Impact and experiences of offering HIV testing across a whole city population through primary care clusters and GP surgeries in the

Texting 4 Testing (T4T) project



TEXTINGFORTESTING

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Executive summary

Welsh Government has committed to eliminating the transmission of HIV by 2030. To meet this goal, the small proportion of people living with HIV who are unaware of their HIV status need to be offered testing. We therefore conducted a service improvement project which aimed to offer SMS texting of an offer for a HIV test (via Sexual Health Wales, an online STI and HIV testing maintained by Public Health Wales) through their primary care provider to the whole population of Cardiff & Vale with evaluation of uptake, positivity and patient acceptance.

The Texting 4 Testing (T4T) project involved asking GP practices across Cardiff and the Vale of Glamorgan to send text messages to all of their adult patients signposting and encouraging them to test for HIV by ordering a home test through Sexual Health Wales. This was supplemented by social and print media advertising the project. Practices could be reimbursed by the project for the text messages that were sent.

We enrolled 20/60 practices across 6/9 Primary Care clusters across Cardiff & Vale between August and November 2022. Practices sent approximately 140,000 SMS text messages to their patients and around 3% of individuals receiving a text clicked through to the Sexual Health Wales online service. Those ordering a test after receiving a text tended to be older, were more likely to belong to a non-White ethnic group, and engaged in different sexual practices compared to those ordering a test through Sexual Health Wales via some other route. HIV test uptake was higher among those ordering a test after receiving a text, and the majority also opportunistically tested for other STIs (e.g. gonorrhoea and chlamydia) and other blood borne viruses (e.g. hepatitis B, hepatitis C, syphilis). However, tests returns and test positivity tended to be lower.

GP practices experienced minimal disruption as a result of sending text messages out (one patient query for every 2,400 text messages sent, approximately, with the majority of these asking for further information). Furthermore, while GP practices declined the initial offer of training around modern HIV messages, there were a number of knowledge gaps identified among practice staff and an interest in receiving training at the end of the project.

We list our key findings and recommendations for further work in this area on the next page.



Recommendations

- A programme of simple texting of a free postal HIV test offer to adult patients increases testing behaviours with minimal disruption to the routine of a practice while being largely acceptable to patients
- Sending testing messages to the general public reaches people from social groups who might not have considered it previously or had been less likely to be exposed to information about HIV and sexual health
- c. There is potential for a wider use of texting support to reduce other sexually transmitted infections
- d. The Welsh Government and NHS should consider supporting GP text messaging more widely as both educational and cost-saving
- e. Use of a prompt increases test returns and should be considered for future inclusion within the Sexual Health Wales postal testing system
- Further information should be provided to all GP practices across Wales about the Sexual Health Wales postal testing service
- g. Education in primary care, couched in ways that can support time-poor and overstretched staff, needs to become a priority within the Wales HIV Action Plan and be addressed as a matter of urgency
- Health promotion messages about sexual health should not only aimed at the young as older people may not receive appropriate advice about sexual behaviour due to mistaken assumptions
- i. Identification of an appropriate budget for texts is likely to be a core component of supporting any GP interest in reiteration of the exercise
- j. Single handed practices which are more common in rural and deprived areas may need greater levels of support to participate
- k. Future resource planning may find our patterns showing expected levels of take-up helpful
- I. Any future iteration should make efforts to ensure that information materials are accessible and known to all practice staff including reception
- m. Any future iteration should contain a simple baseline questionnaire to establish knowledge levels of basic HIV messages to enable accurate assessment of learning and attitude change
- n. A follow up offer of training should be built in to any future work of this kind



Introduction

The Welsh Government has committed to eliminating the transmission of HIV by 2030. Between 2015 and 2021, new diagnoses of HIV decreased by 75% due to increased testing, early treatment for people living with HIV and the use of pre-exposure prophylaxis in communities at increased risk of HIV living in Wales. However, to meet the goal of completely eliminating transmission, the small proportion of people living with HIV who are unaware of their HIV status need to be offered testing. Traditional paradigms of testing in sexual health clinics may not be able to reach into the general population to diagnose the undiagnosed, and so innovative methods should be considered to ensure no one is left behind. Free, population wide, postal self-sampling tests for HIV have been available in Wales since the COVID pandemic in 2020 and provide a mechanism for testing outside of sexual health clinical services. This project uses pilot data to design, implement and evaluate a city and region wide testing project using primary care to invite people to test by SMS text message by directing them into the established self-sampling programme.

Background

In the British HIV Association HIV Testing Guidelines in 2020, testing for HIV is deemed cost effective in scenarios when the background incidence of HIV in the population is greater than 2 per 1000 people. The estimated prevalence of undiagnosed HIV in the general population of Cardiff & Vale is below this and so testing at new primary care registrations or emergency departments as performed in other large UK settings is not currently supported in Cardiff & Vale by national guidelines.

However, the proportion of late HIV diagnoses in Cardiff & Vale is above levels experienced in other similar size UK cities and there is evidence that stigma perceived by people living with HIV is also greater than expected in other similar sized UK cities, so it is identified that Cardiff has particular issues that require an exploration of alternative approaches to testing and diagnosing people living with HIV in its population who are unaware of their status.

A pilot in 2021 in the Cardiff City & South cluster examined whether an SMS invite for a HIV home test was acceptable to the local population and whether the offer of a test resulted in new diagnoses (https://fasttrackcardiff.files.wordpress.com/2021/11/gp-facilitated-hiv-home-testing-pilotevaluation-report-v1.0-15112021.pdf). In this project, there was widespread acceptance of the testing by the local population and their primary care providers, and a new diagnosis was made in someone who was neither previously aware of their status, nor a regular user of sexual health clinics in the city.



In Wales, primary care is commissioned by the geographical health boards rather than a national body such as NHS England and at the time of this work, primary care surgeries were grouped into clusters with a degree of shared autonomy, the ability to set local priorities and to test out new ways of delivering care through cluster funding which was direct from Welsh Government and not managed by the health boards that commissioned general medical services. The funding for the pilot was through the cluster funds with the approval of the medical centres in the Cardiff City & South grouping.

To examine if the positive findings from the pilot could be replicated throughout Cardiff and in Wales as a whole, the Texting for Testing project obtained one year charitable project funding from Gilead Sciences via Pride Cymru (the lead member of Fast Track Cardiff & Vale) and was a collaboration between Fast Track Cardiff & Vale, Cardiff & Vale NHS University Health Board, Public Health Wales and Cardiff University who undertook a comprehensive evaluation programme.

The project aimed to offer SMS texting of an offer for a HIV test through their primary care provider to the whole population of Cardiff & Vale with evaluation of uptake, positivity and patient acceptance. Along this, evaluation recorded the service impact within primary care and assessed through surveys education and attitudes to HIV and HIV testing in primary care. GP clusters and practices had to opt-in to the programme and were provided with financial support to send out SMS messages.



Approach

Design

This was a service improvement project piloted in Primary Care clusters across Cardiff & the Vale of Glamorgan conducted between April 2022 and January 2023. There are nine Primary Care clusters in Cardiff & the Vale of Glamorgan (see Figure 1 below), serving a total population of 445,000. In our previous pilot (https://fasttrackcardiff.files.wordpress.com/2021/11/gp-facilitated-hiv-home-testing-pilot-evaluation-report-v1.0-15112021.pdf), we focussed on one Primary Care cluster (City & South).



Figure 1: Map of Cardiff and the Vale of Glamorgan overlaid with Primary Care clusters

Selection of Primary Care clusters and GP practices

We aimed to involve all Primary Care clusters and all GP practices within the project, including the cluster involved in our initial pilot. Cardiff & Vale Health Board clusters reach a wide range of diverse populations, ranging from high levels of deprivation in City & South (51% of patients in the bottom 20% of the Welsh Index of Multiple Deprivation) and Cardiff South West and East (45% each) to the leafy suburb of Cardiff North (3%) and the relatively wealthy villages of Western Vale (0%). Levels of impact with other screening programmes also vary, with e.g. Cardiff North often exceeding targets while some of the inner city clusters struggle to reach them. Both City & South and Cardiff South East have significant levels of ethnic diversity and student populations while Cardiff West includes both deprived and affluent areas.



Intervention components

Text messages referring to Sexual Health Test and Post service

The intervention centred on GP practice staff sending a text message to all of their patients aged 16+ years who had a mobile phone number registered with the practice. The content of the text message was:

"<Practice name> supports HIV testing. Get a free private home test from https://test.hiv.wales/abc123. This text is sent to all adult patients."

The text was adapted to GP practice requirements. A bespoke link was created in order to track click throughs at the GP practice-level.

The link directed people to the Sexual Health Wales website (<u>https://www.friskywales.org/</u>), through which they could order a HIV self-sample test (i.e. a test which you take yourself but send to a laboratory in order to determine the result) through the Test & Post service. The service also offered self-samples for other STIs (chlamydia, gonorrhoea) and Blood Borne Viruses (BBV; hepatitis B, hepatitis C, syphilis). No restrictions were placed on the types of tests an individual could order when accessing the website through the link sent by GPs.

Original plan for triaging via Terrence Higgins Trust HIV

We had originally planned to compare the above strategy to a triaging model whereby those deemed at higher risk of having a reactive HIV test result were provided with a HIV self-test (i.e. a test which you take yourself and receive the results yourself) via Terrence Higgins Trust. This was the model used in our original pilot, and we had planned a head-to-head comparison within this evaluation. However, due to unexpected staff turnover at Terrence Higgins Trust we were unable to compare these models.

Media raising awareness and addressing knowledge gaps

The text messages were supplemented with social and printed media campaigns which aimed to raise awareness of the T4T project both online and within participating GP practices. See Figures 2 and 3 examples of the materials produced. These materials were available for GP practices to use in both English and Welsh. GP practices were also provided with "HIV 101" leaflets containing modern information and messages about HIV (see Appendix).





Figure 2: Example of social media material produced for the T4T campaign



Figure 3: Example of in-practice material produced for the T4T campaign

Training for GP practice staff

GP practice staff were also offered training, which could take place in person or online, about modern HIV messages and sign-posting to sexual health and HIV services in Cardiff and the Vale of Glamorgan. However, no practices took up this option.



Enrolment of Primary Care clusters and GP practices

Primary Care clusters and GP practices were engaged through a mixture of attendance at Primary Care cluster meetings, e-mails with locality managers, and e-mails with GP practice staff. GP practices were reimbursed for the cost of the text messages they sent.

Evaluation

To structure this intervention evaluation, the RE-AIM framework was chosen. As well as impact, outcome and process evaluation, the RE-AIM framework supports sustainable adoption and implementation of effective, generalisable, evidence-based interventions. This was an important factor when selecting a model to frame the evaluation, as one of the initial aims of T4T was to produce an evaluation which allowed replication across other health boards in Wales as part of the HIV Action Plan. Evaluating this project via this framework will also support those beyond Wales seeking to adopt a similar intervention.

The five components of the framework are:

- Reach
- Effectiveness
- Adoption
- Implementation
- Maintenance

A brief section below explains how each part was applied to the evaluation.

Reach involved measuring i.) the number of practice patients who received a text message; ii.) the number of practice patients subsequently engaged with the Sexual Health Wales website; iii.) the demographic profile of those ordering a test through the Sexual Health Wales website.

Effectiveness involved i.) analysing patient feedback (obtained by GP practice staff); ii.) measuring the number of HIV and other STI/BBV test kits ordered; iii.) estimating the proportion of test kits returned; iii.) estimating test positivity (from those returned); iv.) determining whether participation in T4T increased the knowledge of GP surgery staff about modern messages around HIV.

Adoption involved describing the engagement of Primary Care clusters with the project.

Implementation involved i.) describing when and how text messages were sent by GP practices; ii.) measuring the volume of patient queries each practice received.



Maintenance involved extrapolating learning from this project to other health boards across Wales, whether text messages could be sent periodically via GP practices, and the sustainability of such an initiative without external funding.

Data collection

Data were collected in order to analyse link clicks, test ordering (as well as the demographic profile of those ordering tests), test outcomes, feedback received by GP practice staff from patients, and GP practice staff knowledge and attitudes around HIV.

Text message sending

At a GP-practice level, we measured the number of text messages sent and the date on which they were sent.

Web link analytics

We shortened the Sexual Health Wales Test & Post web link using the link management platform TinyURL (<u>https://tinyurl.com/app</u>). We chose this platform as it enabled link customisation and provided sufficient time to leave the link open in order to measure engagement (via link clicks).

A unique link was created for each participating practice in order to track their patients' engagement with the test ordering link. Each link started with <u>https://test.hiv.wales/</u> followed by a combination of three or four additional characters consisting of letters and numbers. This combination of characters was unique to each practice. We measured number of unique human link clicks (as opposed to clicks by automated "bots") and report this at a GP practice level.

Sexual Health Wales Test & Post data

An anonymised dataset was provided by Public Health Wales containing test ordering events, test outcomes, and demographic profiles of those ordering tests. Postcode data were used to map to Primary Care cluster. The dataset was compiled as one test ordering event per row and was restricted to tests ordered from Cardiff & Vale postcodes only.

At the start of the project, the Sexual Health Wales Test & Post service added a question to their system about the T4T project, and individuals could indicate whether they accessed the service after receiving a text message from their GP practice. If individuals stated yes to this question, they were given the option of stating to which GP practice they belonged.

Patient feedback to GP practice staff

All GP practices taking part in the T4T campaign were asked to record any contact they received from patients as a result of the text messages about HIV testing. Practices were provided with a 'patient contact form' which allowed surgery staff to track the following:



- Date of query
- Who dealt with the query (receptionist; practice manager; GP; other, please specify)
- Nature of concern (in as much detail as possible while keeping the identity of the patient anonymous)
- Length of time spent on the query

GP practices were informed of the requirement to complete a patient contact form when they were first approached to take part in the T4T campaign.

GP practice staff knowledge and attitudes around HIV

To gather information about how familiar staff at practices which participated in the T4T campaign were with modern messages around HIV, an online survey called 'Knowledge of and attitudes towards HIV among GP surgery staff' was created and sent to them. This was sent after practice staff had sent text messages out, with the original intention that training would have preceded this survey.

The questionnaire was aimed at all GP surgery staff. This included GPs, practice managers, reception staff, nurses, administration staff and all other staff working at the practice - whether their role was patient-facing or not.

The survey consisted of three parts:

- **Part 1** Some information about the responder and their role
- Part 2 Knowledge and attitude towards HIV (13 questions in total)
- Part 3 Texting for Testing campaign (10 questions about the staff member's opinion and feedback about the campaign if they were aware of it)

The survey was distributed to GP practice staff after their practice had sent text messages. Therefore our data only provide information on knowledge and attitudes post-intervention.

Data analysis

All quantitative data are reported as frequencies and percentages or means, standard deviations, and min/max values. Qualitative data (e.g. from patient query forms) were coded into themes using a mixture of a deductive framework approach (i.e. queries were grouped into positive, negative, or neutral) and inductive thematic approach where the types of queries were coded. A content analysis of these codes will also be used to denote the relative frequency of each type of query.

The analysis of the Sexual Health Wales data comprised two analysis sets:



Analysis set 1: Within this analysis, we restricted the dataset to test ordering events occurring within Primary Care clusters where text messages were sent over the 8 weeks following text messages being sent. The comparison of interest will be between individuals who answered Yes / No to:

"Some GP practices in Cardiff and Vale University Health Board have joined a project sending text messages to all registered patients over 16 years of age inviting them to have an HIV test. Are you requesting a test kit as a result of receiving a text message from your GP?"

We restricted the dataset in this way in order to compare groups of individuals who would be similar in terms of time and location.

Analysis set 2: Within this analysis, we restricted the dataset to test ordering events occurring within Primary Care clusters where text messages were sent. The comparison of interest will be between test ordering events in the eight weeks after text messages being sent and eight weeks prior to text messages being sent (regardless of whether an individual indicated that they had received a text from their GP).

We restricted the dataset in this way to compare the change in nature of test ordering after the T4T project was implemented in a particular area (as the texts were also accompanied by a communications campaign).

For each analysis set, we compared the number of test orders, type of test orders, demographic profile of individuals ordering tests, and test outcomes.

Frequencies (with denominators where required to provide clarity) are presented alongside percentages and means are provided alongside standard deviations. All frequencies less than 5 are noted as "<5" in order to minimise identifiability.

Data privacy

This was a service improvement project and therefore no ethics approval was required. One cluster insisted on a Data Protection Impact Assessment (DPIA) because text messages were being sent without prior consent from patients. A DPIA was completed on behalf of the Primary Care cluster by the T4T project worker. As no personally identifiable information was being collected or shared with the evaluation team, and the link was to an existing service provided by Public Health Wales, this was deemed a low risk activity. The completed DPIA was sent to a Data Protection Officer at Digital Health Care Wales and subsequently approved. Confirmation of this approval was sent back to the cluster lead of the requesting Primary Care cluster after which the cluster agreed to participate in the T4T project.



Findings

Primary Care cluster and GP practice engagement

Between April 2022 and November 2022, all nine Primary Care clusters were contacted to take part in the T4T project. In total, practices in six Primary Care clusters took part.

Engagement strategies initially involved contact being made at the Health Board level with a request to attend a cluster meeting in order to present an overview of the project. Cluster meetings were attended for three clusters. Subsequently, other approaches included individual meetings with cluster leads and practice staff (who then advocated for the project to the rest of the cluster), support from locality leads / cluster support officers, and e-mail engagement. Often multiple strategies were used to enrol a cluster (and subsequently practices). For the three clusters not enrolled, no cluster-level or practice-level meetings occurred (a cluster lead meeting was held for one cluster). All meetings were virtual, rather than in-person (Table 1).

	Meetings			Othe		
Cluster	Cluster level	With cluster lead	With practice staff	From locality lead	From cluster support officer	Outcome
Western Vale	✓					Enrolled
Cardiff East			✓	\checkmark		Enrolled
Cardiff North	\checkmark	✓			\checkmark	Enrolled
Cardiff South West			\checkmark		\checkmark	Enrolled
Central Vale	✓	✓			✓	Enrolled
Cardiff West				\checkmark		Enrolled
Cardiff City & South				\checkmark		Not enrolled
Cardiff South East		~		~		Not enrolled
Eastern Vale				~		Not enrolled

 Table 1: Summary of Primary Care cluster engagement strategies and outcome

One of the non-participating clusters cited capacity issues with their practices as a reason for not participating. Despite early engagement and clear deadlines, another indicated that they wanted to take part after the enrolment phase ended. The final non-participating cluster cited opposition by some influential practices within their cluster to the campaign as a reason for not participating (though it was not a requirement for all practices within a cluster to take part for that cluster to take part).



Of the six clusters, 20/41 (49% of practices from participating clusters) GP practices sent text messages. There are 60 practices across all nine Primary Care clusters in Cardiff and Vale (practices split across multiple sites (i.e. "branch practices") were counted as a single practice), and so one-third of all practices in Cardiff and Vale engaged with this project. The number of practices enrolled within a cluster ranged from 1 (Cardiff West) to 5 (Cardiff North and Cardiff South West), and the total list size across participating practices was 207,766 (approximately 47% of the all individuals registered with a GP practice in Cardiff and Vale).

Text messages sent

In total, 139,539 text messages (67% of registered patients) were sent from the 20 participating GP practices, with practices ranging in the number of text messages sent from 2,410 to 13,356 and the percentage of registered patients receiving a text message within a practice ranging from 45% (2410/5350) to 89% (6234/6986).

Table 3 highlights that texts were sent in two waves: August 2022 (Wave 1), and mid-November to early December 2022 (Wave 2).

From the outset, we were mindful that contact details of patients within GP practices may not be upto-date and there would be variability between practices regarding how regularly they request updated contact details from their patients. Furthermore, some patients may have moved out of area but still sent a text message. We were therefore only able to measure the number of texts sent and not whether they were received by the intended patient nor whether that patient was still a member of the participating GP practice.

Sexual Health Wales Test and Post service link clicks

Over the eight weeks following text messages being sent, there were 4,402 unique link clicks (i.e. 4,402 individuals clicked the link contained within their text message, corresponding to 3.2% of all individuals who were sent a text message). This ranged between practices from 0.4% (27/7230) to 4.3% (104/2410). Of all individuals clicking the link within the first eight weeks, the majority (78.8%, ranging between practices from 69.4% to 88.9%) clicked on the same day that they received a text message, with 88.8% (ranging between practices from 80.3% to 96.3%) of individuals clicking within the first week.

Test ordering events and test outcomes

Overall, the dataset provided by Public Health Wales contained 19,880 test ordering events from residents in Cardiff & The Vale from 1st June 2022 (i.e. eight weeks prior to the first text messages being sent) and 31st January 2023 (i.e. the end of the data collection period).



Analysis set 1 – comparing test ordering events from individuals residing in primary care clusters participating in the T4T project who did / did not receive a text from their GP about HIV testing over the first eight weeks of texts being sent

Within Primary Care clusters where text messages were sent, there were 2,483 test ordering events occurring in the eight weeks following text messages being sent. Of these, 418 individuals stated that they had received a text message from their GP, 1,991 said they did not, and 74 preferred not to say. Therefore, analysis set 1 will compare the 418 individuals who did receive a text message to the 1,991 individuals who did not (total N = 2,409).

Table 3 highlights the number of test ordering events by Primary Care cluster and text message status. While overall, 17% of test ordering events were associated with a text message from a GP, this ranged from 13% (Cardiff North, Cardiff West) to 32% (Western Vale) between clusters.

Primary Care	Cluster engagement		Date first texts were	Practice patient engagement	Number of test ordering events	rec fro	Text eived m GP
cluster	N practices	N texts	sent	N individuals clicking link	N	N	%
Cardiff East	3	28615	02/08/2022	1025	151	32	21
Cardiff North	5	36706	18/11/2022	1009	881	116	13
Cardiff South West	5	28381	12/11/2022	822	466	96	21
Cardiff West	1	7386	02/12/2022	256	292	38	13
Central Vale	3	18362	30/11/2022	627	429	76	18
Western Vale	3	20089	02/08/2022	663	190	60	32
Total	20	139539	02/08/2022	4402	2409	418	17

Table 3: Test ordering by Primary Care cluster, cluster engagement, and text message status

Table 4 highlights the demographic profiles of individuals by text message status. Those who had received a text message and ordered tests were older than those who had not received a text message (mean age 37 years compared to 28 years). There were proportionately higher number of test orders from individuals of "Asian or Asian British - Bangladeshi/Indian/Pakistani/Other" ethnicity (6% in those who received a text compared to 2% in those who had not) and also from individuals of "Black or Black British - African/Caribbean/Other" ethnicity (6% compared to 2%). Individuals who indicated that they had received a text were less likely to engage in oral sex than those who had not (57% compared to 74%). Orders for chlamydia/gonorrhoea (CT/GC) tests were lower in those who indicated that they had received a text message than in those who did not (85% compared to 98%) The texts only encouraged HIV testing rather than testing for other STIs, and so this implies that



338/398 (85%) of those clicking through after receiving a text about HIV testing opportunistically ordered a test for chlamydia/gonorrhoea. Blood borne virus (BBV; hepatitis B, hepatitis C, HIV, syphilis) test ordering was higher in those who received a text than in those who did not (85% compared to 59%). This provides further evidence that the text messages increased uptake of HIV testing (and opportunistically increased testing for other BBVs).

		Did not	receive a	Pocoin	ad a toxt
			text	Receive	ed a text
		Mean	Min,	Mean	Min,
		Wiedh	max	Wicall	max
	Age	28	16, 66	37	16, 78
		Ν	%	Ν	%
	Female (including trans woman)	1214	61.0	243	58.1
Gender	Male (including trans man)	743	37.3	163	39.0
Genuer	Non-binary in another way	19	1.0	7	1.7
	Would rather not say	15	0.8	5	1.2
Current	Missing	11	0.6	<5	<1.2
gender	No	27	1.4	<5	<1.2
the same	Yes	1946	97.7	412	98.6
as that					
assigned	Would rather not say	7	0.4	<5	<1.2
at birth					
	Asian or Asian British -				
	Bangladeshi/Indian/Pakistani/	39	2.0	25	6.0
	Other				
	Black or Black British -	36	1 8	24	57
Ethnic	African/Caribbean/Other	50	1.0	27	5.7
group	Mixed - White and Asian/White, Black	97	49	14	2 2
	African/ White, Black Caribbean/Other	57	4.5	14	5.5
	White - British/Irish/Other	1766	88.7	341	81.6
	Other ethnic group - Chinese/Other	16	0.8	6	1.4
	I don't want to say	37	1.9	8	1.9
	Has anal sex	482	24.2	107	25.6
	Has oral sex	1482	74.4	238	56.9
Has vaginal sex		1776	89.2	371	88.8
Previous HIV diagnosis		8	0.4	0	0.0
Previous hepatitis B diagnosis		<5	<0.3	<5	<1.2
Previous hepatitis C diagnosis		<5	<0.3	5	1.2
	Previous syphilis diagnosis	44	2.2	7	1.7
	Ordered a CT/GC test	1891	97.9	338	84.9
	Ordered a BBV test	1141	59.2	340	85.4

Table 4: Demographic profile of individuals ordering tests by text message status

Frequencies of less than 5 that relate to individuals have been obscured to minimise identifiability.



Table 5 describes test returns and test outcomes by text message status. Test returns (in the eight week observation period) were lower in those who received a text than in those who did not (39% compared to 50%). Overall positivity rates were lower in those who received a text than in those who did not (6% compared to 10% of those returning a test). Positivity rates for chlamydia and gonorrhoea were lower in those who received a text than in those who did not (chlamydia: <3% compared to 7%; gonorrhoea <3% compared to 4%). There were no new HIV reactive tests in those who had received a text compared to 1%) and syphilis (<3% compared to <1%) reactive tests were proportionately higher in those who had received a text, but absolute numbers were small. There were no new hepatitis C reactive tests in those who had received a text and fewer than five new reactive tests in those who had not.

	Did not re	eceive a text	F	Received a text
	N	%	N	%
Returned a test kit ¹	986	49.5	162	38.8
	N	%	N	%
Tested positive/reactive for at least one STI/BBV ^{1, 2}	103	10.4	9	5.6
Tested positive for chlamydia ¹	63	6.7	<5	3.1
Tested positive for gonorrhoea ¹	35	3.7	<5	3.1
Equivocal test result ¹	<5	<0.9	0	0.0
Reactive HIV test ^{1, 2}	8	1.4	0	0.0
Reactive hep B test ^{1, 2}	5	0.9	<5	3.1
Reactive hep C test ^{1, 2}	<5	<0.9	0	0.0
Reactive syphilis test ^{1, 2}	<5	<0.9	<5	3.1

Table 5: Test returns and results by text message status

1. Denominator is those who ordered a test for the corresponding STI/BBV and returned a kit within eight weeks of the first text messages being sent from the corresponding Primary Care cluster. 2. Excluding those already known to have the corresponding BBV. Frequencies of less than 5 that relate to individuals have been obscured to minimise identifiability.

Analysis set 2 – within Primary Care clusters participating in T4T, comparing test ordering events eight weeks prior to texts being sent to the eight weeks after texts being sent Within Primary Care clusters where text messages were sent, there were 2,483 test ordering events occurring in the eight weeks following text messages being sent and 2,168 test ordering events occurring in the eight weeks prior to text messages being sent. Therefore, analysis set 2 will include 4,651 test ordering events.

Table 6 highlights the number of test ordering events in the eight weeks prior to text messages being sent out and compares these to the eight weeks following text messages being sent. Overall, there



was an absolute increase between these periods of 315 test ordering events (relative increase 15%). This relative increase varied between Primary Care clusters from 9% (Cardiff West, where one practice sent 7,386 text messages and there were 256 click throughs to the SHW website) to 35% (Western Vale, where three practices sent 20,089 text messages and there were 663 click throughs to the SHW website).

Primary Care cluster	Cluste Primary engagemen Care cluster		Practice patient engagement	Number of test ordering events prior to texts	Number of test ordering events after texts	Absolute difference	% change
	N practices	N texts	N individuals clicking link	N	N		
Cardiff East	3	28615	1025	129	159	30	23.3
Cardiff North	5	36706	1009	820	901	81	9.9
Cardiff South West	5	28381	822	442	480	38	8.6
Cardiff West	1	7386	256	279	304	25	9.0
Central Vale	3	18362	627	352	442	90	25.6
Western Vale	3	20089	663	146	197	51	34.9
Total	20	139539	4402	2168	2483	315	14.5

Table 6: Test ordering by Primary Care cluster, cluster engagement, and time period

As new questions were introduced to the Sexual Health Wales Test and Post service while the T4T project was happening, some demographic details could not be directly compared over time (specifically: gender assigned at birth and ethnic group, and previous hepatitis B status). As indicated by Table 7, the average age of individuals ordering tests increased after text messages were sent from 27 years to 29 years. Additionally, there was a decrease in the percentage of those engaging in anal sex (from 27% to 25%) and oral sex (from 76% to 71%). Ordering of CT/GC tests decreased from 98% to 96% and ordering of BBV tests increased from 60% to 63%.



	Pre text messages			Post text
				messages
	Moon	Min,	Moon	Min,
	IVICALI	max	IVICAL	max
Age	27	16, 74	29	16, 78
	Ν	%	Ν	%
Male (including trans man)	786	36.3	938	37.8
Female (including trans woman)	1337	61.7	1492	60.1
Non-binary in other way	21	1.0	26	1.0
Other	<5	<0.2	0	0.0
Would rather not say	22	1.0	27	1.1
Has anal sex	594	27.4	612	24.6
Has oral sex	1644	75.9	1768	71.2
Has vaginal sex	1901	87.7	2217	89.3
Previous HIV diagnosis	13	0.6	8	0.3
Previous hepatitis C diagnosis	<5	<0.2	7	0.3
Previous syphilis diagnosis	58	2.7	53	2.1
Ordered a CT/GC test	2072	97.6	2294	95.7
Ordered a BBV test	1271	59.9	1515	63.3

 Table 7: Demographic profile of individuals ordering tests by time period

Frequencies of less than 5 that relate to individuals have been obscured to minimise identifiability.

Table 8 describes test returns and positivity outcomes. Test returns were higher prior to text messages being sent out compared the period after texts were sent out (67% compared to 48%). From the tests returned, positivity/reactivity rates were also higher in the eight weeks prior to texts being sent out (13% compared to 10%). Chlamydia (8% compared to 6%) and gonorrhoea (5% compared to 4%) positivity was higher in the eight weeks prior to texts being sent out. Reactive BBV tests were higher in the eight weeks after text messages were sent out. For example, 1% of HIV tests were reactive compared to <0.3% of HIV tests prior to text messages being sent, but overall numbers were small.



Table 8: Test returns and results by time period

	Pre te	ext messages	Post text message		
	N	%	Ν	%	
Returned a test kit	1445	66.7	1181	47.6	
	N	%	Ν	%	
Tested positive/reactive for at least one STI/BBV ^{1, 2}	184	12.7	117	9.9	
Tested positive for chlamydia ¹	113	8.1	67	6.1	
Tested positive for gonorrhoea ¹	74	5.3	39	3.5	
Equivocal test result ¹	7	0.5	<5	<0.4	
Reactive HIV test ^{1, 2}	<5	<0.3	8	1.1	
Reactive hep B test ^{1, 2}	8	0.9	8	1.1	
Reactive hep C test ^{1, 2}	<5	<0.3	<5	<0.4	
Reactive syphilis test ^{1, 2}	<5	<0.3	<5	<0.4	

1. Denominator is those who ordered a test for the corresponding STI/BBV and returned a kit 2. Excluding those already known to have the corresponding BBV. Frequencies of less than 5 that relate to individuals have been obscured to minimise identifiability.

Patient feedback to GP practice staff

Overall, 14/20 (70%) participating GP practices received patient queries following the sending of text messages, and ten of these practices returned a patient query log (in three of the four remaining practices the log was not completed and in the remaining practice a completed form was not returned).

From the ten practices returning their query logs, there were 48 queries in total – with 47 of these being via telephone and one via e-mail. Across these ten practices, 114,621 text messages were sent, and so there was one patient query for every 2,388 text messages sent. The number of queries varied between practices, with one practice receiving one query for every 334 text messages sent and another receiving one query for every 13,356 text messages sent.

Impact on GP practice staff workload

Most queries (40/48) were handled by reception staff, with the remainder handled by practice nurses (six queries), and practice managers (two queries). The average length of time practice staff spent handling queries was 3 minutes and 41 seconds (range: 30 seconds to 36 minutes, with 36 minutes being a major outlier – 45/48 queries were handled in six minutes or less). Furthermore, the majority of queries were received within the first two days of text messages being sent (23 queries on the same day, 11 the day after). All but one of the queries occurred within the first week of text messages being sent out.



Nature of queries

The majority of patient queries received by practices were of a neutral nature (35/48, 73%). These included information requests as well as some patients querying whether the text messages were directed at them. The information requested related to clarification that the text message was not a scam (18 queries related to this), clarification around why they had received this particular text message (10 queries related to this), and questions about the ordering process (three queries related to this).

The remaining 13 queries were of a negative nature. Of these:

- One patient complaint that their details were being used for marketing purposes
- One patient swore at practice staff after requesting information and then subsequently ended the call
- Seven patients raised concerns about the nature of the text message as they thought it was inappropriate for them to be receiving such a message
- Four patients expressed negative feelings towards receiving the text message (e.g. either feeling "annoyed", "upset", or "anxious")

There were two instances where retired healthcare professionals contacted practices to express concerns around the nature of the text message. Concerns related to perceptions that the message "assumed what activities they may get up to" or "may scare older people".

Where concerns were raised about the appropriateness of the text message, this was frequently made in relation to the older nature of the recipient (i.e. four out of the seven instances where appropriateness of the message was raised).

GP practice staff knowledge and attitudes around HIV

Between 22nd November 2022 and 29th January 2023, the main point of contact at each participating GP practice was asked to distribute the "Staff knowledge and attitudes around HIV survey" to all of their colleagues within their practice. The survey was left "live" until 13th March 2023. In total, 84 responses were received across all six participating Primary Care clusters (an average of 4.2 responses per participating GP practice). The number of responses varied across Primary Care cluster from six (Western Vale) to 20 (Cardiff North). Responses were not given for all questions. This questionnaire was originally intended to be preceded by training for practice staff on modern HIV messages and sexual health / HIV signposting across Cardiff and the Vale of Glamorgan. However, no practices took up the offer and training and therefore these findings represent a "baseline" level of knowledge for practice staff (NB. "HIV 101" leaflets were distributed to all practices prior to text messages being sent).



We obtained responses from practice staff in various clinical and non-clinical roles, with 33/83 responses from staff in clinical roles (40%, including GP, practice nurse, and staff in other clinical roles), and the remaining 50 responses from staff in non-clinical roles (60%, including reception staff, administrative staff, practice manager (or deputy), and other non-clinical roles). Figure 4 provides a breakdown of staff role.



Figure 4: Responses to staff knowledge and attitudes around HIV by staff role

Knowledge of HIV, pre-exposure prophylaxis, post-exposure prophylaxis, and the U=U message

The majority of staff correctly answered the question about the life expectancy of a person living with HIV (77/84, 92%), with the remaining responders indicating that they did not know the answer. For the question regarding the transmission risk of a person living with HIV who has an undetectable viral load, the majority of staff either answered this incorrectly (27/84, 32%) or did not know the answer (18/84, 21%). The majority of responders correctly answered that a person living with HIV can still conceive and have children who are HIV-negative (57/84, 68%). Figure 5 provides a breakdown of these responses.





Figure 5: GP practice staff knowledge about living with HIV

Few GP practice staff had heard of the U=U slogan (9/84, 11% - one of whom had heard of it but did not know what it was). Awareness of PrEP and PEP was higher, with 35 (42%) responders knowing about PrEP and an additional seven responders (8%) having heard of it but not knowing what it was, and similarly 33 (39%) knowing about PEP and an additional 11 (13%) having heard of it but not knowing what it was (Figure 6).



Figure 6: GP practice staff awareness of modern HIV prevention tools and messages



Attitudes towards patients living with HIV

Table 9 outlines responses around attitudes towards patients living with HIV. Overall, there were high levels of uncertainty around HIV transmission risks and low levels of confidence around talking to practice patients about their HIV status. Practice staff who responded to the question about whether they feel at risk of HIV transmission when treating a patient generally responded "No" (43/47, 92%). Two-thirds of responders did not think that special infection control precautions were needed when a people living with HIV was routinely consulting in practice. However, one-third either responded "Yes" to this question (11/83, 13%) or "Don't know" (17/83, 20%). Of the 11 responders answering "Yes" to the question about special infection control precautions, 10 people provided further detail around the types of precautions they thought may be necessary. These included ensuring gloves were worn when taking blood, double bagging bloods, using yellow stickers to alert other staff members to the risk, and that staff should be made aware of the person's HIV status prior to a consultation (particularly in the case where blood was being taken). Where further elaboration was given, responders clarified that measures were particularly related to when blood was being taken.

One responder highlighted that the confidential nature of HIV data (and in particular the fact that it is not routinely shared with GPs) created uncertainty when it came to managing patients living with HIV

"Because levels are monitored through a clinic at CRI and are confidential, we are not sure if their levels are undetectable and therefore untransmittable. If results are undetectable then I would not feel at risk of developing HIV."

Question		Yes		No	I don'	't know
Question	n	%	n	%	n	%
If you get a needle stick injury from a						
person living with HIV whose viral	5	G	25	10	10	ΓC
load is undetectable, will you get		0	55	42	45	52
HIV? [N=83]						
Would you feel confident talking to						
practice patients about their HIV	37	44	33	39	14	17
status?						

Table 9: Practice staff attitudes towards patients living with HIV



Iechyd Cyhoeddus Cymru Public Health Wales

Do you feel at risk of HIV						
transmission when treating people	2	C	10	02	1	2
living with HIV (if applicable to role)?	5	0	43	92	L	Z
[N=47]						
Do you think that a person living with						
HIV needs special infection control	11	12		67	17	20
precautions when routinely	11	15	22	07	1/	20
consulting at your practice? [N=83]						

Training needs of practice staff

Of the 83 staff who responded to the question about training needs, 45 (54%) indicated that they would like to receive more training around HIV. This could identify a need that could have been met within this project but was not taken up at the outset, or conversely a need identified following completion of the project and the staff survey. Twenty staff shared ideas for the type of training they would like to receive, with main areas listed below:

- Transmission and management
- Treatment and monitoring
- Interactions between HIV treatment and other treatments
- PrEP and PEP
- Undetectable viral load
- Risk factors for other diseases
- Pastoral care
- Information to share with staff regarding how to handle blood samples belong to people living with HIV
- How to speak to patients about their HIV status
- Having open discussions and overcoming HIV-related stigma

Awareness of the T4T project and perceived impact of the project on staff's HIV knowledge

Two-thirds of staff had heard about T4T (56/84) and 81% of staff knew that their practice had taken part (68/84).

Of the 68 who knew that their practice had taken part in the T4T project, the vast majority (62/68, 91%) indicated that their knowledge about HIV had not changed as a result, with the remaining six responders (9%) indicating that their knowledge had increased. While the majority of staff were



aware that their practice had taken part in the T4T project, 31/68 (46%) saw no materials associated with the project either in the practice (e.g. posters, leaflets, other printed materials) or online (e.g. social media posts, practice website information, news articles).

The majority of staff who responded to the question thought that the T4T project should be run routinely (55/65, 85%), with 48/62 (77%) responders indicating that it should run annually. Other feedback about the project and how it could be improved in future are detailed below:

- Give the project some publicity before launching suggestions came in the form of media campaigns (e.g. social media, TV advertisements), printed materials in practices
- Provide training to staff and ensure that all staff are aware of the project beforehand
- Make it clear in texts that the message is not in relation to any blood tests a patient may be awaiting results for

One responders felt that patients should be asked for their consent to receive information about HIV "in order to avoid panic and confusion". However, other responders were more positive, stating "I think the texting out to all patients was a great idea so would not change anything". Another responder shared their initial worry that the project would add extra work at an already busy time, but was supportive given that this was not the case: *"I was worried how much extra work it would generate for the reception staff at an already busy time but there wasn't much so yes I would support doing it again"*.



Discussion of Findings

Cluster and GP engagement

Although the project initially had ambitions to include all nine clusters and the practices within, we were aware from our pilot that practices would vary widely in both their interest and capacity for new projects; many practices in Cardiff and the Vale of Glamorgan are at or over capacity in patient numbers while coping with staffing shortages and levels of enthusiasm varied from a keen interest in participating to a firm conviction that sexual health testing was a job for public health and not GPs in primary care settings.

Levels of current knowledge of HIV also varied considerably and thus wherever possible we tried to meet with whole clusters to discuss the project, enabling GPs to discuss between themselves the pros and cons. Cluster level engagement, practice staff engagement and cluster support officer engagement were all associated with participation. In non-participating clusters we experienced difficulty getting meetings with anyone but the locality lead from the local health board.

While these were indicators, meetings at all levels were helpful. There was no single entry point to engage practices, though cluster meetings certainly helped. Enrolment took longer than expected and happened in two waves, with one cluster and another practice indicating an interest only after the texting stage had ended.

As the findings show, while we only managed to include a third of all practices across the health board, these practices covered almost half of all registered patients in Cardiff and the Vale of Glamorgan. This means that a greater number of the larger practices participated and while it is unclear what the key factor was in this, our greater effort to include them or their greater capacity to undertake side projects, it suggests that single handed practices which are more common in rural and deprived areas may need greater levels of support to participate in any further iteration.

Text messages

Texting patients, usually about pathological test results, appointment reminders and vaccines, is a relatively recent development for GPs in Cardiff & Vale and their ability to use it as a tool depends heavily on the IT system adopted by the practice. Not all Welsh GPs are familiar with using text messaging for any purpose and thus some education was required with a minority of participating GPs. In other neighbouring health systems, texts are now widely used for health promotion and screening campaigns by GPs and texting may be something that the Welsh Government might consider supporting more widely as both educational and cost-saving.



Costs of texting generally come out of the practice's annual budget, though costs for specific exercises can also come from cluster funds (as in the case of the original pilot). The texts are bought in bundles and for the purpose of this project we funded texting costs. Identification of an appropriate budget for texts, whether cluster money or new money, is likely to be a core component of supporting any GP interest in reiteration of the exercise. A number of practices identified the need, for their local population, of sending messages in both Welsh and English which doubles costs in this area, but is a requirement locally under the Welsh Language Act.

The number of patients able to be reached by text message varied widely between practices from 45% to 89%. According to 2017 Ofcom data, 95% of urban Welsh adults own a mobile phone (90% in rural areas) and while there may be some variation due to deprivation, it is also likely that not all participating practices held full up to date records of all patient contact data. This is unsurprising given the pressures on GPs, particularly in the past few years, but is a relevant concern in an age of increasing digital communication and a vital part of this exercise. Welsh NHS plans to co-ordinate data between different clinical systems that currently exist as silos should help ensure GP surgeries have contemporaneous records.

Initially we had expected whole clusters to participate together in a single mass texting wave but rapidly realised that this was impractical in some cases; not all practices in every cluster wanted to, or felt they had the capacity to, participate. Allowing the practices that were most enthusiastic (Cardiff East and Western Vale) to go in a first wave encouraged others who were hesitant to participate in a second wave once they saw that the exercise caused minimal disruption. However, doing more than one round of texting had associated workload increases for project staff and supervisors.

Sexual Health Wales click throughs

The percentage of patients clicking through as a result of getting a text remained steady from the pilot at 3.2%, as did the pattern of the majority doing so on the day of receipt and almost all within the first week. Click throughs were monitored for 8 weeks as a small number of people waited longer before investigating the link. Of the almost 140,000 texts sent, 1.7% resulted in tests being ordered though we were unable to compare data with the pilot where this data was incomplete. Future resource planning may find our patterns showing expected levels of take-up helpful.

Ordering events and outcomes

In order to examine if those responding to the text prompt differed from the usual clients and level of requests of the Sexual Health Wales STI and BBV testing services, we compared test ordering in two ways: for the eight weeks before and after both waves of texts went out and between those



who said they were responding to a GP text and others in the eight weeks after texts went out. Comparison of the two sets of findings helped to establish whether they were robust.

Users of the postal testing service generally find it via a friend (32%), through a web search (34%) or through a very wide range of other means including clinician referral, previous visits and use of the C-card or condom scheme on the same site. A substantial number are also referred from sexual health clinics which refer asymptomatic people in order to prioritise those who know they have been exposed to an STI or have symptoms requiring urgent consultation. A wide range of STI and BBV tests are offered and one of the unexpected outcomes of this project was that most people following the HIV text link also ordered those tests unprompted, resulting in just under 6% being newly diagnosed with a range of other STIs and BBVs. Our findings indicate potential for a wider use of texting support to reduce sexually transmitted infections..

There was an identifiable increase in test ordering of around 15% during the texting exercise, with accompanying differences in demographics which indicate that those nudged by GP texts to test were slightly older, slightly less adventurous in their sexual habits and more likely to be from Black, Asian or mixed ethnicities. These results held true across both forms of comparison, showing that the age differential was not dependent upon student populations being in or out of residence. GPlinked test orders tended to be for the entire suite of tests and the ensuing results reduced the overall percentage of people found to have gonorrhoea and chlamydia but increased the percentage found to have blood borne viruses such as syphilis and Hepatitis B. This proves the original concept that sending testing messages to the general public reaches people from social groups who might not have considered it previously or had been less likely to be exposed to information about HIV and sexual health.

The rate of return of tests ordered was lower in the GP group and also lower than return rates in postal and self-testing schemes elsewhere which are boosted by a "nudge" system whereby those not returning their test or result within a set period are re-contacted and asked to do so, or if they need help. Use of a prompt increases test returns and should be considered for future inclusion within the Sexual Health Wales postal testing system.

The increase in tests ordered from each cluster was split between three with less than 10% increase each and three with much higher increases (35% in Western Vale). There is no clear link between demographic data and these differences and so it is difficult to draw conclusions beyond that no assumptions should be made about where the most impact is to be had. It was notable that the two clusters in the first wave, despite their very different demographic profiles, were both in the top three increased rates of ordering.



Public Health

Though there were no new HIV diagnoses after the first pilot, this was not the only outcome aimed for. Receiving the test offer was in itself a starting point for many conversations that we were aware of in pubs and homes, with friends and relatives calling to tell us they had received their offer. Discussions held with clinicians and practice staff while setting up the programme frequently included information on HIV realities; leaflets and posters were distributed in waiting rooms. A further insight, not reflected in data but experienced in dialogue, was the high number of practice staff who were unaware of the Sexual Health Wales postal testing scheme and website which was central to this project and we would recommend providing further information to all GP practices across Wales about its service.

One of our main goals was to increase HIV testing in order to normalise it as a health check with the aim of reducing stigma. Overall the increase in testing during the eight weeks following texts was 44% compared to a 6% increase in the eight weeks beforehand. This provides clear evidence that a programme of simple texting of a free postal HIV test offer to adult patients increases testing behaviours with minimal disruption to the routine of a practice while being largely acceptable to patients as is shown below.

Patient feedback

One of the major concerns in advance for practices in both the original pilot and this exercise was a fear that texting patients about anything to do with sex or sexual ill-health could result in major disruption to other work, particularly for practice reception staff. Despite evidence from the pilot, this was a common theme across all new clusters but in practice was, as then, not borne out by evidence. Although 70% of practices reported receiving one or more query as a result of the texts, the returned logs of queries from ten practices show that queries were low in number (1 for every 2388 texts), mostly brief and by phone, in the first couple of days after texts went out and could largely be handled by reception staff.

The majority, moreover, were neutral in tone and largely concerned with whether the message was for them. The texts went out in a newly post-Covid period, which may have meant that some people were sensitive to the potential meaning of medical notifications. Some of these did request basic information on HIV and so it was important to have written and electronic information to hand; materials and referral links were available on a Padlet for all staff to use, although responses suggest that this was unclear to a number of practice staff. Any future iteration should make efforts to ensure that information materials are accessible and known to all practice staff including reception.



The staff member supporting the project was also available by phone for any queries which the practice had difficulty managing but this was not required at all in practice.

A small number of respondents, some of them retired GPs themselves, felt that the messages were unsuitable for older people on the assumption that they could not be at risk of HIV. However, Cardiff Royal Infirmary, as with other clinics across Wales, sees people with HIV and other sexual health needs in their 70s and beyond. Health promotion messages about sexual health should not only aimed at the young as older people may not receive appropriate advice about sexual behaviour due to mistaken assumptions.

Staff knowledge and attitudes

Of the 84 responses to a post-texting questionnaire, the majority came from non-clinical staff but a substantial 40% were from practitioners including GPs and nurses. Both reception and clinical staff should have been alert to the texts being sent out, but one in five of the respondents said they were unaware of the exercise happening and one in three did not understand what it was, despite advance concerns about staff receiving queries and despite a suite of materials being made available.

At the start of the project, a number of practices resisted the idea of needing any training (originally a feature offered) and so written and electronic materials including leaflets and posters for GP practices were made available instead. Although it was important not to deter practice involvement by making preparation too onerous in a busy and often stressed setting, more could be done to ensure all staff are aware of such a project and why their practice is participating. All and any staff in a practice can encounter people with HIV or at risk of it and an understanding of the basic facts is vital to avoid inadvertent stigma and feel comfortable with providing basic information.

It was unfortunate that a baseline knowledge questionnaire was not administered at the start of the project, in order to not put off any participants with extra paperwork. This makes it impossible to judge any changes in staff knowledge and attitudes beyond anecdotal remarks from individuals and the self-assessment by most respondents that their knowledge had not changed. Any future iteration should contain a simple baseline questionnaire to establish knowledge and enable accurate assessment of learning and attitude change.

The overall answers given to the post-project questionnaire strongly suggest a need to update practice staff knowledge about 21st century realities of HIV at all levels. While it is understandable that they might not have heard the slogan "U=U" it was clear from a number of conversations held during the discussions that the concept of HIV treatment stopping transmission was a new one to many involved. Where the concept was understood, it led in some cases to a desire to know viral



lechyd Cyhoeddus Cymru Public Health Wales load in order to worry less about transmission (which should be near impossible with most encounters in a surgery whatever an individual's viral load). PrEP and PEP were only slightly better known to respondents at all levels.

The first three participating practices declined training at the start and this led to the offer being dropped. However, a number of texts were sent to the project worker during the project asking for support with answering factual queries and the majority of questionnaire respondents said that they would now like more training post-exercise. A follow up offer of training should be built in to any future work of this kind. It also indicates that while most felt their knowledge levels had not changed as a result of the exercise, many had realised there was more they needed to know.

Future practice staff training and support

The answers to the questionnaire indicate that if Wales is to move to shared care either for people living with HIV or people accessing biomedical HIV prevention (such as PrEP), as is intended, there is a strong need for supportive information and training for GPs and all who work with them. Many GPs are interested in shared care and data and right in that it would improve patient care to be aware of all their health needs; but this is unlikely to appeal to patients with HIV in a situation where, as answers showed, over half the respondents were unsure how to talk to people with HIV about their condition and a third thought people with HIV might or did need special infection control measures in the surgery. Education in primary care, couched in ways that can support time-poor and overstretched staff, needs to become a priority within the Wales HIV Action Plan and be addressed as a matter of urgency.

By the end of the project, staff were full of ideas for future areas of training and these are listed in the Results section. Initial resistance to the offered training appeared to be related to a combination of existing pressures and a straightforward lack of awareness of the need for it due to how outdated some people's information might be. An assessment of knowledge levels of basic HIV messages should be done and taken into account at an early stage of any future iteration of the project. Any training offered should be minimally intrusive and easy to access.

Despite all the concerns expressed initially about pressures and appropriateness of messages etc. 85% of respondents were in favour of reiterating the offer, many by linking it to the annual HIV Testing Week in November. They also wanted to see more publicity about HIV and more materials in their surgeries.



Key findings and recommendations for future work

Use of text recommendations from GPs increased levels of HIV testing and widened the demographics of people accessing them. While no new cases of HIV were diagnosed after the original pilot, other sexually transmitted infections and blood-borne viruses were detected. While some practices had misgivings and some even declined to send the texts, they were acceptable to the vast majority of patients and caused little disruption or extra work. Those who participated not only found it useful but supported it being done more regularly.

It would be useful to further evaluate the project in settings where it is more difficult to access sexual health clinics than in Cardiff & Vale e.g. rural settings or health boards with low levels of sexual health services.

- A programme of simple texting of a free postal HIV test offer to adult patients increases testing behaviours with minimal disruption to the routine of a practice while being largely acceptable to patients
- Sending testing messages to the general public reaches people from social groups who might not have considered it previously or had been less likely to be exposed to information about HIV and sexual health
- c. There is potential for a wider use of texting support to reduce other sexually transmitted infections
- d. The Welsh Government and NHS should consider supporting GP text messaging more widely as both educational and cost-saving
- e. Use of a prompt increases test returns and should be considered for future inclusion within the Sexual Health Wales postal testing system
- Further information should be provided to all GP practices across Wales about the Sexual Health Wales postal testing service
- g. Education in primary care, couched in ways that can support time-poor and overstretched staff, needs to become a priority within the Wales HIV Action Plan and be addressed as a matter of urgency
- Health promotion messages about sexual health should not only aimed at the young as older people may not receive appropriate advice about sexual behaviour due to mistaken assumptions
- i. Identification of an appropriate budget for texts is likely to be a core component of supporting any GP interest in reiteration of the exercise



- j. Single handed practices which are more common in rural and deprived areas may need greater levels of support to participate
- k. Future resource planning may find our patterns showing expected levels of take-up helpful
- I. Any future iteration should make efforts to ensure that information materials are accessible and known to all practice staff including reception
- m. Any future iteration should contain a simple baseline questionnaire to establish knowledge levels of basic HIV messages to enable accurate assessment of learning and attitude change
- n. A follow up offer of training should be built in to any future work of this kind



Appendix

21ST CENTURY HIV WHAT ARE THE FACTS?

HIV* IS NO LONGER A DEATH SENTENCE - YOU CAN LIVE TO A RIPE OLD AGE WITH IT

MODERN HIV TREATMENT NOT ONLY KEEPS YOU ALIVE, IT STOPS THE VIRUS FROM BEING PASSED ON YOU CAN HAVE HEALTHY, HIV-FREE CHILDREN

THERE'S EVEN A PILL TO STOP YOU GETTING HIV IN THE FIRST PLACE (PREP)

THERE'S ALSO TREATMENT (PEP) TO STOP HIV IF YOU THINK YOU'VE BEEN RECENTLY EXPOSED TO IT YOU CAN TEST BY POST FOR HIV AND OTHER CONDITIONS IN THE COMFORT OF YOUR OWN HOME TESTING, TREATMENT AND PREVENTION ARE ALL FREE FOR EVERYONE IN WALES

* HIV is the virus that can lead to AIDS - but only if you don't get tested and treated

Information from Fast Track Cardiff & Vale



HIV has changed a lot – as long as you get tested and, if you have it, get treated. And treatment has never been easier.

For most people it's one pill a day. You can carry on your everyday life, have a relationship and a family, get on with your job just like people with many other long term health conditions do. Once in treatment, you get regular health monitoring to ensure you stay well. Anvone in Wales can order a

free test kit online from Sexual Health Wales by answering a few questions and giving a mail address. It doesn't have to be

your home if somewhere else is safer, but you must give your proper mobile number. With that kit, you take a small amount of blood from a finger prick and send it off to a lab. They will contact you with your result. If it's positive for HIV, they will also help you to get confidential treatment and support from your nearest specialist clinic. And, if you'd rather, you can still test at a sexual health clinic.

"People in Wales need to hear that HIV has changed completely since the '80s. Treatment is now so good Gian Molinu, Chair of Fast Track Cardiff & Vale

www.fasttrackcardiff.wales

The biggest problem most people with HIV in Wales face these days isn't the virus - it's ignorance. Many people are still afraid of HIV or make unfair judgements about people with it. But these days people with HIV are everywhere - in Parliament, driving buses, teaching, farming and cooking. You'd never know unless they tell you, any more than you'd know someone had any other health issue.

Increasingly, people living with HIV are getting together to support each other through their worries and concerns. There are some links on the back page of this leaflet and Fast Track is working with the Welsh Government to increase support and self-help services and challenge ignorance and stigma across Wales.



"I go out for cocktails with the girls, I'm achieving what I wanted to do with my life, I'm in control and it's just a pill a day... people have this mind set about being held back but you can do anything you want" Ellie

If you or someone you know has HIV, you can find out more about support on the back of this leaflet. And whoever you are, you can help make life better for people with HIV and those who are hesitant to get tested by learning the facts about HIV and fighting fear and stigma.



Find out more about Fast Track Cardiff & Vale and what we do at www.fasttrackcardiff.wales

Get in touch with others across Wales to challenge HIV stigma and ignorance through the HIV Advocacy Network at advocacy@hiv.wales

Talk to other people with HIV at Positively UK 0207 713 0444 (or via their website) or in Terrence Higgins Trust's PLHIV community forum at www.tht.org.uk/our-services/living-well-hiv/my-community-forum

Talk about taking an HIV test and how to protect yourself against the virus at THT Direct on 0808 802 1221 or email info@tht.org.uk

Order an HIV postal test kit (for anyone in Wales) at bit.ly/hivwales (or from www.shwales.online and click on the "post and test" header (ignore the page label, it's not just STIs or a pilot any more)

Learn more about PrEP and how to access it in Wales at prepwales.org or via THT above



Information from Fast Track Cardiff & Vale correct as of August 2022.



Iechyd Cyhoeddus Public Health

HIV 101 leaflet: English version

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HIV 101 leaflet: Welsh version

HIV YN YR 21AIN GANRIF BETH YW'R FFEITHIAU?

NID YW HIV* YN DDEDDF MARWOLAETH NAWR - GALLWCH FYW I HYN ADDAS GYDA HYN

NID YW TRINIAETH HIV MODERN YN UNIG YN EICH CADW'N FYW, MAE'N ATAL Y FEIRWS RHAG CAEL EI DROSGLWYDDO GALLWCH GAEL PLANT IACH, RHAD O HIV

MAE HYD YN OED TABLED SYDD YN AT ACHI O GAEL HIV YN Y LLE CYNTAF (PREP)

MAE TRINIAETH (PEP) HEFYD I ATAL HIV OS YDYCH CHI'N MEDDWL EICH BOD YN MYNEGI YN DDIWEDDAR

GALLWCH CHI BROFI DRWY'R POST AM HIV AC AMODAU ERAILL YNG NGHYMRU YN EICH CARTREF EICH HUN

MAE PROFI, TRINIAETH AC ATAL YN RHAD AC AM DDIM I BAWB YNG NGHYMRU

* HIV yw'r firws a all arwain at AIDS – ond dim ond os na chewch eich profi a'ch trin.



Mae HIV wedi newid llawer – cyn belled â'ch bod yn cael prawf ac, os oes gennych, cael eich trin. Ac ni fu triniaeth erioed yn haws.

I'r rhan fwyaf o bobl mae'n un tabled y dydd. Gallwch chi barhau â'ch bywyd bob dydd, cael perthynas a theulu, bwrw ymlaen â'ch swydd yn union fel pobl â llawer o gyflyrau iechyd hirdymor eraill gwneud. Unwaith y byddwch yn cael triniaeth, byddwch yn cael monitro iechyd rheolaidd i sicrhau eich bod yn cadw'n iach.

Gall unrhyw un yng Nghymru archebu pecyn prawf am ddim ar-lein gan lechyd Rhywiol Cymru drwy ateb ychydig o gwestiynau a rhoi cyfeiriad post. Nid oes rhaid iddo fod eich cartref os yw rhywle arall yn fwy diogel, ond rhaid i chi roi eich rhif ffôn symudol cywir. Gyda'r pecyn hwnnw, rydych chi'n cymryd ychydig bach o waed o bigiad bys ac yn ei anfon i labordy. Byddant yn cysylltu â chi gyda'ch canlyniad. Os yw'n bositif o HIV, byddant hefyd yn eich helpu i gael triniaeth a chymorth cyfrinachol gan eich clinig arbenigol agosaf. Ac, os byddai'n well gennych, gallwch chi brofi mewn clinig iechyd rhywiol.

"Mae angen i bobl yng Nghymru glywed bod HIV wedi newid yn llwyr ers yr '80au. Mae'r driniaeth bellach mor dda fel y gallaf nid yn unig fyw bywyd llawn ond mae'n atal o drosglwyddo'r firws."

Gian Molinu, Cadeirydd Fast Track Caerdydd a'r Fro

www.fasttrackcardiff.wales

Nid y feirws yw'r broblem fwyaf sy'n wynebu'r rhan fwyaf o bobl â HIV yng Nghymru y dyddiau hyn – anwybodaeth ydyw. Mae llawer o bobl yn dal i ofni HIV neu wneud dyfarniadau annheg am bobl ag ef. Ond y dyddiau hyn mae pobl â HIV ym nhobman – yn y San Steffan, yn gyrru bysiau, yn dysgu, yn ffermio ac yn coginio. Fyddech chi byth yn gwybod oni bai eu bod yn dweud wrthych, dim mwy nag y byddech chi'n gwybod bod gan rywun unrhyw broblem iechvd arall.

Gwybodaeth gan Fast Track Caerdydd a'r Fro

Yn gynyddol, mae pobl sy'n byw gyda HIV yn dod at ei gilydd i gefnogi ei gilydd trwy eu gofidiau a phryderon. Mae rhai dolenni ar dudalen gefn y daflen hon ac mae Fast Track yn gweithio gyda Llywodraeth Cymru i gynyddu gwasanaethau cymorth a hunangymorth a



"Rwy'n mynd allan am coktails gyda'r merched, rwy'n cyflawni'r hyn roeddwn i eisiau ei wneud gyda fy mywyd, fi sy'n rheoli a dim ond bilsen y dydd yw hi ... mae gan bobl syniadau bod HIV yn dal pobl yn ôl ond gallwch chi gwneud unrhyw beth rydych chi eisiau" Ellie

herio anwybodaeth a stigma ledled Cymru.

Os gennych chi neu rywun rydych yn ei adnabod HIV, gallwch gael rhagor o wybodaeth am gymorth ar gefn y daflen hon. A phwy bynnag ydych chi, gallwch chi helpu i wneud bywyd yn well i bobl â HIV a'r rhai sy'n betrusgar i gael eu profi trwy ddysgu'r fleithiau am HIV ac ymladd ofn a stigma.



Darganfyddwch fwy am Fast Track Caerdydd a'r Fro a'r hyn rydyn ni'n ei wneud yma www.fasttrackcardiff.wales

www.fasttrackcardiff.wales

Cysylltwch ag pobl eraill ledled Cymru i herio stigma ac anwybodaeth HIV drwy'r Rhwydwaith Eiriolaeth HIV ar advocacy@hiv.wales

Siaradwch â phobl eraill sydd â HIV yn Positively UK 0207 713 0444 (neu drwy yr wefan) neu yn fforwm cymunedol PHLIV Terrence Higgins Trust ar www.tht.org.uk/our-services/living-well-hiv/my-community-forum

Siaradwch am gymryd prawf HIV a sut i amddiffyn eich hun rhag y firws ar THT Direct ar 0808 802 1221 neu e-bost info@tht.org.uk

Archebwch becyn prawf HIV drwy'r post (ar gyfer unrhyw un yng Nghymru) ar **bit.ly/hivwales** (neu o **www.shwales.online** a chliciwch ar y penawd "postio a phrofi" (anwybyddwch label y dudalen, nid STI neu yn peilot mwyach)

Dysgwch fwy am PrEP a sut i gael mynediad ato yng Nghymru ar prepwales.org neu cysylltwch â THT ar y manylion uchod





Gwybodaeth gan Fast Track Caerdydd a'r Fro yn gywir ym mis Awst 2022.

