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Exploring the wider societal impacts of sexual health issues and interventions to build a framework for research and policy: a qualitative study based on in-depth semi-structured interviews with experts in OECD member countries

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ABSTRACT

Objectives Sexual health is a complex public health challenge and can generate wide-ranging health, social and economic impacts both within and beyond the health sector (ie, intersectoral costs and benefits). Methods are needed to capture these intersectoral impacts in economic studies to optimally inform policy/decision-making. The objectives of this study were (1) to explore the different intersectoral costs and benefits associated with sexual health issues and interventions, (2) to categorise these into sectors and (3) to develop a preliminary framework to better understand these impacts and to guide future research and policy.

Design A qualitative study based on in-depth semi-structured online interviews.

Setting OECD (Organisation for Economic Co-operation and Development) member countries.

Participants Professionals with expertise in the field of sexual health including clinicians, medical practitioners, sexologists, researchers, professionals working for international governmental or non-governmental health (policy) organisations and professionals involved in implementation and/or evaluation of sexual health interventions/programmes.

Methods Sampling of participants was undertaken purposively. We conducted in-depth semi-structured online interviews to allow for a systemic coverage of key topics and for new ideas to emerge. We applied a Framework approach for thematic data analysis.

Results 28 experts were interviewed. Six themes emerged from the interviews: (1) Interconnections to other areas of health (ie, reproductive health, mental health), (2) Relationships and family, (3) Productivity and labour, (4) Education, (5) Criminal justice/sexual violence, (6) Housing, addiction and other sectors. The findings confirm that sexual health is complex and can generate wide-ranging impacts on other areas of health and other non-health sectors of society.

Conclusion These different sectors need to be considered when evaluating interventions and making policy decisions. The preliminary framework can help guide future research and policy/decision-making. Future research could explore additional sectors not covered in this study and expand the preliminary framework.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ The use of semi-structured, open-ended interviews allowed for a systemic, rigorous and structural coverage of key topics while allowing for a degree of freedom and adaptability in seeking information from the interviewees, and for new ideas and themes to emerge.
⇒ The interviews generated a depth of information by including 28 experts from six different countries and covering a wide range of professional backgrounds.
⇒ There could be additional sectors affected by sexual health issues and interventions that are not covered in this study, suggesting the need for future research to explore such areas.

INTRODUCTION

Sexual health is a complex public health challenge and can generate wide-ranging health, social and economic impacts.[1–4] Public health challenges relating to sexual health include sexually transmitted infections (STIs), HIV/AIDS, sexual violence, coercion and discrimination, sexual dysfunction and unintended pregnancies. With the recent COVID-19 pandemic the wider societal impacts of public health issues became more apparent.[5] This has emphasised the need to look at public health issues and interventions from a wider societal perspective, taking into account the impacts on health and non-health sectors (ie, labour, education). The pandemic also made some of the most prominent health inequalities

even more apparent, and how sexual health is part of these inequalities.[6] For example, the pandemic caused disruptions in the provision of essential sexual health services (ie, access to pre-exposure prophylaxis (PrEP), STI/HIV testing),[7 8] disproportionately affecting certain population groups (ie, people with lower average incomes, young people).[9 10]

Sexual health is a broad concept and defined by the WHO as 'a state of physical, emotional, mental and social well-being related to sexuality'. It acknowledges that sexual health involves a 'positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence'. The WHO's definition is expansive and reflects the complexity of sexual health, recognising and advocating for a more holistic approach to sexual health. For example, the effect of an STI can extend well beyond the acute infection, and people living with an STI are at an increased risk of acquiring other STIs or HIV.[11] STIs can often be asymptomatic, which can result in missed or delayed treatment as well as increased risk of transmission.[12] Beyond the physical health impact sexual health problems are often associated with shame, (self-)stigma and psychological distress, which can have an impact on an individual's relationships and can result in difficulties in a marriage, partnership or with a sexual partner.[13] In contrast, optimal sexual health, sexual functioning, sexual pleasure and intimacy can have a positive impact on relationships and an individual's physical and mental well-being.[14] On a societal level, adverse sexual health outcomes, like other public health consequences, can generate impacts both within and outside the health sector. Those impacts that occur outside the health sector could include costs due to lost work/labour productivity, school absence, housing insecurity and reduced physical, mental or social well-being.[5 15 16] In this paper, we will use the term *intersectoral costs and benefits* to refer to costs and benefits beyond the health sector.[17 18]

Existing evidence suggests that very few economic studies in sexual health adopt a broader perspective in their analyses, and for those that claim to adopt such a perspective the types of costs considered tend to be narrow.[18] Failing to capture relevant intersectoral costs and benefits in economic studies can potentially underestimate the true societal impact of a sexual health issue or intervention and can lead to sub-optimal policy decisions.[17]

The objectives of this study were (1) to explore the different intersectoral costs and benefits associated with sexual health issues and interventions, (2) to categorise these into sectors and (3) to develop a preliminary framework to better understand these intersectoral impacts and to guide future research and policy; using in-depth semi-structured interviews.

METHODS

A qualitative study was conducted based on in-depth semi-structured interviews with experts in Organisation for Economic Co-operation and Development (OECD) member countries.

Sampling and recruitment of participants

Sampling of participants was undertaken purposively based on experts' knowledge and expertise. We distributed email invitations to the study authors' network as well as experts in the area. This was followed by snowball sampling. In this study, we use the term 'experts' to refer to professionals that are knowledgeable in a particular area, in this case in sexual health. Purposive sampling was used to ensure a spread of expertise across different areas and in relation to different roles. The purpose of this study was to develop a framework that could be used to inform evaluation and health policy in OECD member countries and hence we included participants from these countries to ensure comparability of healthcare systems. We included potential participants with diverse expertise, affiliations and experience in the field of sexual health including clinicians, medical practitioners, sexologists, researchers, professionals working for international governmental or non-governmental health (policy) organisations and professionals involved in the implementation and/or evaluation of sexual health interventions. We approached experts via email and invited them to participate in semi-structured, one-to-one online interviews in English with the lead researcher (LS). A participant information leaflet was attached to the email including more detailed information on the purpose and background of the study, voluntary participation in the study, confidentiality and anonymity, duration of the interview and dissemination of study findings. Interviews were conducted until data saturation was reached, meaning when no new insights emerged from additional interviews.[19]

Data collection and analysis

In-depth semi-structured online interviews were conducted to allow for a systemic coverage of key topics and to allow for new ideas and themes to emerge.[20] Online interviews were chosen due to the circumstances relating to the COVID-19 pandemic. The videoconferencing platform Zoom was used to conduct the interviews. We used a topic guide to structure the interviews (see online supplemental appendix 1). The interviewer was a doctoral candidate, and the interviewees were all experts in sexual health. All interviews were audio-recorded, with the participant's consent. Detailed field notes were taken during the interviews to provide further information for analysis. The interviewer (LS) used an interview protocol, containing a set of open-ended questions to discuss potentially relevant wider societal costs and benefits associated with sexual health services or interventions.

We applied the Framework approach as presented by Gale and colleagues for thematic data analysis. It is a widely used approach to manage the qualitative data

derived and allows for systematic analysis, comparison and contrasting of data.[21] All audio-recorded interviews were transcribed verbatim and entered into NVivo V.12 (a software for qualitative data analysis) by one author (LS) (step I). A sample of the transcripts was cross-checked for reliability by a second researcher (LJ). Both authors (LS and LJ) familiarised themselves with a set of the data and repeatedly coded several transcripts independently, identifying emerging themes and subthemes (step II and III). The authors then compared their themes and subthemes and discussed these with all coauthors, resulting in a coding framework (in form of a matrix) that all authors agreed on. Discrepancies were discussed, where needed (step IV). LS applied the established coding framework to the remaining transcripts (step V). A matrix was developed, charting all themes and subthemes, which was discussed with all authors (step VI and VII). LS reviewed, analysed and summarised a set of the coded themes and subthemes, which was again discussed with all authors. We followed the guidance outlined in the Standards for Reporting Qualitative Research (SRQR) for the reporting of the study context, methods and findings (online supplemental appendix 2).

Consent form

All participants that agreed to take part in the interviews signed and returned their written consent to the lead researcher (LS) via email prior to the start of the interview.

Patient and public involvement

None.

RESULTS

Interviews

A total of 28 experts (16 women and 12 men) were interviewed between November 2020 and June 2021. The duration of the interviews ranged between 30 and 60 minutes each.

Participant characteristics

All participants had expertise in the field of sexual health including the provision of clinical sexual health services, or the design, implementation or evaluation of (clinical and non-clinical) sexual health interventions. At the time of the interviews, participants worked in Australia, Canada, The Netherlands, Switzerland, the UK or the USA (table 1). Among those were clinicians or clinical academics (n=8), non-clinical academics or researchers (n=15), programme managers (n=3) and technical advisors (n=2). Many experts were affiliated with a university or research institute (n=16). Others worked at governmental (n=3), non-governmental (n=4) or international policy organisations (n=4). Some participants had training in sexology (n=2), medical anthropology (n=2) or health economics (n=3).

THEMES

The participants in the interviews highlighted the holistic nature of sexual health, which meant that there were a wide range of impacts on other areas of health and different sectors of society. As shown in figure 1, six themes emerged from the interviews: (1) Interconnections to other areas of health, (2) Relationships and family, (3) Productivity and labour, (4) Education, (5) Criminal justice/sexual violence, (6) Housing, addiction and other sectors.

Theme 1: interconnections to other areas of health

When considering the societal impacts of STIs, the holistic nature of sexual health and interconnections to other areas of health became evident. Although not strictly an 'intersectoral' impact, we include this as a theme, as participants felt that it was important to highlight these connections to other areas of health, as they may otherwise be overlooked. The inextricable link between sexual and reproductive health as well as the relationship to mental health was expressed by almost all clinicians repeatedly.

Long-term consequences

When first asked about potential societal impacts of any sexual health aspect, almost all experts instantly described the impact of STIs as being potentially serious, with long-term consequences for the physical and mental health of an affected individual. These long-term consequences included pelvic inflammatory disease (PID), chronic pelvic pain, infertility and adverse pregnancy outcomes.

> Chlamydia is most likely to be asymptomatic in women and yet can have one of the worst sequelae in terms of say tubal infertility, ectopic pregnancy and that sort of thing. That obviously has a huge impact on women and also pelvic inflammatory disease from chlamydia and gonorrhoea can be really devastating, even as an illness when treatment can be offered. (I.2, University/Research Institute, UK)

> You still have people that get ectopic pregnancy or infertility, and this is directly related to chlamydia. I think these are also important things to look at and also PID [pelvic inflammatory disease]. (I.25, Governmental Organisation, The Netherlands)

> About syphilis we know that it can have adverse effects on pregnancy outcomes, and we know that there is significant foetal and natal death every year because of not detecting syphilis. It would be greater than that when it comes to loss or miscarriage. (I.27, Non-governmental Organisation, UK)

The inextricable link between sexual and reproductive health

The majority of experts highlighted the inextricable link between sexual and reproductive health. They expressed the importance of providing more holistic care, which means ensuring that essential services around sexual,

Table 1 Interview sample, roles and affiliations

Role	Affiliation	Country	Male/female	ID
Clinician/clinical academic	Hospital	UK	M	I.1
	University/research institute	UK	F	I.2
	University/research institute	Australia	M	I.3
	University/research institute	The Netherlands	M	I.4
	Non-governmental organisation	The Netherlands	F	I.5
	International policy organisation	Switzerland	M	I.6
	International policy organisation	Switzerland	M	I.7
	International policy organisation	Switzerland	F	I.8
	University/research institute	The Netherlands	M	I.9
	University/research institute	USA	F	I.10
	University/research institute	Australia	F	I.11
	University/research institute	The Netherlands	F	I.12
	University/research institute	USA	F	I.13
	University/research institute	USA	M	I.14
Non-clinical academic/ researcher	University/research institute	USA	F	I.15
	University/research institute	USA	M	I.16
	University/research institute	The Netherlands	F	I.17
	University/research institute	The Netherlands	F	I.18
	University/research institute	USA	M	I.19
	University/research institute	The Netherlands	F	I.20
	University/research institute	Canada	F	I.21
	International policy organisation	Switzerland	M	I.22
	Governmental organisation	UK	F	I.23
Programme manager	Governmental organisation	The Netherlands	F	I.24
	Governmental organisation	The Netherlands	F	I.25
	Non-governmental organisation	The Netherlands	F	I.26
Technical advisors	Non-governmental organisation	UK	M	I.27
	Non-governmental organisation	UK	M	I.28
Total				28

reproductive and potentially other areas of health are addressed.

> When you look at sexual health provision for women that's very much bundled in with reproductive health. […] I've seen this a lot in STI clinics, women who come in for screening but also get a LARC [long-acting reversible contraception] while they are there. Women who talk to you about contraception while they've come in for let's say a pap [smear test]. Even though contraception isn't what we do in

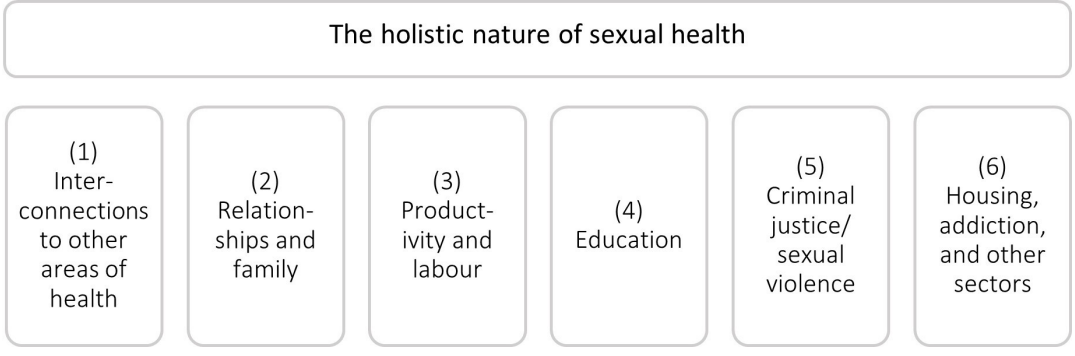

Figure 1 Identified themes

sexual health the two things overlap quite a lot. (I.2, University/Research Institute, UK)

What we try to ensure within our clinics is that we get those essential service areas around contraception, abortion care, issues around HIV, the wider STIs covered, we know that a lot of STIs are not always included. (I.27, Non-governmental Organisation, UK)

Mental health problems relating to sexual health

Alongside those physical, sexual and reproductive health concerns, experts highlighted the serious impacts STIs can have on an individual's mental health and psychological well-being. In particular, syphilis, herpes simplex virus (HSV) and HIV were listed among those causing serious psychological consequences.

Syphilis, I mean goodness, it causes horrible psychological illness and it's a systemic illness, it has a huge impact. (I.2, University/Research Institute, UK)

HSV which is herpes simplex virus is a very common infection and depends on the individuals most of them have minor symptoms some have more severe symptoms. That can be very psychologically damaging. (I.1, Hospital, UK)

I argue there is a mental health cost to living with an HIV infection. (I.23, Government Researcher, UK)

Theme 2: relationships and family

Most participants highlighted the need to think beyond health aspects, and family, friendships and relationships were seen as an important part of this.

Beyond the health sector you want to look at what is my relationship with my family and peers, do I have access to safe shelter, do I have food, do I have a job. (I.28, Non-governmental Organisation, UK)

Several interviews revealed that the use of PrEP was expected to have additional non-health benefits, in particular, for people's relationships with partners and peers. Similarly partner notification interventions were perceived to have a positive impact on interpersonal relationships for various STIs including HIV, genital warts, amongst others.

What we see with PrEP when people are not afraid of HIV, we think that people enjoy sex more. Or positive sexual relations, pleasure, connections with people. It impacts your relationship, how you stand in your sexual network. (I.5, Non-governmental Organisation, The Netherlands)

They feel that PrEP is giving people a lot more confidence of having new relationships, it makes them be more confident in their sex life, knowing that they can't pass the virus on. (I.23, Government Researcher, UK)

Theme 3: productivity and labour

A link was drawn between sexual health and productivity by many experts. They indicated that STIs that are left untreated can continue to affect an individual's health and can have a 'knock-on effect' on an individual's productivity and participation in the labour market. One concern was also that untreated STIs will continue to spread and infect more and more people and create an even bigger impact on society's productivity and ability to work.

I think the impact on the labour market and the impact on the health sector are very similar in that every single STI has horrible consequences down the line if it isn't treated. […] If it's not treated then you're going to get more people that are incredibly unwell. And yes, that's going to have a huge impact. (I.2, University/Research Institute, UK)

It will be in terms of work productivity so they would not be able to work or there are some mental health issues that then kind of snowballs into the need for disability pensions, but this would be a very small minority of my patients. (I.3, University/Research Institute, Australia)

The loss of income and productivity was often linked to chronic conditions, illustrating the relationship between health and work. For example, many clinicians explained that the development of PID can have an impact on women's productivity as well as economic consequences.

In terms of the labour market, so treating every single STI has huge health impacts down the line. If you''ve got women who then develop PID a couple years down the line they will be out work for a while, they are going to be hospitalised for a while, etc. […] The provision of healthcare you need when you don't treat an STI is huge. […] and that's going to have an impact on their productivity as well. (I.2, University/Research Institute, UK)

One expert highlighted the possibility of people living with well-managed HIV to work effectively.

Similarly, if HIV is well managed then you've got people coming in once or twice a year getting their blood sample done, getting their medications checked, it's all very easy and they probably aren't taking a huge amount of time off work. However, if HIV progresses to AIDS people are incredibly ill and probably have to be off work for quite some time. (I.2, University/Research Institute, UK)

Theme 4: education

Other wider societal impacts raised by experts included those in the education sector. For example, one described the impact of teenage pregnancy on future educational and professional attainment.

> The same applies to all the broader levels of for instance teenage pregnancy, teenage mothers. […] But also there, of course, they miss out on further education. They miss out on getting a good job or being economically independent. All that ripple effect is happening and this all needs to be taken into consideration. (I.12, University/Research Institute, The Netherlands)

Experts also explained the relationship between sexual health and education in terms of the costs and benefits of comprehensive sexuality education and sexual health education in schools.

> For example, in our implementation research on comprehensive sexuality education, we are working to build linkages between education provision and linkages to health and social services and studying how these linkages function. (I.7, International Policy Organisation, Switzerland)

The benefits of providing sexual health education as outlined by experts included the prevention of STIs, unplanned pregnancies, sexual coercion, sexual abuse and/or unwanted sexual experiences.

> And of course there is the more direct benefit [of school-based sexual health interventions], the more prepared young people are the less likely they are to be at risk of sexual health issues and that includes HIV and STIs but also unplanned pregnancies and sexual coercion or abuse or unwanted sexual experience. (I.20, University/Research Institute, The Netherlands)

> The implications are huge. […] If we do these [school-based sexual health] programmes better and we get to prevent STIs or unwanted pregnancies even more, the cost in the STI testing clinics should in the best scenario go down. (I.12, University/Research Institute, The Netherlands)

The need for sexual health education programmes to be more comprehensive and integrate, among other aspects, sexuality education was expressed.

> It's not only about knowledge but it's also about sexual norms, attitude, skills on how to communicate, how to negotiate, that's very important but still it's a challenge. (I.26, Non-governmental Organisation, The Netherlands)

> For me it is very important, complementary to add interventions for example comprehensive sexuality education because it can boost here. Even where it exists the young people might understand what sexuality means and what sexual life and sexual health means but in real life they can still face some issues. (I.6, International Policy Organisation, Switzerland)

Theme 5: criminal justice/sexual violence

Sexual health was also linked to criminal justice, mainly discussing the wider societal impacts of sexual violence, abuse or assault. Victims of sexual abuse were seen as not only having to bear the direct physical and emotional burden of being violated but also serious mental health consequences.

> For sexual abuse, this is also a double sword, there is this immediate impact of being violated which of course has a mental health impact but behind that there always sits a trauma that is about the rumination, the reliving, but also the thought of what did I do wrong. And society somehow reinforces that. (I.20, University/Research Institute, The Netherlands)

The prevention of sexually violent behaviour(s) can help to avoid significant wider societal impacts, according to experts.

> If we can prevent that violent behaviour then we can also prevent societal costs you know in the mental health part, and broader, people might have depression or other mental health problems, and they don't work anymore or have less participation in labour because of their mental health problems. (I.24, Governmental Organisation, The Netherlands)

The important role of sexual health services in identifying and signposting cases of sexual violence and abuse was emphasised by some experts.

> In terms of victims of crime, you definitely get a lot of that coming through sexual health services. The role of sexual services usually is to funnel them through the system in terms of trying to get justice. Often a lot of support services are available including psychosexual counselling and that sort of stuff. From STI clinics you can kind of funnel them into the type of services that they might need. (I.2, University/Research Institute, UK)

> Especially for sexual health interventions there's a lot of testing and referrals. For example, in a situation where you're experiencing partner violence you may be constantly exposed to whatever sexual health outcome, so we need to direct that to services. (I.16, Researcher, USA)

One expert drew further links between sexual health and the criminal justice system, explaining that those incarcerated are vulnerable to STI outbreaks and are at an increased risk to acquire STIs.

> I think also when you think about the criminal justice system healthcare provision for people that are incarcerated is also really important. STI outbreaks in prisons happen a lot and you know a lot of people go in to prison risking STIs or with STIs and those are often very vulnerable populations. (I.2, University/Research Institute, UK)

Theme 6: housing, addiction and other sectors

The interviews revealed that sexual health can often relate to other issues including housing insecurity, drug use or other issues. Although such issues and sectors were less frequently mentioned, important links were highlighted.

> I was interviewing clients to find out how these (HIV care) services are really influencing people's engagement and experience going through the care continuum. And these things keep popping up you know saying 'I am housing insecure' or 'I also use injection drugs' or 'there is so much stigma' or 'I need social support'. (I.16, Researcher, USA)

> The clinic that I used to work we had health advisors so people with complex sexual health needs got support from the health advisors who would then talk to them about all sorts of things you know housing, chemsex, relationships all that sort of stuff. (I.2, University/Research Institute, UK)

DISCUSSION

Principal findings

This study is the first to comprehensively explore the intersectoral costs and benefits of sexual health issues and interventions and systematically categorise these into sectors to develop a preliminary framework for understanding and considering these intersectoral impacts, and guiding future research and policy. The study findings confirm that sexual health is complex and can generate wide-ranging impacts relating to (1) other areas of health including reproductive and mental health; (2) relationships and family, (3) labour and productivity, (4) education, (5) criminal justice in particular relating to sexual violence and (6) housing, addiction and other sectors.

Furthermore, the participants all felt that sexual health is holistic in nature and there were important impacts on other sectors outside health. This study reveals that there is a need to also consider the wider impacts sexual health issues and interventions can have on an individual's family, friendships and relationships. Experts explained that if STIs are left untreated or unmanaged they can continue to spread and can have a 'knock-on effect' on an individual and society's productivity and participation in the labour market, potentially causing economic consequences. The education sector and, in particular, the provision of sexual health education was perceived to play a key role in the promotion of good sexual health and well-being, the prevention of STIs and the prevention of unplanned teenage pregnancy. Sexual violence, abuse and assault and the risk of developing mental health problems because of such traumatic experience was also discussed, drawing a link to the criminal justice sector.

Comparison to other literature

There is a growing body of evidence that advocates for a more holistic approach to sexual health.[22] Studies have shown important links to mental health, that is, finding a need to support people's mental health and sexual health needs holistically,[23–25] as well as housing, employment status and alcohol use.[26 27] More and more evidence calls for an integrated approach to address the complexity of sexual health by providing holistic services that include health practitioners, mental health professionals, social workers, youth services, employment services and others.[28 29] This study contributes to this emerging literature by providing a comprehensive analysis of the broader impacts relating to sexual health and providing an initial framework.

Implications for policy

This study presents a preliminary framework of relevant intersectoral impacts of sexual health issues and interventions by policy sector, which researchers and policy/decision-makers can use to ensure evaluations are holistically capturing costs and benefits. The findings of this research are in line with the Action Framework by the WHO, which suggests the need for a 'multisectoral framework'.[30] This study highlights the need to take such a multisectoral (intersectoral, societal) approach when evaluating interventions and programmes in sexual health to provide policy/decision-makers in the field of sexual health with optimal and comprehensive estimates of the costs and benefits of sexual health interventions.

Implications for research

The findings of this study have important implications for the design of health economic studies. There is acknowledgement that capturing wider societal implications is (methodologically) challenging.[17] Methods to capture intersectoral costs and benefits are needed, and this study's preliminary framework of intersectoral costs can help guide future research in sexual health and other public health issues. Future research is recommended to explore other potentially relevant links between sexual health and additional sectors not covered in this study, and to expand the preliminary framework.

Strengths and limitations

One of the key strengths of this study is the use of semi-structured, open-ended interviews that allowed for a systemic, rigorous and structural coverage of key topics while, at the same time, allowing for a degree of freedom and adaptability in seeking information from the interviewees. Another strength is the depth of information generated by including 28 experts from six different countries and covering a wide range of different professions. As the interviews were conducted with participants based in OECD member countries, it would be important to explore the views and experiences of those based in other settings.

The use of online interviews allowed for more flexibility with regard to the recruitment of participants and therefore ensured a larger sample of participants over a short period of time. Participants did not have to travel to take part in the interviews, which was considered time saving.

The online interviews also allowed participants to join the interviews from a setting most convenient and comfortable to them.[31] We acknowledge that the facilitation of online interviews can be challenging, for example, due to internet issues, power cuts, etc, particularly in some low-income and middle-income countries. Further, as the interviewees were all experts in sexual health it could be important to conduct interviews with other stakeholders outside of this area. There could be additional sectors affected by sexual health issues and interventions that are not covered in this study, and further research is warranted in this area.

CONCLUSION

Sexual health issues and interventions can generate costs and benefits across different sectors of society. These need to be considered when evaluating interventions relating to sexual health to ensure well-informed, optimal (policy) decisions are made. This preliminary framework developed by this study can help guide future research and policy.

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Patient consent for publication Not applicable.

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Provenance and peer review Not commissioned; externally peer reviewed.

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Online supplemental appendix 1: Topic guide

Introduction

- First, can you tell me a little bit about your current role?
    - Have you been working in the field of sexual health or public health in general?
    - What other (related) professions/roles have you worked in?
- In your current profession, do you use any economic/cost data?
    - What type of economic/cost data are you working with?
    - Do you work with any economic/cost data specifically related to sexual health (or public health)?
    - What costs does that involve?
    - What do you use it for?
    - Do you use any economic studies in your profession? (e.g. decision making)
    - Are you familiar with economic evaluations?
    - Do you work with health economists?
- Are you currently working on/with any sexual health interventions?

Questions on intersectoral costs and benefits

- If I asked you to think of an example of a sexual health issue or intervention – what comes to mind?
    - Is this one you're currently working with?
- Which impact(s) do you expect to occur as a result of this sexual health issue or intervention? Can you think of an example?
    - Which impact does this issue or intervention have on an individual/ society/ economy?
    - Are there any specific types of costs you're thinking of?
        - Are they any costs you would expect to incur on the health sector?
        - Are they any costs you would expect to incur outside of the health sector?
    - Are there any specific benefits/ outcomes/ effects you're thinking of?
        - Are they any benefits you would expect to incur on the health sector?
        - Are they any benefits you would expect to incur outside of the health sector?
    - Are there any other sectors outside health that could be affected by a sexual health issue or intervention?
    - *[We define those impacts outside of health as intersectoral costs and benefits]*

- Do you (have to) evaluate any sexual health interventions/ programmes?
    - Do you (have to) consider any types of costs and benefits when you evaluate a sexual health programme?
        - What do you use it for?
        - When do you use it?
        - Why do you use it?
    - What about costs outside the health sector (i.e. intersectoral costs and benefits)?
- In your opinion, how relevant (or helpful) is it to consider intersectoral costs and benefits as part of an evaluation of an intervention or programme?

    - How would you identify and measure intersectoral costs and benefits?
- In your opinion, is there an extent to which intersectoral costs and benefits could contribute to the public health budget?
    - Would you say intersectoral costs and benefits contribute to the total cost burden of sexual health services or public health?

- For participants working in research, health economics, or other]
    - What are some elements to consider when you evaluate an intervention or programme from a societal perspective?
    - Can you provide some examples of how to identify and measure intersectoral costs and benefits?
    - What are some challenges?

- Policy context
    - How could you convince decision/policymakers to invest (more) in sexual health?
    - Do you think they consider economic evidence?
    - Do you think illustrating a ICBs - higher (cost) burden or cost savings - would change policy decisions?
        - Potentially give more prioritisation to sexual health services?

Is there anything else you would like to add?

Do you have any questions for me?

Online supplemental appendix 2: Standards for Reporting Qualitative Research (SRQR)*
http://www.equator-network.org/reporting-guidelines/srqr/

		Page number(s)
Title and abstract		
1	**Title** - Concise description of the nature and topic of the study Identifying the study as qualitative or indicating the approach (e.g., ethnography, grounded theory) or data collection methods (e.g., interview, focus group) is recommended	1
2	**Abstract** - Summary of key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results, and conclusions	2
Introduction		
3	**Problem formulation** - Description and significance of the problem/phenomenon studied; review of relevant theory and empirical work; problem statement	4-5
4	**Purpose or research questio**n - Purpose of the study and specific objectives or questions	5
Methods		
5	**Qualitative approach and research paradigm** - Qualitative approach (e.g., ethnography, grounded theory, case study, phenomenology, narrative research) and guiding theory if appropriate; identifying the research paradigm (e.g., postpositivist, constructivist/ interpretivist) is also recommended; rationale**	5
6	**Researcher characteristics and reflexivity** - Researchers' characteristics that may influence the research, including personal attributes, qualifications/experience, relationship with participants, assumptions, and/or presuppositions; potential or actual interaction between researchers' characteristics and the research questions, approach, methods, results, and/or transferability	5-6
7	**Context** - Setting/site and salient contextual factors; rationale**	5
8	**Sampling strategy** - How and why research participants, documents, or events were selected; criteria for deciding when no further sampling was necessary (e.g., sampling saturation); rationale**	5
9	**Ethical issues pertaining to human subjects** - Documentation of approval by an appropriate ethics review board and participant consent, or explanation for lack thereof; other confidentiality and data security issues	6
10	**Data collection methods** - Types of data collected; details of data collection procedures including (as appropriate) start and stop dates of data collection and analysis, iterative process, triangulation of sources/methods, and modification of procedures in response to evolving study findings; rationale**	5-6
11	**Data collection instruments and technologies** - Description of instruments (e.g., interview guides, questionnaires) and devices (e.g., audio recorders) used for data collection; if/how the instrument(s) changed over the course of the study	5-6

12	**Units of study** - Number and relevant characteristics of participants, documents, or events included in the study; level of participation (could be reported in results)	7
13	**Data processing** - Methods for processing data prior to and during analysis, including transcription, data entry, data management and security, verification of data integrity, data coding, and anonymization/de-identification of excerpts	6
14	**Data analysis** - Process by which inferences, themes, etc., were identified and developed, including the researchers involved in data analysis; usually references a specific paradigm or approach; rationale**	6
15	**Techniques to enhance trustworthiness** - Techniques to enhance trustworthiness and credibility of data analysis (e.g., member checking, audit trail, triangulation); rationale**	6

Results/findings

16	**Synthesis and interpretation** - Main findings (e.g., interpretations, inferences, and themes); might include development of a theory or model, or integration with prior research or theory	7
17	**Links to empirical data** - Evidence (e.g., quotes, field notes, text excerpts, photographs) to substantiate analytic findings	8-15

Discussion

18	**Integration with prior work, implications, transferability, and contribution(s) to the field -** Short summary of main findings; explanation of how findings and conclusions connect to, support, elaborate on, or challenge conclusions of earlier scholarship; discussion of scope of application/generalizability; identification of unique contribution(s) to scholarship in a discipline or field	15-16
19	**Limitations** - Trustworthiness and limitations of findings	16-17

Other

20	**Conflicts of interest** - Potential sources of influence or perceived influence on study conduct and conclusions; how these were managed	18
21	**Funding** - Sources of funding and other support; role of funders in data collection, interpretation, and reporting	18

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