THE CIPHA PROGRAMME

MAY 2022

Combined Intelligence for Population Health Action

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Physical Health Checks: Severe Mental Illness (SMI)

Proof of Concept

Use Case Study

May 2022

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System C & Graphnet Care Alliance

Berkshire West Integrated Care Partnership

BOB Buckinghamshire, Oxfordshire and Berkshire West Integrated Care System

Frimley Health and Care

Summary

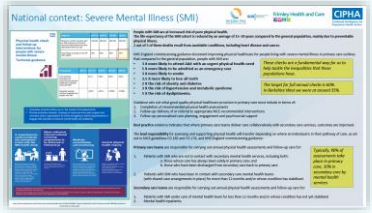
Berkshire West Integrated Care Partnership

BOB Buckinghamshire, Oxfordshire and Berkshire West Integrated Care System

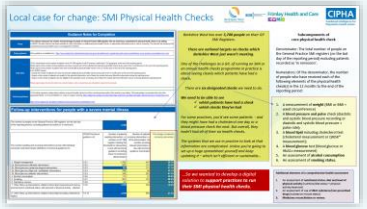
Frimley Health and Care

CIPHA
Combined Intelligence for Population Health Action

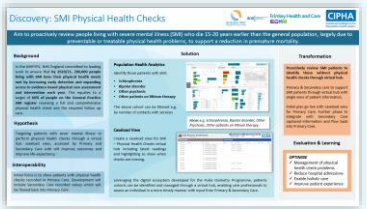
- National context



- Local case for change



- Discovery data

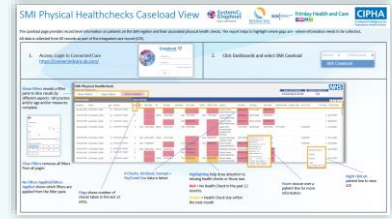


- Programme ambitions

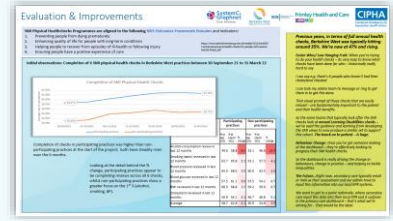
- Transformation adoption and spread

- SNOMED Codes

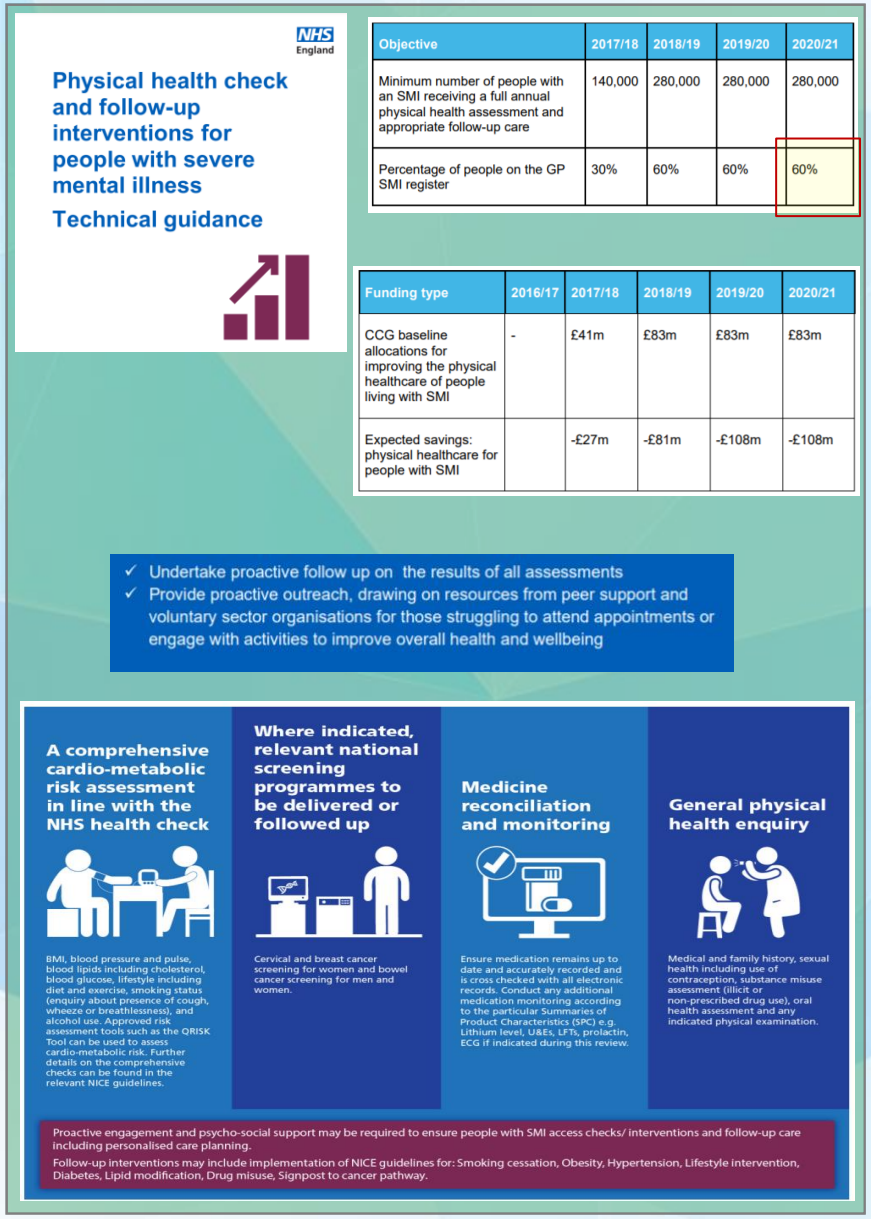
- Caseload view



- Evaluation



National context: Severe Mental Illness (SMI)



Objective	2017/18	2018/19	2019/20	2020/21
Minimum number of people with an SMI receiving a full annual physical health assessment and appropriate follow-up care	140,000	280,000	280,000	280,000
Percentage of people on the GP SMI register	30%	60%	60%	60%

Funding type	2016/17	2017/18	2018/19	2019/20	2020/21
CCG baseline allocations for improving the physical healthcare of people living with SMI	-	£41m	£83m	£83m	£83m
Expected savings: physical healthcare for people with SMI		-£27m	-£81m	-£108m	-£108m

- ✓ Undertake proactive follow up on the results of all assessments
- ✓ Provide proactive outreach, drawing on resources from peer support and voluntary sector organisations for those struggling to attend appointments or engage with activities to improve overall health and wellbeing

https://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2019/05/FINAL-Technical-definition-2019-20-physical-health-SMI-data-collection-16.04.2019-correction.pdf

People with SMI are at increased risk of poor physical health.
The life-expectancy of the SMI cohort is reduced by an average of 15–20 years compared to the general population, mainly due to preventable physical illness.
2 out of 3 of these deaths result from avoidable conditions, including heart disease and cancer.

NHS England commissioning guidance document Improving physical healthcare for people living with severe mental illness in primary care outlines that compared to the general population, people with SMI are:

- **3 X more likely to attend A&E with an urgent physical health need**
- **5 X more likely to be admitted as an emergency case**
- **3 X more likely to smoke**
- **3.5 X more likely to lose all teeth**
- **2 X the risk of obesity and diabetes**
- **3 X the risk of hypertension and metabolic syndrome**
- **5 X the risk of dyslipidaemia.**

These checks are a fundamental way for us to help tackle the inequalities that these populations have.

The target for full annual checks is 60%.
In Berkshire West we were at around 35%.

Guidance sets out what good quality physical healthcare provision in primary care must include in terms of:

1. Completion of recommended physical health assessments
2. Follow-up: delivery of or referral to appropriate NICE-recommended interventions
3. Follow-up: personalised care planning, engagement and psychosocial support

Best practice evidence indicates that where primary care teams deliver care collaboratively with secondary care services, outcomes are improved.

The **lead responsibility** for assessing and supporting physical health will transfer depending on where an individual is in their pathway of care, as set out in NICE guidelines CG 185 and CG 178, and NHS England commissioning guidance:

Primary care teams are responsible for carrying out annual physical health assessments and follow-up care for:

1. Patients with SMI who are not in contact with secondary mental health services, including both:
   a. those whose care has always been solely in primary care; and
   b. those who have been discharged from secondary care back to primary care
2. Patients with SMI who have been in contact with secondary care mental health teams (with shared care arrangements in place) for more than 12 months and/or whose condition has stabilised.

Typically, 90% of assessments take place in primary care, 10% in secondary care by mental health services

Secondary care teams are responsible for carrying out annual physical health assessments and follow-up care for:

1. Patients with SMI under care of mental health team for less than 12 months and/or whose condition has not yet stabilised
2. Mental health inpatients.

Local case for change: SMI Physical Health Checks

Berkshire West Integrated Care Partnership | BOB | Frimley Health and Care | CIPHA Combined Intelligence for Population Health Action

Guidance Notes for Completion

Scope	**This indicator measures the number and percentage of people on General Practice SMI registers who are receiving a comprehensive physical health check in any setting.** In 2020/21 the data collection has been extended to collect information on additional physical health checks, on appropriate interventions and on cancer screening. The indicator that measures the comprehensive physical health check is unchanged from 2019/20.
Policy guidance	Policy guidance is available here - https://www.england.nhs.uk/publication/improving-physical-healthcare-for-people-living-with-severe-mental-illness-smi-in-primary-care-guidance-for-ccgs/
Data items	CCGs should report on the number of patients on the GP SMI register for all GP practices within their CCG geography, at the end of the reporting period. Please report on the number of these patients who have received each of the individual six listed physical health checks at any point in the 12 months prior to the end of the reporting period. Please report on the number of patients who have received **all** six physical health checks in the 12 months prior to the end of the reporting period. From 2020/21 please: - Include the number of patients who have received the additional physical health checks at any point in the 12 months prior to the end of the reporting period. - Report on the number of patients who qualify for the specified intervention, and of these the number that were offered the intervention during the reporting period. - Report on the number of patients who are eligible for the specified cancer screening, and of these the number that were offered the cancer screening during the reporting period. Please input values into all cells which are coloured yellow; cells coloured blue are calculations based on these inputs
Technical guidance	CCGs will be required to obtain data on delivery of physical health checks from their commissioned provider of this activity in any setting. Technical guidance is provided with a list of the appropriate READ, CTv3 and SNOMED-CT codes to support reporting. https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-collections/serious-mental-illness-smi https://www.england.nhs.uk/statistics/statistical-work-areas/serious-mental-illness-smi/

Follow-up interventions for people with a severe mental illness

The number of people on the General Practice SMI registers (on the last day of the reporting period), excluding patients recorded as 'in remission'	**3,708**

The number needing and receiving interventions (in line with individual numerator and denominator definitions in technical guidance) for:	2019/20 technical guidance ref.	Number of patients needing intervention i.e. number on GP SMI register meeting the threshold for intervention in line with technical guidance excluding those 'in remission' (denominator)	Number of patients receiving intervention i.e. of the denominator, the number receiving relevant intervention in line with technical guidance (numerator)	Percentage of patients receiving intervention
1. Weight management	1.8.1	1,782	441	**24.7%**
2a. Blood pressure (lifestyle intervention)	1.8.2	660	151	**22.9%**
2b. Blood pressure (pharmacological intervention)	1.8.3	**660**	311	**47.1%**
3a. Blood glucose (high-risk / prediabetic intervention)	1.8.4	299	96	**32.1%**
3b. Blood glucose (diabetic intervention)	1.8.5	346	281	**81.2%**
4. Alcohol consumption	1.8.6	117	41	**35.0%**
5. Smoking	1.8.7	867	767	**88.5%**
6. Substance misuse	1.8.8	83	9	**10.8%**
7. Other follow-up interventions related to blood lipid measurements and an assessment of nutritional status, diet and level of physical activity - Lifestyle	1.8.9	**3,708**	563	**15.2%**
8. Other follow-up interventions related to blood lipid (including cholesterol) - Statins	1.8.10	**3,708**	803	**21.7%**

*Berkshire West has over **3,700 people** on their GP SMI Registers.*

There are national targets on checks which Berkshire West just wasn't meeting.

One of the challenges as a GP, of running an SMI or an annual health checks programme in practice is about seeing clearly which patients have had a check.

*There are **six designated checks** we need to do.*

We need to be able to see

- ✓ ***which patients have had a check***
- ✓ ***which checks they've had***

For some practices, you'd see some patients - and they might have had a cholesterol one day or a blood pressure check the next. But overall, they hadn't had all of their six health checks.

The systems that we use in practice to look at that information are complicated. Unless you're going to set up a huge spreadsheet yourself and keep updating it – which isn't efficient or sustainable…

*…So we wanted to develop a digital solution to **support practices to run their SMI physical health checks.***

Subcomponents of core physical health check

Denominator: The total number of people on the General Practice SMI registers (on the last day of the reporting period) excluding patients recorded as 'in remission'.

Numerators: Of the denominator, the number of people who have received each of the following elements of the physical health check(s) in the 12 months to the end of the reporting period:

1. A measurement of **weight** (BMI or BMI + waist circumference)
2. A **blood pressure and pulse** check (diastolic and systolic blood pressure recording or diastolic and systolic blood pressure + pulse rate);
3. A **blood lipid** including cholesterol test (cholesterol measurement or QRISK® measurement);
4. A **blood glucose** test (blood glucose or HbA1c measurement)
5. An assessment of **alcohol consumption**
6. An assessment of **smoking status.**

Additional elements of a comprehensive health assessment:

1. An assessment of **nutritional status, diet and level of physical activity** (nutrition/diet status + physical activity/exercise)
2. An assessment of use of **illicit substance/non prescribed drugs** (substance misuse status)
3. **Medicines reconciliation or review**

Discovery: SMI Physical Health Checks

Berkshire West Integrated Care Partnership | BOB Buckinghamshire, Oxfordshire and Berkshire West Integrated Care System | Frimley Health and Care | CIPHA Combined Intelligence for Population Health Action

Aim to proactively review people living with severe mental illness (SMI) who die 15-20 years earlier than the general population, largely due to preventable or treatable physical health problems, to support a reduction in premature mortality.

Background

In the MHFYFV, NHS England committed to leading work to ensure that **by 2020/21, 280,000 people living with SMI have their physical health needs met by increasing early detection and expanding access to evidence-based physical care assessment and intervention each year**. This equates to a target of **60% of people on the General Practice SMI register** receiving a full and comprehensive physical health check and the required follow up care.

Hypothesis

Targeting patients with sever mental illness to perform physical health checks through a virtual hub caseload view, accessed by Primary and Secondary Care with will improve outcomes and improve life-expectancy.

Interoperability

Initial focus is to show patients with physical health checks recorded in Primary Care. Development will include Secondary Care recorded values which will be flowed back into Primary Care.

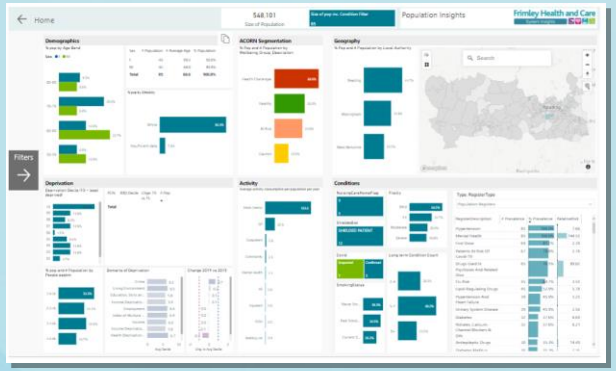
Solution

Population Health Analytics

Identify those patients with SMI:

- **Schizophrenia**
- **Bipolar disorder**
- **Other psychosis**
- **Other patients on lithium therapy**

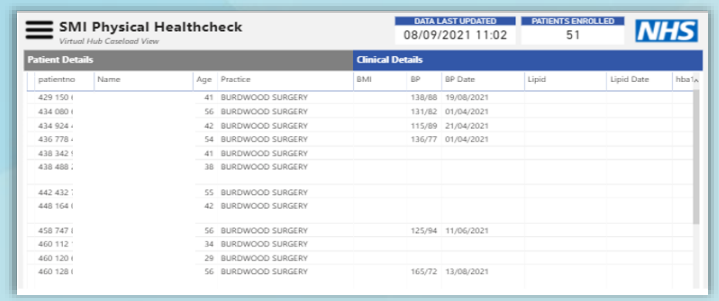
The above cohort can be filtered e.g. by number of contacts with services



***Focus** e.g. Schizophrenia, Bipolar disorder, Other Psychosis, Other patients on lithium therapy.*

Caseload View

Create a caseload view for SMI – Physical Health Checks virtual hub including latest readings and highlighting to show when checks are missing.



Leveraging the digital ecosystem developed for the Pulse Oximetry Programme, patients cohorts can be identified and managed through a virtual hub, enabling care professionals to assess an individual in a more timely manner with input from Primary & Secondary Care.

Transformation

Proactively review SMI patients to identify those without physical health checks through virtual hub.

Primacy & Secondary care to support SMI patients through virtual hub with single view of patient information.

Initial plan go live with caseload view for Primary Care. Further phase to integrate with Secondary Care captured information and flow back into Primary Care.

Evaluation & Learning

OPTIMISE

- ✓ Management of physical health check problems
- ✓ Reduce hospital admissions
- ✓ Enable holistic care
- ✓ Improve patient experience

SMI Physical Health Check - Programme Ambition

Berkshire West Integrated Care Partnership | BOB Buckinghamshire, Oxfordshire and Berkshire West Integrated Care System | Frimley Health and Care | CIPHA Combined Intelligence for Population Health Action

Use Cases

Primary Care

As a Primary Care clinician I am able to see a summary of all patients with SMI and detail of which physical health checks are overdue and which are imminently due.

The dashboard will include health checks taken in Primary Care and Secondary Care so that we are not duplicating effort.

Any information captured in Secondary Care will flow back into my Primary Care system to allow me to accept this into the Primary Care record as part of my workflow.

A summary view will show me the overall performance of my practice for Physical Health checks.

If a patient presents to me, I can also go to their Shared Care Record and see a summary for this patient without having to navigate a dashboard to search for my patient. This will ensure that every contact counts

The impact of the product on outcomes can be clearly demonstrated using the evaluation tools.

Secondary Care

As a Secondary Care clinician I am able to see a summary of all patients that are refereed to me and have a diagnosis of SMI and detail of which physical health checks are overdue and which are imminently due.

The dashboard will include health checks taken in Primary Care and Secondary Care so that we are not duplicating effort.

Any information captured in the Primary Care system is available to me in the Shared Care Record. When I record Physical Health Checks as part of an assessment in Secondary Care, this will flow back to Primary Care so they can see and accept the detail.

A summary view will show me the overall performance of my practice for Physical Health checks.

If a patient presents to me, I can also go to their Shared Care Record and see a summary for this patient without having to navigate a dashboard to search for my patient. This will ensure that every contact counts

The impact of the product on outcomes can be clearly demonstrated using the evaluation tools.

Proactive View

A caseload within the Shared Care Record can identifying those patients under my care diagnosed with SMI: Schizophrenia; Bipolar disorder; Other psychosis; Other patients on lithium therapy.

The latest health check value and date taken can easily be identified, allowing a proactive review of SMI patients to identify those without physical health checks through a virtual hub. Highlighting and filtering will allow professionals to easily target these patients.

Health Checks taken in both Primary and Secondary care are incorporated into the view. Role based access allows me to say patients registered at my practice in Primary Care or referred to me in Secondary Care.

Patient Summary View

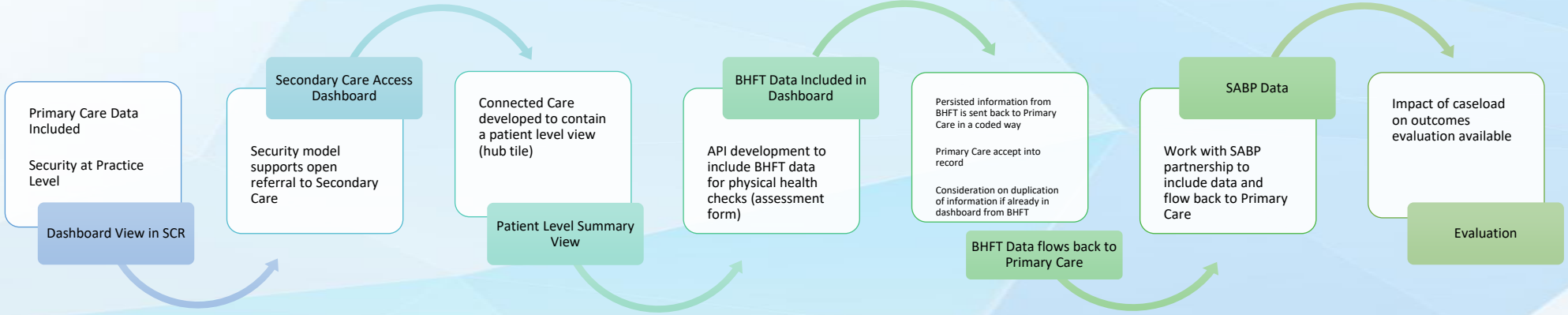
When my patient presents, navigating to the patient with the Shared Care Record will allow me to see a summary view of the latest health checks for the patient.

This will include the latest values, date taken and who the check was taken by.

The summary view will include the latest detail on checks taken in both Primary and Secondary Care.

A simple view showing highlighting when checks are outstanding or due, will allow proactive management to ensure every contact with the patient counts.

The Summary view will also contain other indicators, care processes and a timeline view of events.



Activities may occur linear or in parallel.

Transformation – adoption and spread

KICK OFF

In our area, we worked with some primary care colleagues to develop the dashboard which was iterative – lots of back and forth to define which codes we needed, checking that the data was pulling through accurately.

- *We engaged with all our primary care practices*
- *Showed them how the dashboard worked*
- *Signed them up for access*
- *Ran weekly drop-in sessions to address queries, share learning, identify further improvements.*

At this point we had 40% of practices signed up.

EARLY ADOPTERS – *This Administrator really owned this*

Terry Ong + Grovelands Medical Centre is a great success example

- *Groveland's have a large SMI population*
- *Terry had just started in the practice as the dashboard came out and was tasked to run the SMI health check programme*
- *Attended all of the drop-ins*
- *Is heavily using the tool*

Grovelands has become one of the best performing practices in our locality, with the vast majority of their checks now done.

The SMI caseload dashboard simplified things in primary care - offered a good visual of who you need to call in, for what test and when - a big win for us.

SPREAD across Primary Care

*We ran a **Winter Fundings Programme**, to boost practices to do both their SMI and Learning Disabilities Health Checks.*
There was some funding attached to practices to encourage them to reach out to those patients they'd struggled to recruit.

One of the requirements to signing up to that piece of work was to sign up to the dashboard.

Once people sign up – they use it. But sometimes it's the signing up that can be a challenge in practices – when you're bombarded with information and multiple requests to sign up to all sorts of things. Linking it with this programme increased the engagement.

We now have over 70% of practices signed up.

SPREAD to Secondary Care

*Nationally - there isn't a good connection between secondary and primary care data. **10% of the checks are undertaken in secondary care mental health services** – and Berkshire West are doing well, meeting their targets….BUT…primary care aren't aware of that – there's no transfer of this data.*

There's clearly an overlap and an information gap, so we were hoping the dashboard would help with that communication.

Secondary care colleagues can now see the dashboard – can see which patients have had which checks.

ENHANCEMENTS – Opportunistic Reviews

*We've asked for **Flu and Covid vaccine data** to be added - as they're recognised as important health benefits – so supporting practices to use the opportunity to check and ensure these vulnerable populations were protected.*

Iterative design & development

- **06/21** – SMI caseload request raised
- **08/21** – Added to 'Live' environment for clinical validation – further changes identified and made
- **10/21** – Live to partners – onboarding commences and weekly drop in sessions start
- **11/21** – Further codes added to support HBa1C tests
- **02/22** – Enhancements made to test version
- **03/22** – 'Live' with enhanced version

Evaluation: Uptake and Use

SMI Physical Healthchecks Programmes are aligned to the following NHS Outcomes Framework Domains and indicators:

1. Preventing people from dying prematurely
2. Enhancing quality of life for people with long-term conditions
3. Helping people to recover from episodes of ill-health or following injury
4. Ensuring people have a positive experience of care

https://www.berkshirewestccg.nhs.uk/media/3131/bw00307-enhanced-physical-health-checks-for-people-with-severe-mental-illness.pdf

SMI Physical Health Checks Caseload View

Month	Practices accessing	% of all practices	No. of accesses
Oct-21	10	27	62
Nov-21	5	41	71
Dec-21	-	41	51
Jan-22	-	41	28
Feb-22	7	60	155
Mar-22	4	70	250
Apr-22	1	73	88
Oct 21-Apr 22	**27**	**73**	**705**

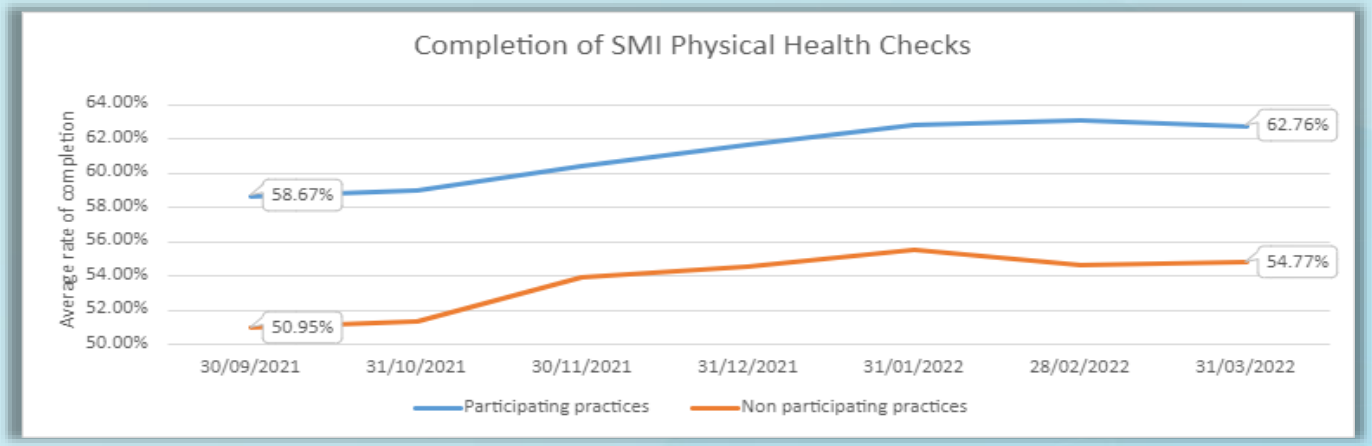
27 out of 37 Berkshire West GP practices are now accessing the caseload view to support their checks.

Accesses peaking in Feb and March, near financial year end, dropping in April to a level higher than previous months.

Data courtesy of Connected Care Programme

Evaluation: Analysis & Improvements

Initial observations: Completion of 6 SMI physical health checks in Berkshire West practices between 30 September 21 to 31 March 22



Completion of checks in participating practices was higher than non-participating practices at the start of the project; both have steadily risen over the 6 months.

Looking at the detail behind the % change, participating practices appear to be completing reviews across all 6 checks, whilst non-participating practices show a greater emphasis on the 1st 3 (alcohol, smoking, BP).

	Participating practices			Non participating practices		
	% at Sep 2021	% at March 2022	% change	% at Sep 2021	% at March 2022	% change
Alcohol consumption review in last 12 months	49.6	58.8	9.2	33.1	46.8	13.7
Smoking habits reviewed in last 12 months	62.7	65.8	3.1	53.1	57.3	4.2
Blood pressure reviewed in last 12 months	65.0	68.0	3.0	60.0	63.5	3.5
Blood glucose reviewed in last 12 months	57.5	61.1	3.6	53.5	54.2	0.7
BMI reviewed in last 12 months	66.3	68.8	2.5	59.2	59.9	0.7
Cholesterol reviewed in last 12 months	50.9	54.1	3.2	46.7	46.8	0.1
Average	58.7	62.8	4.1	50.9	54.8	3.9

Data courtesy of Connected Care Programme

Previous years, in terms of full annual health checks, Berkshire West was typically hitting around 35%. We're now at 47% and rising.

Easier Wins/ Low Hanging Fruit: *When you're trying to do your health checks – its very easy to know what checks have been done for who – historically really hard to say*

I can say e.g. there's 6 people who haven't had their cholesterol checked

I can task my admin team to message or ring to get them in to get this done.

That visual prompt of those checks that are easily missed – are fundamentally important to the patient and their health benefits.

As the same teams that typically look after the SMI checks look at ***annual Learning Disabilities checks*** *– we've used the guidance and learning from developing the SMI views to now produce a similar set to support this cohort.* ***The knock on to patient – is huge.***

Behaviour Change: *Once you've got someone looking at the dashboard – they're effectively looking to progress their SMI health checks.*

So the dashboard is really driving the change in behaviours, change in practice – and helping to tackle inequalities.

The Future…*Right now, secondary care typically email or mail us their assessment and our admin have to input this information into our local EPR systems.*

We want to get to a point nationally, where secondary care input this data into their local EPR and it surfaces in the primary care dashboard – that's what we're aiming for - that would be the ideal.

SMI

SNOMED Codes for SMI Physical Health Checks

SMI - Physical Health Checks

			Code	Description	Entry
1.4.1	Measurement of weight (BMI or BMI & waist	Measurement of body mass index	60621009	Body mass index (observable)	Latest value and date taken
		Measurement of body mass index	3013310008	Finding of body mass index (finding)	
1.4.2	Bp & Pulse Check	Diastolic blood pressure reading	1091811000000100	Diastolic arterial pressure (observable)	Latest value for diastolic & systloic and date taken
			163031004	On examination - Diastolic blood pressure reading (finding)	
		Systolic blood pressure reading	72313002	Systolic arterial pressure (observable)	
			163030003	On examination - Diastolic blood pressure reading (finding)	
1.4.3	Blood Lipid including cholesterol	Cholesterol Measurement	Refer to cholesterol QOF cluster		Latest value and date taken
		QRISK measurement	810931000000108	QRISK2 calculated heart age (observable entity)	
			718087004	QRISK2 cardiovascular disease 10 year score (observable entity)	
			847201000000103	Unsuitable for QRISK2	
1.4.4	Blood Glucose Test	Blood glucose measurement	1010671000000100	Plasma glucose level (observable entity)	Latest HbA1C value and date Latest blood glucose measure and date
			1003141000000100	Plasma fasting glucose level (observable entity)	
			997671000000106	Blood glucose level (observable entity)	
			1010611000000100	Serum glucose level (observable entity)	
			1003131000000100	Serum fasting glucose level (observable entity)	
			997681000000108	Fasting blood glucose level (observable entity)	
		HbA1c	29823000	Haemoglobin A1C - diabetic control interpretation (observable entity)	
			109431000000105	Haemoglobin A1C level (Diabetes Control and Complications Trial aligned) (observable entity)	
			999791000000106	Haemoglobin A1C level International Federation of Clinical Chemistry and Laboratory Medicine Standardised (o	
1.4.5	Alcohol consumption assessment	Alcohol consumption assessment	Run alcohol consumption QOF cluster for reporting		Latest Status and Date added
1.4.6	Smoking Status	Smoking status	Run smoker/ex-smoker/current smoker/smoking habit/neversmoked QOF clusters for reporting		Latest Status and Date added

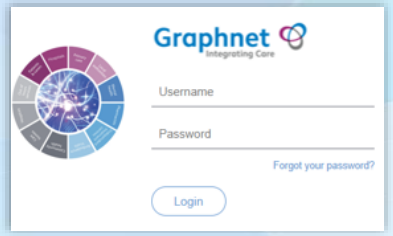
1.6.1	Nutritional Status or Diet	Nutritional Status or Diet	16208003	Diet - low in fat	Latest Status and Date added
			310500000	Diet good	
			310502008	Diet poor	
			310503003	Diet average	
			226214005	Healthy diet	
			391132008	Nutritional assessment completed	
			266930008	Exercise history	
			160628002	Exercise Grading	
1.6.2	Illicit Substance/ non-prescribed drugs	Illicit Substance/ non-prescribed drugs	<<228366006	Finding relating to drug misuse behaviour	Latest Status and Date added
			<<191816009	Drug Dependence	
			<<363908000	Details of drug misuse behaviour	
			<<228367002	Does not misuse drugs	
			<<11061003	Psychoactive substance use disorder	
1.6.3	Medication reconciliation & Review	Medication reconciliation & Review	<<182836005	Review of medication	Latest Status and Date added
			<<413143000	MH Medication review	
			<<314530002	Medication Review done	
			<<430193006	Medication reconciliation	

SMI Physical Healthchecks Caseload View

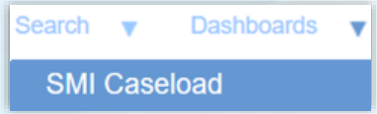
The caseload page provides record level information on patients on the SMI register and their associated physical health checks. The report helps to highlight where gaps are - where information needs to be collected.

All data is collected from GP records as part of the integrated care record (ICR).

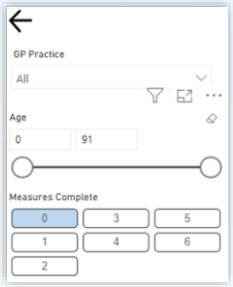
1. Access: Login to Connected Care https://connectedcare.uk.com/



2. Click Dashboards and select SMI Caseload

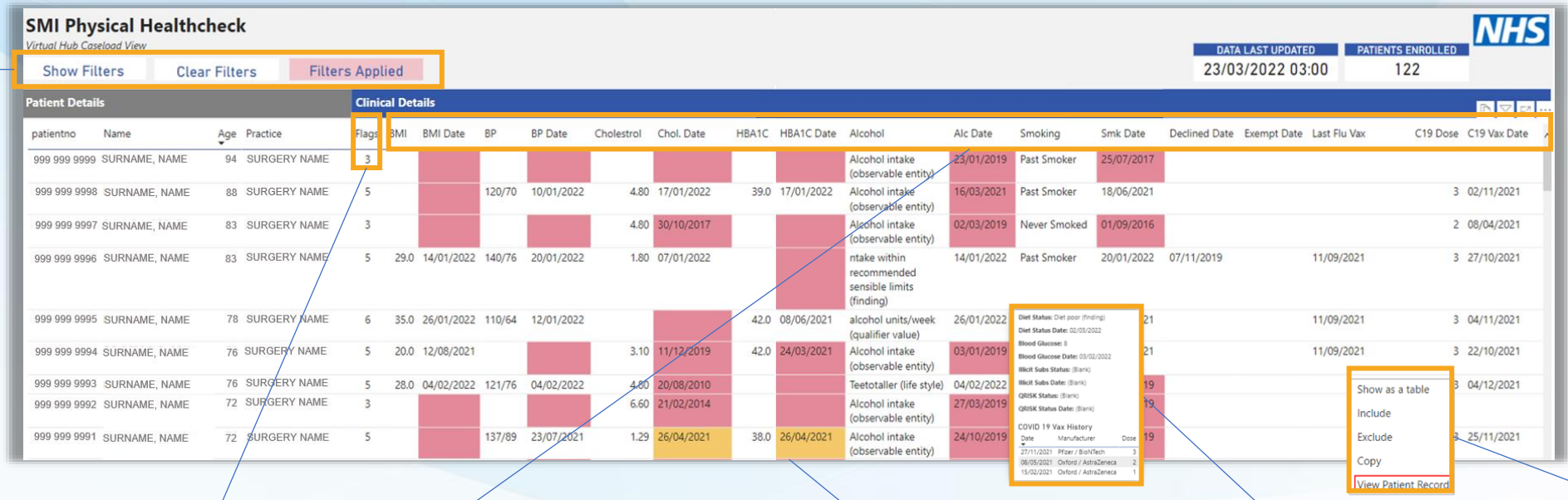


Show Filters reveals a filter pane to slice visuals by different aspects : GP practice and/or age and/or measures complete



Clear Filters removes all filters from all pages

No Filters Applied/Filters Applied shows which filters are applied from the filter pane



Flags shows number of checks taken in the last 12 mths.

6 Checks, Declined, Exempt + Flu/Covid Vac data is listed.

Highlighting help draw attention to missing health checks or those due.

Red = No Health Check in the past 12 months

Amber = Health Check due within the next month

Hover mouse over a patient line for more information

Right click on patient line to view ICR

For more information contact

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Combined Intelligence for Population Health Action

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