions to promote HIV/STI testing. Description of the development and implementation process can be useful for those willing to improve or change current healthcare with implementation of an innovation or a change of current practice. Our description can serve as a guideline for the development and implementation and lessons learned in this thesis can be used to improve other innovation projects.

Therefore, to share such insights, we described in our study the use of intervention mapping to design an intervention to promote self-sampling tests for HIV/STIs and enhance sexual healthcare among MSM. The systematic process and the clear documentation of the development process and pilot testing of our novel home-care program could be very useful to other public health professionals, from STI clinics, HIV hospital clinics, and general practitioner (GP) offices, who are developing healthcare programs. These results will also be valuable to public health professionals who want to use or implement home self-sampling tests for HIV/STI or other diseases.

New insights on oropharyngeal and anorectal CT infections come from the *FemCure* study and the currently ongoing *CHLAMOUR* study both in women, but with results that may also be applicable for MSM. The *FemCure* study demonstrated that spontaneous clearance of oropharyngeal CT is common; of those who did not clear CT, three-quarters had non-viable CT. This finding contributes to the debate on whether the oropharyngeal site should be considered important in CT control efforts. In contrast to what is found in oropharyngeal CT, anorectal CT based on self-taken swabs, as in routine care, frequently presents with viable CT. The *CHLAMOUR* study from our research group will provide insight in the viability of CT at different anatomic locations i.e. the anatomic sites samples by self-collection and the anatomic sites more upward in the body, providing some leads for the validity of self-collection when aiming to detect viable CT.

Social impact

Improved HIV/STI testing for MSM

Men who have sex with men (MSM) are at increased risk of acquiring HIV infections. Despite the presence of several public health and clinical efforts to increase the testing uptake, a number of MSM still remain untested; therefore, several infections remain untreated. To develop and targeted care, it is necessary to explore and understand associated factors with HIV testing behaviour. In this thesis we assessed this at different levels of urbanization in the Netherlands, as urbanization level is known to play a role in healthcare access and healthcare seeking behaviour.

Furthermore, fast testing can lower the burden of disease for infectious diseases. People with later stage HIV infections have a higher risk of progressing to AIDS or death, and have higher direct medical treatment expenditures. Improved testing could be effective in interrupting the transmission-chain, leading to reductions in HIV-incidence. Increased and early testing and treatment will eventually decrease the prevalence of HIV/STI and HIV/STI-related morbidity and mortality among MSM. The studies in this thesis demonstrate the usefulness of self-sampling at home and the importance of gaining insight into the possibilities of home-sampling as addition to regular sexual healthcare.

Care-at-home

With the current ongoing COVID-19 pandemic, care at distance combined with using eHealth technologies is important. Health services globally are struggling to manage the impact of COVID-19. Particularly in light of Covid-19 related disruptions to location-based care, developing and evaluating alternative models of care delivery is important, especially care that can be delivered in the home-setting. Regular public health sexual healthcare which can be provided at distance is an addition to clinic-based regular sexual healthcare. This includes eHealth and home-sampling for HIV/STI tests. This is an effective method to reach important target populations with care and tests. In this thesis development and implementation of such a home-care program is described. Home-sampling tests and care for HIV/STI complies with the needs of the target group, especially those living in less urbanized areas. Furthermore, it has the opportunity to offer care customized in the most effective way. For example, only offering full counselling to those who are in need of face-to-face counselling and offering others a less extensive, but suitable care-traject with eHealth and home-sampling.

Target group

MSM

This thesis is focused on men who have sex with men (MSM) as most new HIV/STI infections occur in this group. The results and conclusion presented in this thesis are of importance for all MSM who are sexual active, have unprotected sex and in need of regular HIV/STI testing. Especially MSM who do not get tested regular, do not feel comfortable visiting STI clinics, or have other barriers towards location-based testing, will benefit from our innovative home-care program, as addition to regular sexual healthcare. Currently, we are further developing the home-care program described in this thesis to make the program available for a broader MSM population.

Healthcare providers

The results of this thesis are relevant for health policy makers, public health professionals from STI clinics, HIV hospital clinics, and general practitioner (GP) offices. It is important to recognise and involve healthcare providers so that interventions and innovations can evolve accordingly and provide adequate and meaningful support. Collaborating and sharing with other HIV/STI care providers would improve sexual healthcare in general and fa-

Facilitates relations and networks with low-threshold knowledge sharing and improved patient management. Policy makers are also a target group, especially regarding their role in designing and implementing guidelines and healthcare programs.

Future

Limburg4Zero

The knowledge gained from the studies described in this thesis forms the base of a new regional project for MSM to move to zero new HIV diagnoses in Limburg. This program, called 'Limburg4zero', aims to develop, implement and evaluate an integrated and regional-focused approach to engage high risk groups in HIV and sexually transmitted infections (STI) testing, treatment, and care. In this project, home-sampling HIV/STI test will be used to increase HIV/STI testing among MSM combined with sexual health care (counseling on safe sex, PrEP, and (early) treatment). To engage MSM, care providers, societal organizations, and Universities collaborate to implement innovative strategies that overcome testing-barriers (e.g. time, stigma)

In the pilot implementation we encountered issues with syphilis diagnosis. Based on experience with home-sampling from our implementation, our research group is currently exploring innovative diagnostics to optimize blood sampling and use of available blood to test for syphilis. In our development and pilot implementation, a strong network between care providers is established. This network enables a logistical infrastructure to enable testing, prevention, and care for MSM and a collaborative infrastructure to enable support/information-exchange between care-providers. Successful elements of our integrated approach will be included in regular HIV/STI care, for a sustainable implementation after the project.