

Case study



Covid Oximetry @Home and Covid virtual ward

Sussex Health and Care

inhealthcare



"I found the service wonderful. At this time my asthma was causing me problems so receiving the calls during the day took away some of the fear.

I knew someone was there at the end of the line and nothing seems so bad when you have a friendly voice to talk to."

CO@H patient



In May 2022, the Sussex @Home programme produced an evaluation of the Covid Oximetry@Home service to consider findings from the service and make recommendations for the future. The evaluation drew on a range of sources, including a patient survey and Covid admissions data. The following case study is based on this evaluation.

The challenge

- The identification of silent hypoxia, the presence of low blood oxygen levels in a patient who might not otherwise seem unwell, is a symptom of Covid-19 that needs to be closely monitored and given urgent medical attention if required.
- The Covid Oximetry@Home (CO@H) pathway and Covid virtual ward (CVW) help clinicians to identify early signs of deterioration and intervene to improve patient outcomes.
- Towards the end of 2021, an increase in Covid cases was anticipated from the Omicron variant and Sussex Health and Care wanted to take steps to manage A&E and hospital admissions.

The solution

A Covid Oximetry@Home service was piloted across Sussex from January to March 2021.

As part of the Sussex response to manage the increase in Covid cases anticipated from the Omicron variant, the CO@Home and Covid virtual ward services were delivered by four GP Federations and Alliances and rapidly

implemented across Sussex from 31 December 2021 to 31 May 2022.

High-risk and clinically vulnerable patients, including those at risk of health inequalities through disability or deprivation, were prioritised for referral.

How do the CO@H and virtual ward services work?

The services aim to support patients to better manage their Covid-19 symptoms for themselves, to provide clinical assessment for those with deteriorating symptoms or oxygen saturations, and to enable the early identification of deterioration that may prevent worse outcomes.

Pulse oximeters are supplied to patients to enable them to remotely monitor their oxygen levels at home. Instructions are provided about what to do if saturation levels drop or symptoms worsen out of hours.

Patients are virtually monitored three times a day using a pulse oximeter and clinical questions sent via a portal, text, email or telephone.

As the Covid virtual wards support the early and safe discharge from hospital of Covid in-patients in Sussex acute trusts, Covid virtual wards patients are also provided low flow oxygen via an oxygen concentrator.

Contact preferences

Patients were given the option to receive contact and report their readings via email, SMS, automated telephone call or direct (in-person) telephone call.

Overall, **79%** of patients chose to use digital methods as their method of communication. However, service administrators were also available by telephone to collect readings, explain processes and support patients throughout their time on the service for those who were unable or did not wish to use digital methods.

55% of patients chose to receive contact by SMS

24% by email

20% by direct call

1% by automated telephone call

Younger patients were more likely to request SMS contact and those in older groups preferred direct telephone contact.



"Because I do not have a smartphone I got stressed about reporting my readings but The Covid @ home team were great and they call me on my home phone 3 times a day so I could report my results."

CO@H patient

Feedback shows that the flexible contact methods worked well for patients with learning difficulties, sensory impairment and mental health conditions, as well as those for whom English is not their first language.

The Equality and Quality Impact Assessments completed by Sussex Health and Care Partnership noted that the service model enables patients to better understand their own health, and that all opportunities to promote equality have been undertaken.

CO@Home services were delivered by four GP Federations and Alliances across Sussex from January – May 2022.

Covid-19 Oximetry@Home Service

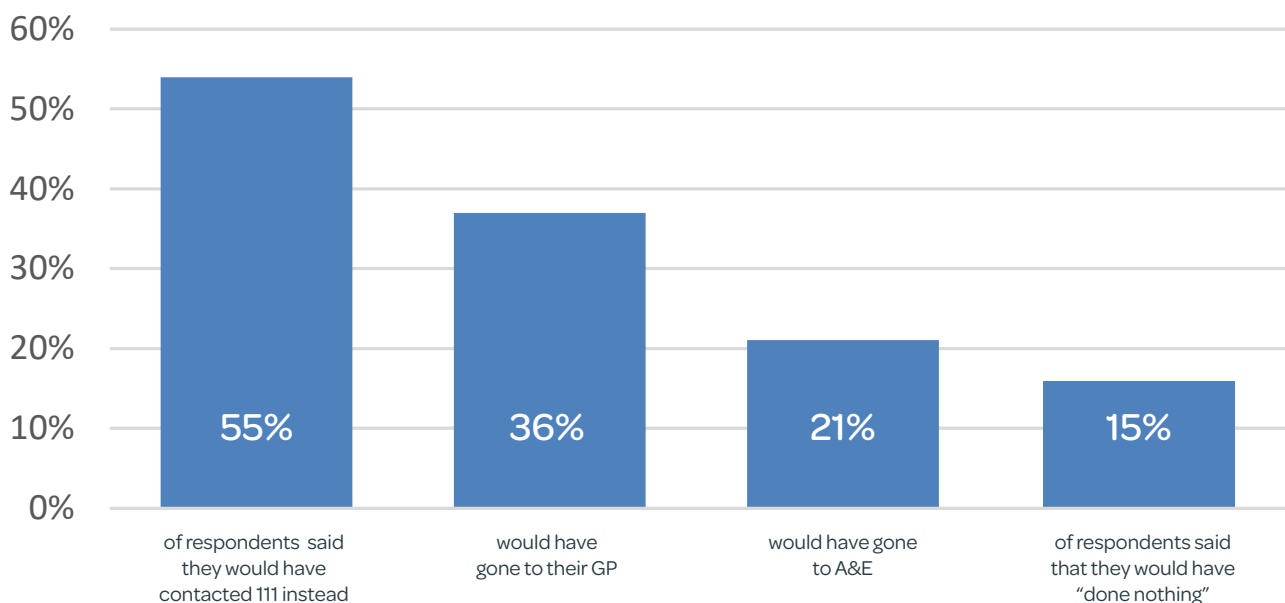
- A total of **2088** referrals were received for the Covid-19 Oximetry@Home Service.
- Peak case load of **338** active patients in March 2022.
- Clinicians responded to **11,340** 'red', 'amber' or 'non-responder' alerts warning of possible deterioration in a patient.
- A further **1,592** 'non-responder' alerts were created for missed readings.
- The service aims to support patients for up to 14 days. The average length of stay was **9** days and the longest was **42** days.

- **96%** of CO@Home patients were discharged as recovered or self-discharged; **2%** were admitted to hospital and less than **1%** of patients died whilst on the service (there have not been any reports that this was relevant to the safety or effectiveness of this service).

Covid virtual ward

- A total of **27** referrals were received for the Covid virtual ward on this pathway.
- Peak case load for virtual wards was **10** days.
- It was anticipated that most patients would require 5-7 days follow-up. The average stay was **9** days.
- **80%** of CVW patients were discharged as recovered, with **10%** recorded as selfdischarged.

If the CO@H had not been available:



Assuming that survey responses are representative of all users, there is potential for the service to have saved over **440** A&E attendances, **1,150** calls to 111, **750** GP visits, **146** pharmacy visits and **84** clinic walk-ins.



"The service works brilliantly and kept me from going to A and E. I knew that if my condition deteriorated help was immediately at hand."

CO@H patient

Patient survey findings

A patient survey was designed with support from the Sussex CCG Public Involvement team. The survey was distributed to patients on discharge.

Based on 302 responses:

- **99%** of responses reported the service as either a good or very good experience.
- The majority of patients reported that they felt looked after, safe and reassured while using the service and knew what to do if their health got worse.

- Approximately one-quarter of respondents indicated that their health did get worse whilst on the service and, of those, **93%** were able to access support.



"I felt that I was being monitored all the time. When I asked for assistance, the response was prompt. Requests for readings was prompt. Very reassuring."

CO@H patient

Benefits of the services

- Evidence from CO@Home services in other areas shows that patients were less likely to attend the emergency department, were hospitalised less frequently, had shorter hospital stays and lower mortality rate.
- The service enables patients to better understand their own health, and measures are in place to ensure deterioration is identified early.*
- The patient inclusion and exclusion criteria are designed to ensure that patients can participate safely in the service, with autonomy and clinical support as appropriate.*
- The service was expected to have an overall positive impact on patient safety, clinical effectiveness and patient experience.*

*The Quality Impact Assessment (QIA) completed by Sussex Health and Care partnership, March 2022



"I'm really impressed by the service. For someone who is vulnerable and doesn't want to go to hospital and put other people at risk, it is very helpful"

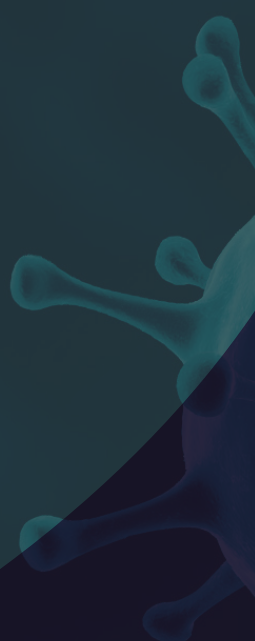
CO@H patient



*"It was very reassuring at a worrying time.
I'm 74 and have heart disease so it was
helpful to be able to monitor myself and very
reassuring to know I was being monitored by
the medical services.*

*It's an excellent way of engaging the patient in
their care, providing what they fundamentally
need whilst lessening the strain on
overstretched health services."*

CO@H patient



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