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World Health Organization
Collaborating Centre on Investment
for Health and Well-being

Self-administered sexual health testing in an open prison setting in Wales

A Health Impact Assessment and Social Return on Investment analysis

Main Report

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Purpose of the report

This report outlines findings from a study that aims to understand the health impacts and social return on investment of a self-sampling service for Sexually Transmitted Infections (STIs) in an open prison setting in Wales. The study applies an innovative approach by using a Health Impact Assessment (HIA) lens and approach, in combination with the Social Return on Investment (SROI) framework.

Target audience

This report aims to inform the following stakeholders:

- Public health professionals working in the field of sexual health
- Policy and decision makers
- All those who have an interest in HIA and SROI
- Academia

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https://phwwhocc.co.uk/ih/our-work/sustainable-investment-for-health-well-being/

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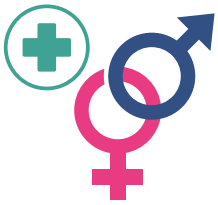
Mae'r adroddiad hwn ar gael yn Gymraeg / This report is available in Welsh

Executive summary

Sexual health in prisons



The sexual health of men in prisons is often among the poorest (1).

Chlamydia and gonorrhoea infections are less understood within prisons than the community (2).

Aims and objectives

Measuring and capturing the wider impact and value (social, health, economic and environmental) of public health interventions and programmes is imperative to help make the case for investment in prevention.

This will maximise limited resources and provide value for money whilst responding to growing health inequalities across communities and societies.

The aim of this unique study is to better understand the health impact and wider (social) value of a self-sampling service for Sexually Transmitted Infections (STIs) in an open prison setting, through the combined lens of Health Impact Assessment (HIA) and Social Return on Investment (SROI).

What are HIA and SROI?

HIA is a combination of procedures, methods and tools used to judge 1) the potential effects of an activity on the health of the population, and 2) the distribution of those effects within a population (3).

SROI is a framework to measure social value (social, economic and environmental outcomes), by capturing, quantifying and monetising outcomes (4).

Both are participatory in their approach and rely on stakeholder engagement.

This unique primary study applies an innovative approach to pilot the use of HIA and SROI in combination to capture and measure the wider value of the self-sampling service.

What is the self-sampling STI service?

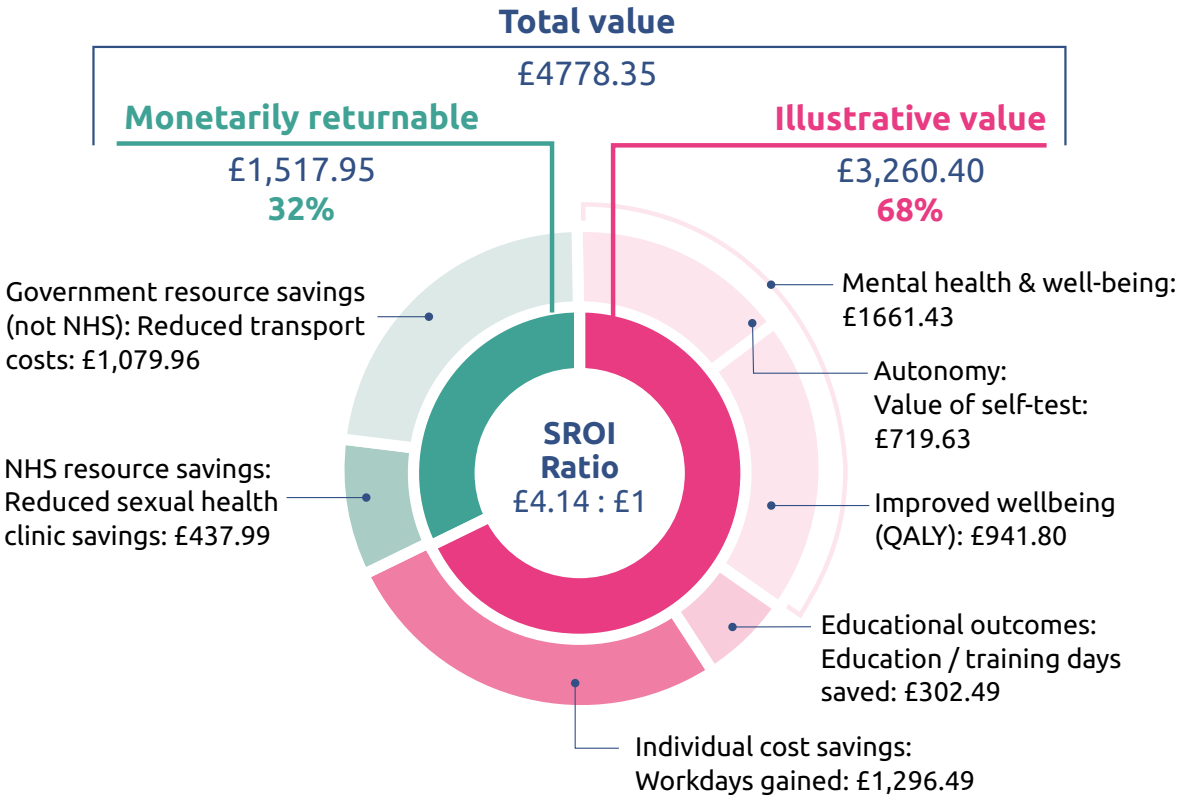
The self-sampling test is a kit containing equipment to obtain swabs and urine.

Prisoners use the kit themselves to complete samples instead of being transported to an external clinic.

The kit is then sent to a laboratory to test for the presence of chlamydia and gonorrhoea.

Key findings

- The SROI analysis showed that self-sampling tests for chlamydia and gonorrhoea within an open prison generates **£4,778.35** in social value for stakeholders.
- The investment (or costs) of the intervention was **£1,153.94**.
- Despite zero positive infections of chlamydia or gonorrhoea being identified throughout the study period, **a positive SROI ratio** was reported. This can be primarily attributed to reduced transport costs, a reduction in test waiting times, and an improvement in the number of days service users can work/train. It can be assumed if positive infections were identified, **the value would only increase** due to impacts on physical health outcomes.
- This is the first study to analyse a self-sampling service for sexual health using a social value lens. Similarly, this is the first to innovatively combine HIA and SROI to produce a wider measure of social value. The first stages of the HIA process, including the **use of the wider determinants and population groups checklists**, allowed for a holistic public health lens to be taken.
- Overall **68% of the total value created** by the service was attributable to social value outcomes, which would not have been captured using traditional economic methodologies.
- Three main stakeholder groups were identified and included in the analysis; service users (prisoners), the NHS and HMPPS. Each group experienced differing outcomes as a result of the intervention.



Footnote to above Figure: The following outcomes are not displayed as the positivity rate was zero and they therefore did not return any value: 1) Chlamydia: Improved physical health (QALYs gained). 2) Gonorrhoea: Improved physical health (QALYs gained)

Conclusion

This report has highlighted the health and well-being impacts, and social value of a sexual health self-sampling service within an open prison in Wales.

By following an innovative process of using HIA and SROI in tandem, this work has demonstrated the returnable and illustrative value of the intervention, through stakeholder engagement and the use of financial proxies to value non-tangible outcomes.

It has provided a platform for the future use of frameworks such as SROI within the field of public health to effectively demonstrate the wider value of interventions and services and how other impact assessments and frameworks can be used together in time efficient and effective ways.

Contents

Glossary

Attribution	An assessment of how much of the outcome was caused by the contribution of other organisations or people.
Chlamydia	Chlamydia is one of the most common sexually transmitted infections in the UK. It is passed on through unprotected sex (sex without a condom) and is particularly common in sexually active teenagers and young adults.
Deadweight	A measure of the amount of outcome that would have happened even if the activity had not taken place.
Discounting	The process by which future financial costs and benefits are recalculated to present-day values.
Discount rate	The rate used to discount future costs and benefits to a present value.
Displacement	When the benefits claimed are at the expense of others outside of the project.
Drop-off	The deterioration of an outcome over time.
Financial proxies	A monetary representation of a value of an outcome.
Gonorrhoea	Gonorrhoea is a sexually transmitted infection caused by bacteria called Neisseria gonorrhoea.
Indicator	Measures that provide information on how much of an outcome is expected to happen or has happened.
Inputs	The contributions made by each stakeholder to ensure the intervention can happen.
Monetise	To assign a financial value to something
Net-present value	The value in today's currency of money that is expected in the future minus the investment required to generate the activity.
Open prison setting	Prisoners held in an open prison are able to hold employment outside of the prison establishment and have visits home. Prisoners have access to a broad range of learning opportunities, and opportunities to work external to the prison setting.
Outcome	The changes that result from an activity. These could be intended or unintended, positive or negative.
Self-sampling	Self-sampling refers to swab and urine culture that is provided to the individual in a package, can be self-administered by the individual, and is sent to a laboratory for testing.
Social value	Social value is the quantification of the relative importance that people place on the changes they experience in their lives.
Stakeholders	People, entities, or organisations who experience change because of an activity.
Wider determinants of health	Wider determinants, also known as social determinants, are a diverse range of social, economic and environmental factors which impact on people's health.

Background and aim

There is an increasing understanding that economic activities can generate both positive and negative social and environmental outcomes (5). Correspondingly, social and environmental activities can also create economic impacts (5). Measuring and capturing the wider impact and value (social, health, economic and environmental) of public health interventions and programmes is critical to help make the case for investment in prevention, maximise limited resources and provide value for money whilst responding to growing health inequalities across communities and societies.

The aim of this study is to better understand the health impact and wider (social) value of a self-sampling service for Sexually Transmitted Infections (STIs) in an open prison setting, through the combined lens of HIA and SROI.

What is social value?

The concept of "value" has shifted from a purely economic lens towards one that considers the wider impacts of an activity. This new definition moves away from narrow concepts of value (for example, Gross Domestic Product)(6) towards the view that people and society should be included in how value is identified. This broader concept of value has been named "**social value**" (4,7). There is no single, or gold standard definition of social value. However, most definitions include the provision of economic, social, and environmental benefits to an area, community, or group of stakeholders. For example, The Expert Panel on Effective Ways of Investing in Health (8) proposed a concept of value built on four value-pillars: **allocative value (equitable distribution of resources), technical value (attaining the best possible outcomes), personal value (achieving patients' individual goals), and societal value (including social participation).**

Measuring value in this way has several benefits:

- It helps to make the case for investment in prevention;
- Maximises limited resources;
- Provides value for money.

This is of particular importance with challenges around budgets and resource allocation, and significant events such as the COVID-19 pandemic, climate change and the cost-of-living crisis. Existing evidence has shown clear independencies between investment in public health and the wider economy (6,9). Furthermore, many Governments (e.g., Finland, Iceland, New Zealand, Scotland and Wales) are moving towards a Well-being Economy (10).

Well-being economies aim to achieve equity, inclusion, and sustainability in both the short term (i.e., people today) and future generations. Within well-being economies, people's health and well-being are viewed as vital elements of economic success (10). Therefore, to support a Well-Being Economy, it is necessary to incorporate health, social, economic and environmental outcomes into the decision-making process (11). It is also vital that the success of such processes can be accurately measured and evaluated.

Measuring health impact and social value

Two frameworks that capture outcomes related to the wider determinants of health are Health Impact Assessment (HIA) and Social Return on Investment (SROI). Both approaches assess a programme's potential social, environmental, and economic impacts on health and well-being. The two approaches can be used as standalone tools. Nevertheless, similarities and crossovers within their approaches mean that they can be used synergistically (see Appendix 1 in Technical Report).

What is HIA?

HIA appraises evidence to judge the effect a programme or policy may have on the health of a population and how the effects are distributed throughout the population (12). The results contain the recommended actions that should be taken to maximize the positive impact and mitigate any negative impact of a policy, plan, programme or project (13; Box 1).

Box 1: Stages of the HIA process (14)

HIA Stage	Description
Stage 1	**Screening to determine whether to complete a HIA.** This includes consideration of whether there are likely to be effects on health.
Stage 2	**Scoping of the boundaries of the assessment, including timeframes, resources, key stakeholders to engage with and evidence collection methods.** A scoping checklist can be used (15), alongside checklists for the wider determinants of health and key population groups (16).
Stage 3	**Appraisal of evidence, which is triangulated and analysed.** This evidence can include peer reviewed and grey literature, stakeholder evidence and routinely gathered statistics and data, for example, government statistics and reporting.
Stage 4	**Reporting.** Recommendations and reporting to inform decision makers, including the construction of a report which includes the findings and any recommended actions that should be taken to maximise the positive impact and mitigate any negative impact.
Stage 5	**Review and reflection including monitoring and evaluation.** This involves highlighting milestones to measure any changes in impact or if the predicted impacts were observed, reviewing the process and any impact which it may have had on decisions and future policies.

What is SROI?

SROI also considers the positive and negative effects a programme, policy or project may have on the health of a population (Box 2). It can build upon HIA by incorporating elements of standard health economic methodologies (e.g., Cost-Benefit Analysis). However, as SROI considers value beyond traditional economic returns, it quantifies and values the social, health, economic and environmental benefits of a programme (7,17). This is important to public health as the primary aim of investments in this field is not only to maximise financial returns, but also improve health and well-being.

Box 2: Stages of Social Return on Investment (SROI) (17)

SROI Stage	Description
Stage 1	**Establishing scope and identifying key stakeholders.** It is important to have clear boundaries about what the SROI analysis will cover, who will be involved in the process and how.
Stage 2	**Mapping outcomes**. Through engaging with stakeholders an impact map is developed, or theory of change, which shows the relationship between inputs, outputs and outcomes.
Stage 3	**Evidencing outcomes and giving them a value.** This stage involves finding data to show whether outcomes have happened and then valuing them.
Stage 4	**Establishing impact.** Having collected evidence on outcomes and monetised them, those aspects of change that would have happened anyway or are a result of other factors are eliminated from consideration.
Stage 5	**Calculating the SROI.** This stage involves adding up all the benefits, subtracting any negatives and comparing the result to the investment. This is also where the sensitivity of the results can be tested.
Stage 6	**Reporting, using, and embedding.** This involves sharing findings with stakeholders and responding to them, embedding good outcomes processes and verification of the report.

Testing for STIs in an open prison setting

The sexual health of men in prisons is often among the poorest in any given country (1) and chlamydia and gonorrhoea infections are less understood within prisons than the community (2). Chlamydia and gonorrhoea are symptomless in many infected individuals. However, if left untreated, they can cause significant adverse health outcomes (18,19). These include epididymitis in men, and pelvic inflammatory disease, chronic pelvic pain, tubal factor infertility, and ectopic pregnancy in women (20). Within the existing literature, STI testing in prisons has been evaluated through an economic lens with a focus on cost-effectiveness (21,22), with none existing on a self-sample service. Only a few have touched on wider societal value (e.g., benefits to partners outside of prison) (23,24).

Equitable care

In 2018, The Royal College of General Practitioners stated that prisoners should be offered healthcare that is equivalent to the care provided to people in the community (25). Within this context, equivalent does not necessarily mean "the same".

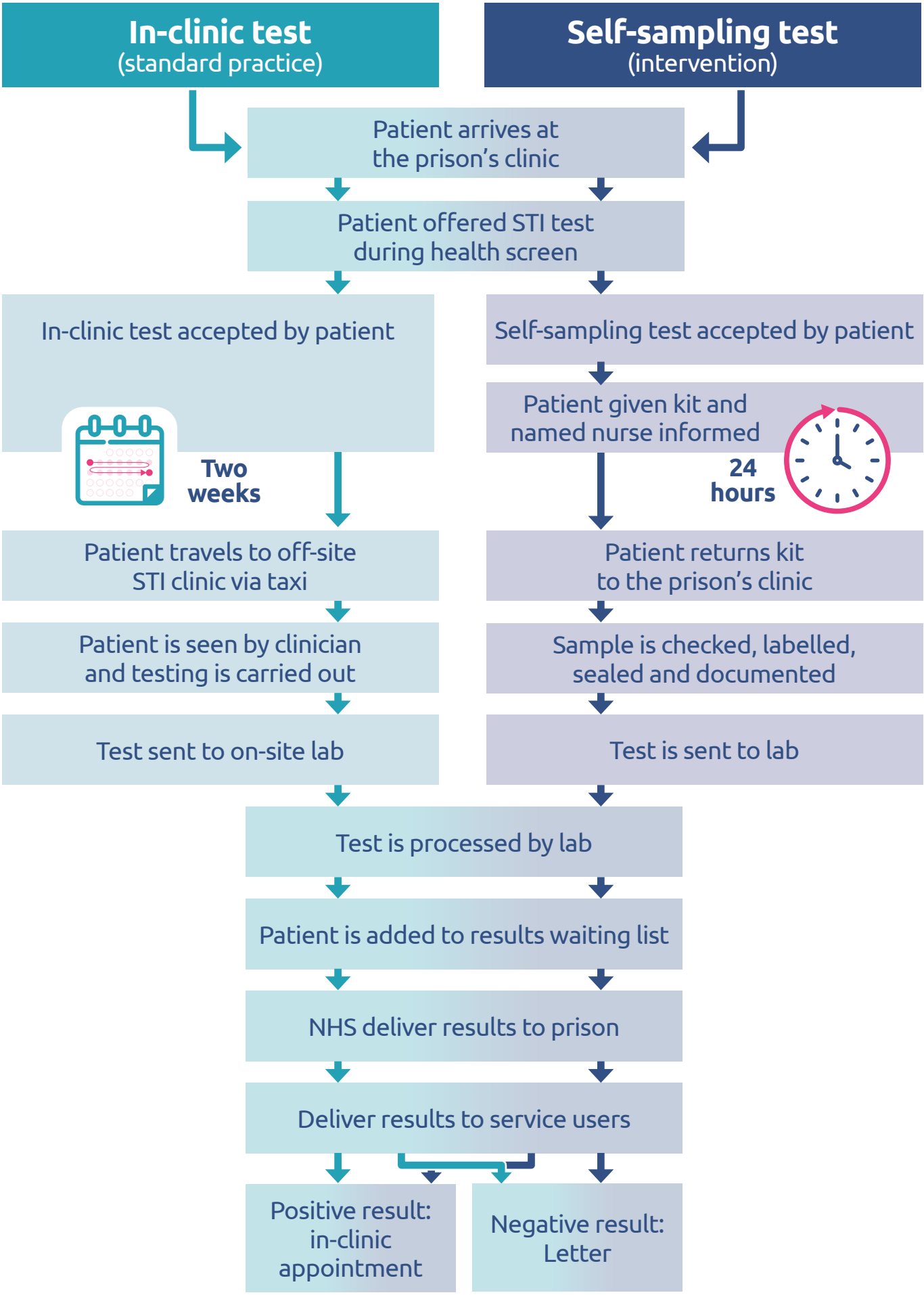
In Wales, a review of sexual health services found that the provision of sexual health services within prisons was not comparable to the services offered to people within the community (26). Challenges posed by the COVID-19 pandemic led to the launch of the "Test and Post" service in May 2020 (27). However, prisoners have limited access to a personal phone, the internet and postal services.

The usual practice at the prison was for prisoners to be transported off site to a sexual health clinic. Once at the clinic, the prisoner's STI tests would be conducted by a healthcare worker. The National Institute for Health and Care Excellence (28) recommend that after requesting a sexual health consultation, patients should be seen within two working days. However, under the usual practice within the prison, prisoners often had to wait weeks for an appointment at the clinic.

Self-sampling tests

An analogue version of the 'Test and Post' service was set up within the open prison. This new self-sample test service was to be used in lieu of the standard STI test services offered (Figure 1). Unlike the in-clinic tests, the self-sampling tests are immediately available to any prisoner who requests a sexual health screen. The self-sampling test kits contain equipment to carry out triple site testing (urine, rectal and throat; see Appendix 2 in Technical Report). The prisoners complete the self-sampling in the privacy of their own cell and return the samples to healthcare staff. Once returned, the healthcare staff post the self-sample test kits to NHS laboratories for testing. If the test is negative, prisoners are sent a letter explaining their results. If the test is positive, the prisoners would be contacted to arrange an appointment.

Figure 1: Standard practice versus self-sampling



Methodological overview

Use of HIA and SROI together

Guided by previous research that highlights the similarities between HIA and SROI (14), during 2023, a combination of HIA and SROI was used to assess the value of the self-sampling intervention (Table 1).

Table 1. Analysis stages and how they map onto the stages of HIA and SROI

Stages of this study	Framework	Stages and action taken
Stage 1: Establishing scope and identification of stakeholder groups	HIA	**Stage 1:** Screening to determine whether to complete a HIA.
		Stage 2: Scoping of the boundaries of the assessment
	SROI	**Stage 1:** Establishing scope & identifying stakeholders
	Actions taken	• Working group was established • The HIA scoping checklist was used to guide discussions (15) • Resources, timeframe and project roles identified • Key stakeholders identified • Quantitative and qualitative engagement methods defined
Stage 2: Mapping outcomes	HIA	**Stage 3:** Evidence gathering & appraisal
	SROI	**Stage 2:** Mapping outcomes
	Actions taken	• A participatory stakeholder workshop was held with NHS and HMPPS stakeholders • The workshop used a wider determinants of health and population groups checklist to define impacts (16) • Qualitative interviews were carried out with HMPPS and service user stakeholders • Qualitative data was thematically analysed to identify key outcomes of intervention • All participants gave informed consent

Stage 3: Valuing and Evidencing Outcomes	**HIA**	No equivalent stage.
	SROI	**Stage 3:** Valuing and evidencing outcomes
	Actions taken	• Quantitative survey (provided in both Welsh and English) distributed to all prison residents attending healthcare services over a three week period in June 2023 • SROI impact map developed to begin the SROI analysis
Stage 4: Establishing impact	**HIA**	No equivalent stage.
	SROI	**Stage 4:** Establishing impact
	Actions taken	• The proportion of value associated with each of the following variables was estimated: ◆ ***Deadweight:*** What would have happened if the activity had not taken place? ◆ ***Attribution:*** What would have happened because of other factors? ◆ ***Displacement:*** Has the value been moved elsewhere? ◆ ***Benefit period:*** How long does an outcome's effect last? ◆ ***Drop off:*** Does the effect of the outcome decrease over time (years)? • Impact was calculated: ◆ Impact = Total Change X (1-Deadweight) X Attribution X (1-Displacement)
Stage 5: The SROI ratio	**HIA**	No equivalent stage.
	SROI	**Stage 5:** Calculating the SROI
	Actions taken	• The costs were calculated • Outcomes were valued using financial proxies • The total value of the self-sample programme was calculated • A sensitivity analysis was performed
Analysis Section 6	**HIA**	**Stage 4:** Reporting and recommendations
	SROI	**Stage 6:** Reporting, using and embedding
	Actions taken	• The results of the HIA and SROI analyses are reported

Stage 1:
Establishing scope and identification of stakeholder groups

HIA	SROI
Stage 1: Screening to determine whether to complete a HIA. **Stage 2:** Scoping of the boundaries of the assessment	**Stage 1:** Establishing scope & identifying stakeholders

Actions taken:

- Working group was established
- The HIA scoping checklist was used to guide discussions (15)
- Resources, timeframe and project roles identified
- Key stakeholders identified
- Quantitative and qualitative engagement methods defined

Establishing scope

A working group was established consisting of PHW representatives from the SROI, HIA and prison services teams, and an SROI consultant. During the first meeting, project roles within the working group were identified, and a scoping checklist was used to help guide discussions. Ethical approval was not required for this project (29) and the Public Health Wales Research Governance team and His Majesty's Prison and Probation Service (HMPPS) National Research Committee both reviewed and approved the project. Access to the prison establishment was granted by the Deputy Governor.

Identifying stakeholders

The HIA scoping exercise undertaken by the working group identified several stakeholder groups to experience a change (whether positive or negative) due to the intervention (Table 2)

Table 2: Stakeholder groups

Stakeholder group	Included in analysis
Service users	Yes
HMPPS	Yes
NHS	Yes
Family members of service users	No – not included as we were unable to engage with these stakeholders (due to ethical constraints[1])
Sexual partners of service users	No – not included as we were unable to engage with these stakeholders (due to ethical constraints[1])

1 Ethical constraints were relating to prisoner confidentiality and the nature of the health condition.

Stage 2:
Mapping outcomes

HIA	SROI
Stage 3: Evidence gathering & appraisal	**Stage 1:** Mapping outcomes

Actions taken:

- A participatory stakeholder workshop was held with NHS and HMPPS stakeholders
- The workshop used a wider determinants of health and population groups checklist to define impacts (16)
- Qualitative interviews were carried out with HMPPS and service user stakeholders
- Qualitative data was thematically analysed to identify key outcomes of intervention
- All participants gave informed consent

Identifying stakeholders

Representatives from each stakeholder group were invited to participate in primary qualitative research to identify outcomes (Table 3).

Table 3. Qualitative stakeholder engagement

Stakeholder group	Method of engagement	Number of participants
Service users	Individual semi-structured interview	3
HMPPS	HIA participatory online workshop	2
NHS	HIA participatory online workshop	2
	Individual semi-structured interview	1

HIA participatory workshop

A HIA participatory workshop was facilitated by the study team in December 2022 and included representatives from both the HMPPS and NHS stakeholder groups. Using the HIA wider determinants of health and population groups checklist to define impacts (16), a set agenda was followed (see Appendix 3 in Technical Report). An additional two qualitative interviews were undertaken with key representatives from the stakeholder groups who could not attend the workshop. Notes from the workshop and interviews were analysed thematically by the study team to allow for emerging themes to be mapped.

Qualitative interviews

Service users were identified by prison staff to participate in an interview. Informed consent was provided by the prisoner prior to their participation. Due to availability of service users as they are often off-site working, only one interview was carried out face-to-face within the prison setting. The remaining two interviews were undertaken virtually via Microsoft Teams. The service users were asked to describe their experiences of the sexual health services in HMPPS (see Appendix 4 in Technical Report).

All interview transcripts were analysed thematically by the study team. The results of this exercise were then combined with the results from the HIA workshop to identify the key outcomes of the intervention and create a Theory of Change (Table 4, Table 5).

Table 4. Stakeholders and their corresponding key outcomes

Stakeholder	Outcome name
Service user	Workdays gained
	Education/training days gained
	Improved wellbeing (QALY*)
	Chlamydia: Improved physical health (QALYs gained)
	Gonorrhoea: Improved physical health (QALYs gained)
	Autonomy/Value of self-sample test
HMPPS	Reduced transport costs
NHS	Reduced sexual health clinic costs

*QALY refers to 'Quality Adjusted Life Years' which "measure the impact of disease on mortality into a single index" (30).

Table 5. Theory of Change Model

Inputs	Outputs	Outcomes	Impact
• HMPPS staff costs • Test costs • Travel costs • NHS staff costs • Laboratory costs • Postage costs	• Self-sampling service for chlamydia and gonorrhoea • Referral to appropriate services for treatment (if result positive)	• Workday(s) gained • Education day(s) gained • Improved wellbeing • Improved physical health • Advantages of self-sampling	• Improved health due to known sexual health status • Savings to HMPPS due to reduced transport costs • Savings to NHS due to reduced clinic costs

Stage 3:
Valuing and evidencing outcomes

HIA	SROI
No equivalent stage	**Stage 3:** Valuing and evidencing outcomes

Actions taken:

- Quantitative survey (provided in both Welsh and English) distributed to all prison residents attending healthcare services over a three week period in June 2023
- SROI impact map developed and key assumptions were made to begin the SROI analysis
- All outcomes were assigned a financial proxy to enable a monetary value to be assigned to them

Quantitative research

Service users who visited the health services in the open prison during June 2023 were invited to share their experiences via a questionnaire (Appendix 5). In total, 12 participants completed the questionnaire, of whom two had used the self-sampling service (Appendix 6). The questionnaires aided the development of descriptions and indicators for each outcome and informed the level of change (Table 6; see Appendix 7 in Technical Report).

Stakeholders and test assumptions

Due to the small response rate to the service user questionnaire (n=12; approximately 5% of the open prison's population), the analysis shifted to an assumption based model based on data obtained from the prison and questionnaire (see Appendix 8 in Technical Report). It was also noted how outcomes could differ between service users, depending on their test results and whether they would have done an in-clinic test anyway if a self-sampling test was not offered. This led to service users being classified depending on their pathways (see Appendix 9 in Technical Report). Based on this, the number of self-sampling and service users per service user group were mapped (Figure 2). This allowed for the number of stakeholders affected to be identified and the change in outcome per stakeholder to be calculated.

Total change

Total change was calculated by using the following formula:

Total change	=	Number of stakeholders	x	Change in outcome per stakeholder

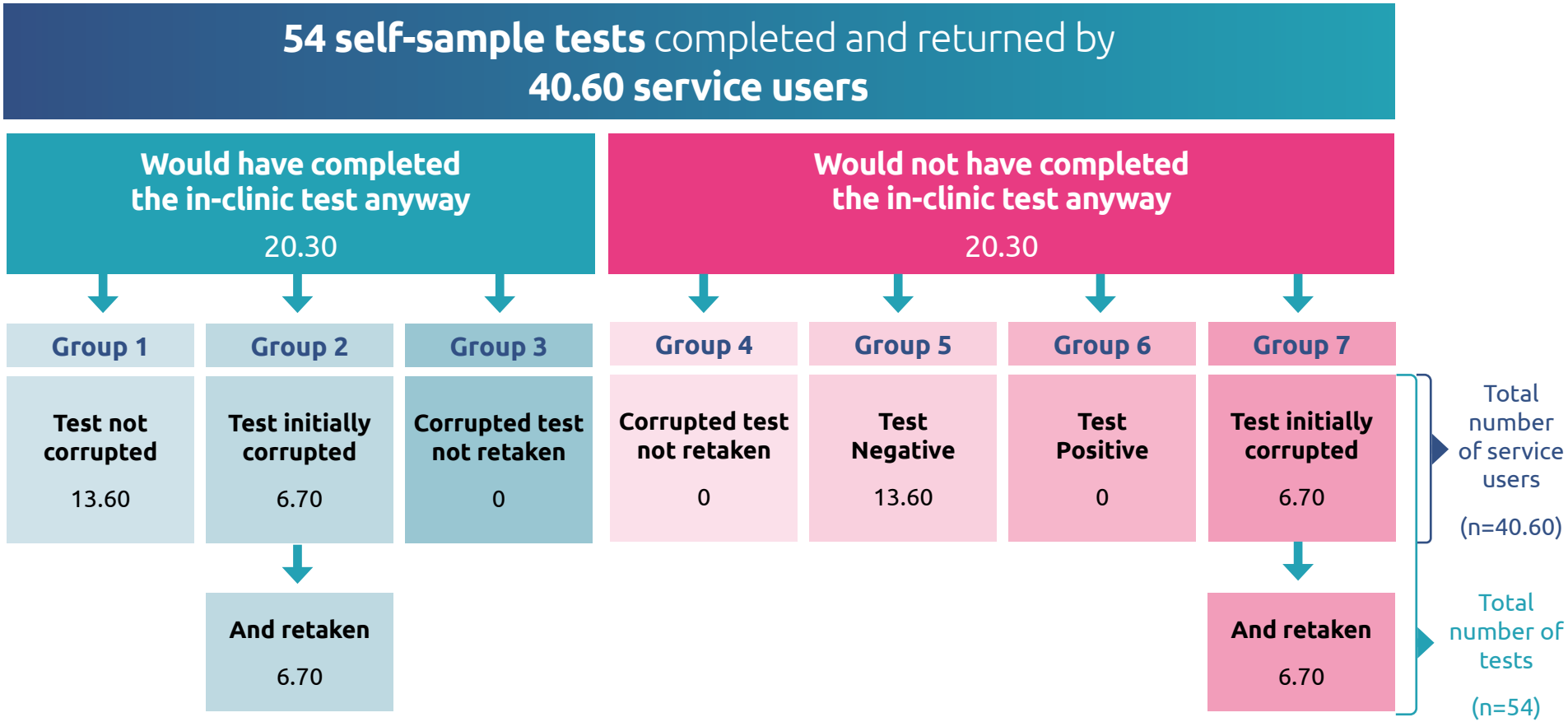
The change in outcome per stakeholder was calculated by subtracting the pre-intervention level of the outcome from the post-intervention level (Table 7).

Table 6. Outcome description, indicator, and level of change

Outcome	Description	Indicator	Group	Level of change	
				Pre-intervention level	Post-intervention level
Service users					
Workdays gained	Service users do not have to miss work. Using the in-clinic method, service users had to travel off-site to a testing clinic. This is no longer the case with the self-sampling service. Therefore, service users do not have to miss work to attend clinic.	The proportion of service users in employment. The low questionnaire uptake meant that this data was sourced from HMPPS (not publicly available): 44% of the 260 prisoners were employed.	Group 1	0	1
			Group 2	0	2
Education/ training days gained	Service users do not have to miss training days. Using the in-clinic method, service users had to travel off-site to a testing clinic. This is no longer the case with the self-sampling service. Therefore, service users do not have to miss education or training to attend clinic.	The proportion of service users in education or training. Again, the questionnaires were not representative, therefore HMPPS data was used. Based on a population of 260 prisoners, 10% of the service users were in education or training.	Group 1	0	1
			Group 2	0	2
Improved wellbeing (QALY)	Service users have reduced anxiety. The service users who would have completed the in-clinic test anyway would have experienced reduced anxiety as the self-sampling service delivers the result of their test to them more quickly than the in-clinic method. The service users who would not have done the test anyway would have experienced reduced anxiety/improved wellbeing as they would know their sexual health status.	Group 1: the proportion (100%) of participants who experienced a reduced waiting time (of 13 days)	Group 1	0	1
		Groups 5-7: the proportion (100%) of service users who would not have done the in-clinic test anyway, but who received information about their sexual health status	Groups 5-7	0	1

Chlamydia: Improved physical health (QALY)	Improved physical health due to service users who would not have completed a test taking a self-sampling test and knowing their health status. Service users know their physical health status and can therefore seek treatment (if needed).	The proportion of service users who had a partner. This number was obtained from the questionnaire (Q26. Do you currently have a sexual partner or partners? Yes: 42%).	Groups 5-7	0	0
Gonorrhoea: Improved physical health (QALY)	Improved physical health due to service users who would not have completed a test taking a self-sampling test and knowing their health status. Service users know their physical health status and can therefore seek treatment (if needed).		Groups 5-7	0	0
Autonomy/ value of self-sampling test	Added value of not having a healthcare worker do a test on you (value of being able to do it yourself). The service users who would have done the test anyway no longer have to have the test performed by a healthcare worker. They can complete the test in private.	The proportion of service users who prefer a self-sampling test to an in-clinic test. This information was collected from the questionnaire (Q22. Which sexual health test would you prefer? A self-sample test: 62%).	Group 1	0	1
			Group 2	0	2
HMPPS					
Reduced transport costs	No transport cost as service users do not have to be transported from HMPPS to the sexual health clinic. This has been included as the prison no longer spends £20.00 per taxi to transport the service users from the prison to the sexual health clinic	The proportion of transport costs saved (100%).	All completed tests	0	1
NHS					
Reduced sexual health clinic costs	Sexual health clinic staff complete tests with service users. During the in-clinic method, service users required a 20 minute appointment at the sexual health clinic. This is not required using the self-sampling method.	The proportion of clinic costs saved (87.5%).	All completed tests	0	1

Figure 2. Number of self-sample tests and service users per service user group (based on a corruption rate[2] of 33%)[3]



2 Corruption rate is where the test was unable to return either a positive or negative result.

3 Some numbers in this figure are not whole due to the previously mentioned assumptions (see Appendix 8 in Technical Report).

Table 7. Total change per stakeholder (s-holders)

Outcome	S-holders affected	Number of potential s-holders	Indicator	Indicator %	Data source	Number of s-holders affected	Level of change		Change per s-holder	Total change per s-holder
							Pre-intervention	Post-intervention		
Service users										
Workdays gained	Group 1	13.601	% service users in employment	44	HMPPS	5.984	0	1	1	5.984
	Group 2	6.699				2.94756	0	2	2	5.895
Education/ training days gained	Group 1	13.601	% service users in education/ training	10	HMPPS	1.36	0	1	1	1.36
	Group 2	6.699				0.6699	0	2	2	1.339
Improved wellbeing (QALY)	Group 1	13.601	% with reduced waiting time	100	EQ-5D-5L	13.601	0	1	1	13.6
	Groups 5-7	20.3	% with reduced anxiety	100		20.3	0	1	1	20.3
Chlamydia: Improved physical health (QALY)	Groups 5-7	20.3	% who have a partner	42	Questionnaire	8.526	0	0	0	0
Gonorrhoea: Improved physical health (QALY)	Groups 5-7	20.3	% who have a partner	42	Questionnaire	8.526	0	0	0	0
Autonomy: Value of self-sampling test	Group 1	13.601	% who preferred self-sampling	62	Questionnaire	8.432	0	1	1	8.432
	Group 2	6.699				4.153	0	2	2	8.306
HMPPS										
Reduced transport costs	All completed tests	54	% of transport costs saved	100	New versus old method	54	0	1	1	54
NHS										
Reduced sexual health clinic costs	All completed tests	54	% of clinic costs saved	87.5	New versus old method	47.248	0	1	1	47.248

Stage 4:
Establishing impact

HIA	SROI
No equivalent stage	**Stage 4:** Establishing impact

Actions taken:

- The proportion of value associated with each of the following variables was estimated:
  - *Deadweight*: What would have happened if the activity had not taken place?
  - *Attribution*: What would have happened because of other factors?
  - *Displacement*: Has the value been moved elsewhere?
  - *Benefit period*: How long does an outcome's effect last?
  - *Drop off*: Does the effect of the outcome decrease over time (years)?
- Impact was calculated

Impact = Total Change **X** (1-Deadweight[4]) **X** Attribution **X** (1-Displacement)

Attribution

All outcomes scored 100% for attribution as all of the outcomes were caused as a direct result of the self-sampling intervention.

Displacement

As the outcomes did not displace any other activities, all outcomes scored zero for displacement.

Drop off

For the outcomes titled **Workdays gained**, **Education/training days gained**, **Autonomy: Value of self-sampling**, **Reduced transport costs**, and **Reduced sexual health clinic costs**, the drop off rate was set to 100% because they only occurred when stakeholders completed a self-sampling test and would have no lasting effects. For all remaining outcomes, the drop-off rate was also set to 100% because the benefit period represented a conservative estimate on the period of time each outcome lasted for. As a result of this, the drop-off rate was not included in further calculations. The calculated impact based on these values is shown in Table 8 below.

4 Deadweight was accounted for by mapping the different routes service users could take to obtain a test. As a result, it did not need to be accounted for in the impact calculation.

Table 8. Calculating the impact of each outcome (s-holders: stakeholders)

Outcome	S-holders affected	Total change per s-holder	Deadweight	Attribution	Displacement	Impact
Service users						
Workdays gained	Group 1	5.984	0	1	0	5.984
	Group 2	5.895	0	1	0	5.895
Education/ training days gained	Group 1	1.36	0	1	0	1.36
	Group 2	1.3398	0	1	0	1.3398
Improved wellbeing (QALY)	Group 1	13.6	0	1	0	13.6
	Groups 5-7	20.3	0	1	0	20.3
Chlamydia: Improved physical health (QALY)	Groups 5-7	0	0	1	0	0
Gonorrhoea: Improved physical health (QALY)	Groups 5-7	0	0	1	0	0
Autonomy: Value of self-sampling test	Group 1	8.432	0	1	0	8.432
	Group 2	8.306	0	1	0	8.306
HMPPS						
Reduced transport costs	All completed tests	54	0	1	0	54
NHS						
Reduced sexual health clinic costs	All completed tests	47.248	0	1	0	47.248

Stage 5:
The SROI ratio

HIA	SROI
No equivalent stage	**Stage 5:** Calculating the SROI ratio

Actions taken:

- The costs were calculated
- Outcomes were valued using financial proxies
- The total value of the self-sample programme was calculated
- A sensitivity analysis was performed

Valuing the outcomes using financial proxies

Each of the outcomes were assigned a financial value (Table 9). Some outcomes were more straightforward than others. For example, the outcome "Reduced Transport costs" represents a cost saving and therefore already had a real-world cost associated with it. Further information on financial proxies can be found in Appendix 10 of the Technical Report.

Total value created by self-sample programme

Value created per year = (Impact X Proxy per stakeholder) **X** Benefit period

Benefit period

The benefit period in this study was one year. Each outcome scored 1 representing 1 year apart from:

- **Workdays gained and Education/Training days gained.** The financial proxy was calculated on a per day basis as opposed to the yearly cost.
- **Improved wellbeing (QALY).** Using the new self-sample method service users received their results 13 days faster than the in-clinic test method. Therefore, the benefit period for this outcome was 13/365, or 0.0356.
- **Chlamydia: Improved physical health (QALYs gained) and Gonorrhoea: Improved physical health (QALYs gained).** Previous research has found that most people delay following through on their decision to obtain an STI test (34). The reported procrastination period was from several weeks to over seven years. In line with the other conservative estimates in this analysis, we used the lower estimate of "several weeks" and used two months as the benefit period (2/12 = 0.17).

Final value = Value created per year **X** (1 / (1 + Discount rate[5])

The **Total value created by the self-sample programme** was calculated by summing the final values for each outcome.

5 Discounting accounts for the time value of money. All outcomes were calculated for the present year, thus, there was no future value to discount.

Table 9. Valuing outcomes (s-holders: stakeholders)

Outcome	S-holders affected	Impact*	Financial proxy per stakeholder: description	Financial proxy per s-holder: value	Benefit period: description	Benefit period: value	Drop off per year (%)***	Value created per year	Final value
Service users									
Workdays gained	Group 1	5.984	UK hourly minimum wage (£10.42) multiplied by a workday (7 hours) (35)	£72.94	1 day	1**	100	£436.51	£436.51
	Group 2	5.895			2 days	2**	100	£859.98	£859.98
Education/ training days gained	Group 1	1.36	Daily cost of bricklaying course (Total cost / Length of course = £2995/40) (36)	£74.88	1 day	1**	100	£101.84	£101.84
	Group 2	1.339			2 days	2**	100	£200.65	£200.65
Improved wellbeing (QALY)	Group 1	13.6	The smallest change on the EQ-5D-5L other than 0 (0.026) X NICE upper threshold (£30,000) (32,33,37)	£780.00	13 days	0.0356	100	£377.85	£377.85
	Groups 5-7	20.3					100	£563.95	£563.95
Chlamydia: Improved physical health (QALY)	Groups 5-7	0	QALYs lost per 1 incident chlamydia infection (20)	£1,409.40	2 months	0.17	100	£0	£0
Gonorrhoea: Improved physical health (QALY)	Groups 5-7	0	QALYs lost per 1 incident gonorrhoea infection (20)	£426.60	2 months	0.17	100	£0	£0
Autonomy: Value of self-sampling test	Group 1	8.432	Market value of a self-sampling test for chlamydia and gonorrhoea (38)	£42.99	1 year	1	100	£362.52	£362.52
	Group 2	8.306					100	£357.11	£357.11
HMPPS									
Reduced transport costs	All completed tests	54	Saving made using new self-sampling test method. Service users no longer require taxi rides to and from the off-site sexual health clinic.	£20.00	1 year	1	100	£1,079.96	£1,079.96
NHS									
Reduced sexual health clinic costs	All completed tests	47.248	Saving made using new self-sampling test method. Service users no longer require a 20-minute off-site	£9.27	1 year	1	100	£437.99	£437.99
							Total value:		£4,778.35

*Using the impact values to manually calculate the displayed value may result in a slightly different value being generated. This is because the impact values have been rounded to display within the table. **The financial proxy was calculated on a per day basis as opposed to the yearly. Therefore, the benefit period represents days gained and did not need to be converted into a decimal ***Drop off not included in final calculations

The SROI ratio

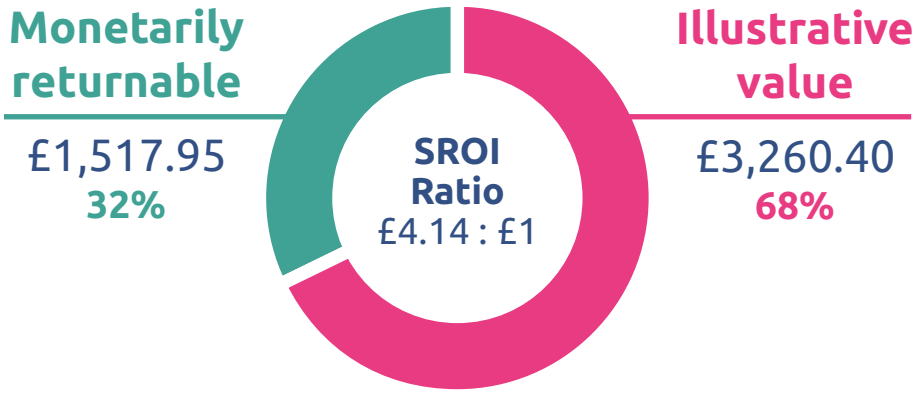
The total value created by the self-sampling programme (as predicted by the SROI model) was **£4,778.35**. The investment (or costs) of the self-sampling programme was **£1,153.94**. A full breakdown of costs can be found in Appendix 11 of the Technical Report.

$$\text{SROI ratio} = \frac{\text{Total value created by self-sampling programme}}{\text{Investment (i.e., costs)}}$$

$$\text{SROI ratio} = \frac{£4{,}778.35}{£1{,}153.94}$$

$$\text{SROI ratio} = £4.14$$

Figure 3. The monetarily returnable and illustrative value of the SROI ratio



The calculated SROI ratio was £4.14 : £1. In other words, £4.14 of social value was created for every £1 invested in the self-sampling programme.

This does not mean an investor would have a monetary return of £4.14 for every £1 invested. **When interpreting the results of an SROI analysis, the results must be viewed in terms of social value.** This social value can then be interpreted in terms of its monetarily returnable value and illustrative value. Monetarily returnable value puts pounds back into the pockets of the investors. For the self-sampling programme, approximately one third of the value is monetarily returnable (Figure 4). In other words, approximately £1.32 is tangibly returned for every £1.00 invested.

The remaining £2.82 reflects illustrative value. This is the value brought by outcomes that do not typically hold a monetary value. For example, £1,661.42 of social value was due to outcomes that improved mental health and well-being (Figure 4).

The total value created for each stakeholder group included in the analysis was also calculated (Table 10).

Table 10. Total value created per stakeholder group

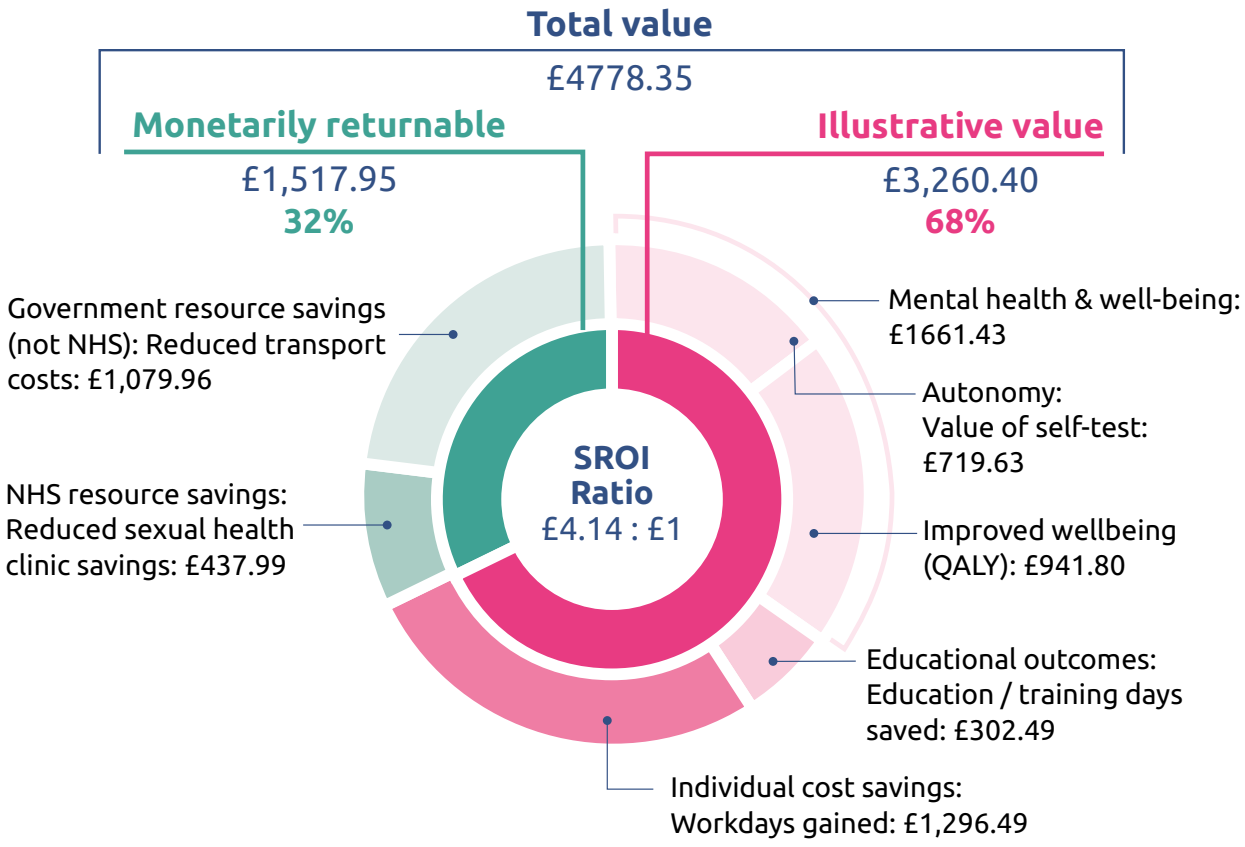
Stakeholder	Value created
Service users	£3,260.40
HMPPS	£1,079.96
NHS	£437.99

Sensitivity analysis

When building an SROI model, many assumptions are made. Some assumptions are guided by the market value of outcomes (and are subsequently monetarily returnable). Other outcomes, however, do not typically hold a market or monetary value. In these cases, throughout the analysis, we have made greater assumptions of the outcomes' value. **To examine the influence of each assumption on the SROI model (and its final ratio), we conducted a sensitivity analysis.** The full sensitivity analysis is reported in Appendix 12 of the Technical Report.

The sensitivity analysis produced a range of SROI ratios from £3.22 to £5.46 for every £1.00 invested. The proportion of service users who would have completed the test anyway was the factor that produced the lowest overall SROI (£3.22 : £1.00). A 50% reduction in the proportion of service users who would have completed an in-clinic test reduced the SROI by 22%. Workdays gained was the outcome that produced the lowest SROI (£SROI). A 50% reduction in the attribution and financial proxy for workdays led to a 14% reduction in the SROI ratio (£3.58 : £1.00). The number of stakeholders had the largest impact on the SROI ratio. **A 50% reduction in the number of stakeholders increased the ratio by 32% to £5.46 per £1.00 invested.**

Figure 4. Total value broken down by monetarily returnable and illustrative value



*The following outcomes are not displayed as the positivity rate was zero and they therefore did not return any value: 1) Chlamydia: Improved physical health (QALYs gained). 2) Gonorrhoea: Improved physical health (QALYs gained)

Key Findings

- The SROI analysis showed that self-sampling for chlamydia and gonorrhoea within an open prison generates **£4,778.35 in social value for stakeholders**. When the total value created by the self-sampling programme was divided by the investment (or costs) of the self-sampling programme (£1,153.94) **the calculated SROI ratio was £4.14 : £1**. Our analysis shows £1.32 of value created is tangibly returned for every £1 spent with the remaining £2.82 reflecting illustrative value. The main beneficiary was service users.

- Although there have been economic evaluations of sexual health services within prisons (40,41), **this is the first to analyse a self-sampling programme using a social value lens**. Similarly, **this is the first study to innovatively combine HIA and SROI to produce a wider measure of social value**. The first stages of the HIA process, including the **use of the wider determinants and population groups checklists**, allowed for a holistic public health lens to be taken.

- A large proportion of the value captured in this study **(68% of the total value) was attributable to social value outcomes,** which **would not have been captured using traditional economic methods.**

- Three main stakeholder groups were identified and included in the analysis; **service users (prisoners), the NHS and HMPPS**. Each group experienced differing outcomes as a result of the intervention.

- Despite zero positive infections of chlamydia or gonorrhoea being identified throughout the study period, a positive SROI ratio was reported. This can be primarily attributed to **reduced transport costs**, **a reduction in test waiting times**, and **an improvement in the number of days service users can work/train**. **It can be assumed if positive infections were identified, the value would only increase** due to impacts on physical health outcomes.

Limitations

Research involving prisoners has been acknowledged as more difficult to carry out than research with participants from the community (42) and therefore the study does have some limitations. There was limited access to the prison, this meant that there were limited options for stakeholder engagement with the prisoners. In addition, as open prisons tend to have a transient population due to short sentences, it was not possible to engage with a high number of service users who had been exposed to the self-sampling service. Similarly, the prisoner's partners were not able to participate in this study due to ethical barriers.

The study was also unable to capture a baseline pre-intervention measure as all data used in the study was recorded after the use of the self-sampling services. Therefore, all pre-intervention levels were based on assumptions. Additionally, no randomisation or control comparison group, was used during this study. Therefore, the self-sample test group were, for example, not compared to a group who did not receive the intervention. Data on the corruption rate for in-clinic tests was also not available so it was assumed the rate of corruption was the same for both the self-sampling and the in-clinic tests.

It is also important to note, the self-sampling programme was not widely advertised within the prison, therefore certain population groups within the prison may not have benefitted from the campaign.

Conclusion

This report has highlighted the health and well-being impacts, and social value of a sexual health self-sampling service within an open prison in Wales.

By following an innovative process of using HIA and SROI in tandem, this work has demonstrated the returnable and illustrative value of the intervention, through stakeholder engagement and the use of financial proxies to value non-tangible outcomes.

It has provided a platform for the future use of frameworks such as SROI within the field of public health to effectively demonstrate the wider value of interventions and services and how other impact assessments and frameworks can be used together in time efficient and effective ways.

References

1. Templeton M, Kelly C, Lohan M. Developing a Sexual Health Promotion Intervention With Young Men in Prisons: A Rights-Based Participatory Approach. JMIR Res Protoc. 2019 Apr 29;8(4):e11829.
2. Butler T, Malacova E, Richters J, Yap L, Grant L, Richards A, et al. Sexual behaviour and sexual health of Australian prisoners. Sex Health. 2012 Dec 21;10(1):64–73.
3. Wales Health Impact Assessment Support Unit. Health Impact Assessment. A Practical Guide. [Internet]. 2012 [cited 2023 Feb 15]. Available from: https://phwwhocc.co.uk/whiasu/whiasu-resources/health-impact-assessment-a-practical-guide-2/
4. Social Value UK. What is Social Value? [Internet]. Social Value UK. 2022 [cited 2023 Jan 4]. Available from: https://socialvalueuk.org/what-is-social-value/
5. NEF Consulting. Social Return on Investment: Valuing what matters. Findings and recommendations from a pilot study [Internet]. 2004 [cited 2023 Aug 22]. Available from: https://www.nefconsulting.com/wp-content/uploads/2017/09/sroi-valuing-what-matters.pdf
6. Cylus J, Smith PC. The economy of wellbeing: what is it and what are the implications for health? BMJ [Internet]. 2020 Jun 16 [cited 2023 Jan 10];369. Available from: https://www-bmj-com.mu.idm.oclc.org/content/369/bmj.m1874
7. Banke-Thomas AO, Madaj B, Charles A, van den Broek N. BMC public health. 2015 [cited 2023 Jan 11]. Social Return on Investment (SROI) methodology to account for value for money of public health interventions: a systematic review. Available from: https://pubmed.ncbi.nlm.nih.gov/26099274/
8. Directorate-General for Health and Food Safety (European Commission). Defining value in 'value-based healthcare': opinion by the Expert panel on effective ways of investing in health (EXPH) [Internet]. LU: Publications Office of the European Union; 2019 [cited 2023 Nov 23]. Available from: https://data.europa.eu/doi/10.2875/148325
9. NHS Confederation. Health as the new wealth | NHS Confederation [Internet]. 2020 [cited 2023 Jan 19]. Available from: https://www.nhsconfed.org/publications/health-new-wealth
10. World Health Organization. Health in the well-being economy: background paper: working together to achieve healthy, fairer, prosperous societies across the WHO European Region [Internet]. 2023 [cited 2023 Nov 23]. Available from: https://www.who.int/europe/publications/i/item/WHO-EURO-2023-7144-46910-68439
11. Diener E, Seligman MEP. Beyond Money: Toward an Economy of Well-Being. Psychol Sci Public Interest. 2004 Jul 1;5(1):1–31.
12. European Centre for Health Policy. Health Impact Assessment: Main concepts and suggested approach (Gothenburg Consensus Paper) [Internet]. 1999 [cited 2023 Feb 16]. Available from: https://web.archive.org/web/20061007033923/http:/www.who.dk/document/PAE/Gothenburgpaper.pdf
13. Mindell J, Biddulph JP, Boaz A, Boltong A, Curtis S, Joffe M, et al. A Guide to Reviewing Evidence for use in Health Impact Assessment. 2005 [cited 2023 Dec 22]. Available from: https://discovery.ucl.ac.uk/id/eprint/122644/1/Mindell_Reviewing%20Evidence-Final%20v6.4_230806.pdf
14. Ashton K, Parry-Williams L, Dyakova M, Green L. Health Impact and Social Value of Interventions, Services, and Policies: A Methodological Discussion of Health Impact Assessment and Social Return on Investment Methodologies. Front Public Health. 2020;8:49.
15. Wales Health Impact Assessment Support Unit. Scoping template [Internet]. 2020 [cited 2023 Jul 20]. Available from: https://phwwhocc.co.uk/whiasu/wp-content/uploads/sites/3/2021/12/New-Scoping-Checklist-master-final-draft.pdf

16. Wales Health Impact Assessment Support Unit. Population Group Checklists [Internet]. 2020 [cited 2023 Feb 15]. Available from: https://phwwhocc.co.uk/whiasu/wp-content/uploads/sites/3/2021/05/WHIASU_Population_Groups_Checklist.pdf
17. Social Value UK. A Guide to Social Return on Investment 2012 - Social Value UK [Internet]. 2012 [cited 2023 Jan 9]. Available from: https://socialvalueuk.org/resource/a-guide-to-social-return-on-investment-2012/
18. NHS. nhs.uk. 2021 [cited 2023 Aug 7]. Gonorrhoea. Available from: https://www.nhs.uk/conditions/gonorrhoea/
19. NHS. nhs.uk. 2021 [cited 2023 Aug 7]. Chlamydia. Available from: https://www.nhs.uk/conditions/chlamydia/
20. Li Y, You S, Lee K, Yaesoubi R, Hsu K, Gift TL, et al. The Estimated Lifetime Quality-Adjusted Life-Years Lost Due to Chlamydia, Gonorrhea, and Trichomoniasis in the United States in 2018. J Infect Dis. 2023 Feb 18;227(8):1007–18.
21. Castillo-Laborde C, Gajardo P, Nájera-De Ferrari M, Matute I, Hirmas-Adauy M, Aguirre P, et al. Modelling cost-effectiveness of syphilis detection strategies in prisoners: exploratory exercise in a Chilean male prison. Cost Eff Resour Alloc. 2021 Jan 23;19(1):5.
22. Kraut-Becher JR, Gift TL, Haddix AC, Irwin KL, Greifinger RB. Cost-effectiveness of universal screening for chlamydia and gonorrhea in US jails. J Urban Health Bull N Y Acad Med. 2004 Sep;81(3):453–71.
23. Dauria EF, Elifson K, Arriola KJ, Wingood G, Cooper HLF. Male Incarceration Rates and Rates of Sexually Transmitted Infections: Results From a Longitudinal Analysis in a Southeastern US City. Sex Transm Dis. 2015 Jun;42(6):324.
24. Nowotny KM, Omori M, McKenna M, Kleinman J. Incarceration Rates and Incidence of Sexually Transmitted Infections in US Counties, 2011–2016. Am J Public Health. 2020 Jan;110(S1):S130–6.
25. RCGP. Equivalence of care in Secure Environments [Internet]. 2018 [cited 2023 Jul 24]. Available from: https://www.rcgp.org.uk/representing-you/policy-areas/care-in-secure-environments
26. Couzens Z, Jones A, Shankar G. A Review of Sexual Health in Wales [Internet]. 2017 [cited 2023 Jul 24]. Available from: https://phwwhocc.co.uk/resources/a-review-of-sexual-health-in-wales/
27. NHS Wales. Wales STI Testing Kit | Test and Post [Internet]. 2023 [cited 2023 Aug 7]. Available from: https://www.shwales.online/wales-sti-testing-kit-test-and-post.html
28. National Institute for Health and Care Excellence. Quality statements | Sexual health | Quality standards | NICE [Internet]. NICE; 2019 [cited 2023 Jul 24]. Available from: https://www.nice.org.uk/guidance/qs178/chapter/Quality-statements
29. Health Research Authority. Do I need NHS Ethics approval? [Internet]. 2022 [cited 2023 Jan 4]. Available from: https://www.hra-decisiontools.org.uk/ethics/
30. Van Wilder L, Devleesschauwer B, Clays E, Van der Heyden J, Charafeddine R, Scohy A, et al. QALY losses for chronic diseases and its social distribution in the general population: results from a Belgian Health Interview Survey. BMC Public Health. 2022 Jul 7;22(1);1304.
31. EuroQol. EQ-5D-5L – EQ-5D [Internet]. 2023 [cited 2023 Dec 11]. Available from: https://euroqol.org/eq-5d-instruments/eq-5d-5l-about/
32. McCabe C, Claxton K, Culyer AJ. The NICE Cost-Effectiveness Threshold. PharmacoEconomics. 2008 Sep 1;26(9):733–44.
33. Appleby J, Devlin N, Parkin D. NICE's cost effectiveness threshold. BMJ. 2007 Aug 25;335(7616):358–9.
34. Balfe M, Brugha R. What prompts young adults in Ireland to attend health services for STI testing? BMC Public Health. 2009 Aug 26;9(1):311.

35. UK Government. GOV.UK. 2023 [cited 2023 Nov 23]. National Minimum Wage and National Living Wage rates. Available from: https://www.gov.uk/national-minimum-wage-rates
36. Ableskills. NVQ Level 2 Bricklaying Course | Able Skills [Internet]. 2023 [cited 2023 Nov 23]. Available from: https://www.ableskills.co.uk/bricklaying-training-courses/nvq-level-2-bricklaying-courses/
37. EQ-5D. EQ-5D-5L – EQ-5D [Internet]. 2023 [cited 2023 Nov 23]. Available from: https://euroqol.org/eq-5d-instruments/eq-5d-5l-about/
38. Superdrug. Buy Chlamydia & Gonorrhoea Test Kits | Superdrug Online Doctor [Internet]. 2023 [cited 2023 Nov 23]. Available from: https://onlinedoctor.superdrug.com/chlamydia-gonorrhoea-test-kit.html
39. Public Health Wales Protection Division. Sexual Health in Wales: Sexually Transmitted Infections, Emergency and Long Acting Reversible Contraception provision and Termination of Pregnancy - Annual Report. 2023 [Cited 2023 Dec 23] Available from: https://phw.nhs.wales/publications/publications1/sexual-health-annual-report-2023/
40. Bagnall AM, South J, Hulme C, Woodall J, Vinall-Collier K, Raine G, et al. A systematic review of the effectiveness and cost-effectiveness of peer education and peer support in prisons. BMC Public Health. 2015 Mar 25;15(1):290.
41. Settumba SN, Chambers GM, Shanahan M, Schofield P, Butler T. Are We Getting Value for Money from Behavioral Interventions for Offenders? A Research Note Reviewing the Economic Evaluation Literature. Am J Crim Justice. 2018 Jun 1;43(2):411–31.
42. Sivakumar V. Prison Research: Challenges in Securing Permission and Data Collection. Sociol Methods Res. 2021 Feb 1;50(1):348–64.

Our Priorities 2018-2030

Building and mobilising knowledge and skills to improve health and well-being across Wales

Influencing the wider determinants of health

Improving mental well-being and resilience

Working to Achieve a Healthier Future for Wales

Supporting the development of a sustainable **health and care system focused on prevention** and early intervention

Promoting healthy behaviours

Protecting the public from infection and environmental threats to health

Securing a **healthy future** for the next generation

Our Values:

Working together with trust and respect to make a difference

GIG CYMRU NHS WALES
Iechyd Cyhoeddus Cymru
Public Health Wales

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