

SARS-CoV-2 specimen collection kits: maintaining supply through in-house production

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What was done?

During the first wave of SARS-CoV-2 infections the hospital pharmacy of Clinic Favoriten, Vienna's specialised Covid-19 center, assembled specimen collection sets manually to meet rising demands, compensate for shortages and secure vital diagnostics supply.

Why was it done?

In Austria, Covid-19 infection rates began to increase in March. At Clinic Favoriten, over 700 patients were treated during the first wave. This resulted in an increasing demand of specimen collection sets. Even though various wholesalers and contractors were contacted, the orders could not be served in a quantitative or timely manner. These circumstances forced the pharmacy to look for alternative solutions.

How was it done?

In collaboration with the laboratory department and other clinics of the Vienna health care group appropriate materials with CE-certification were sought to assemble a set that is easy to handle concerning production, distribution and application.

Sterile plastic tubes were filled aseptically with physiologic saline and labelled. Tubes and sterile swabs were then packed in a plastic bag that was sealed with a label providing general instructions for use. Manufacturing protocols as well as batch documentation ensured quality assurance and traceability.

Major obstacles included availability and suitability of the needed materials. Manufacturers of tubes and swabs had to be changed over time, which required close communication with medical wards and the laboratory department.

Specimen collection sets	2.033
Swabs	20.330
Tubes	10.165

Table 1: Detailed production volume of specimen collection sets during CW (calendar week) 12-19

What next?

The initiative has demonstrated that pharmacists play a vital role in handling product shortages and maintaining supply security. In the future, the pharmacy will reinforce to monitor trends even more and will thus be able to balance changing demands and non-availabilities. Like this, the existence of an in-house pharmacy department securing appropriate supply will gain more and more significance. In times of increasing shortages, the initiative serves as a model for other healthcare systems confronted with similar difficulties.

I hereby would like to thank the medical students from Sigmund Freud University for their help in assembling the sets and also all the colleagues, who have been further involved in this project.

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What has been achieved?

Over a period of seven weeks 2.033 specimen collection sets were assembled.

In detail, a total of 20.330 swabs were packed and 10.165 tubes were filled.

Through this measure a continuous supply of specimen collection sets, essential for further Covid-19 testing, was secured.

Moreover, the importance of a pharmacy in-house production with the aim of maintaining supply security was acknowledged throughout the entire hospital.

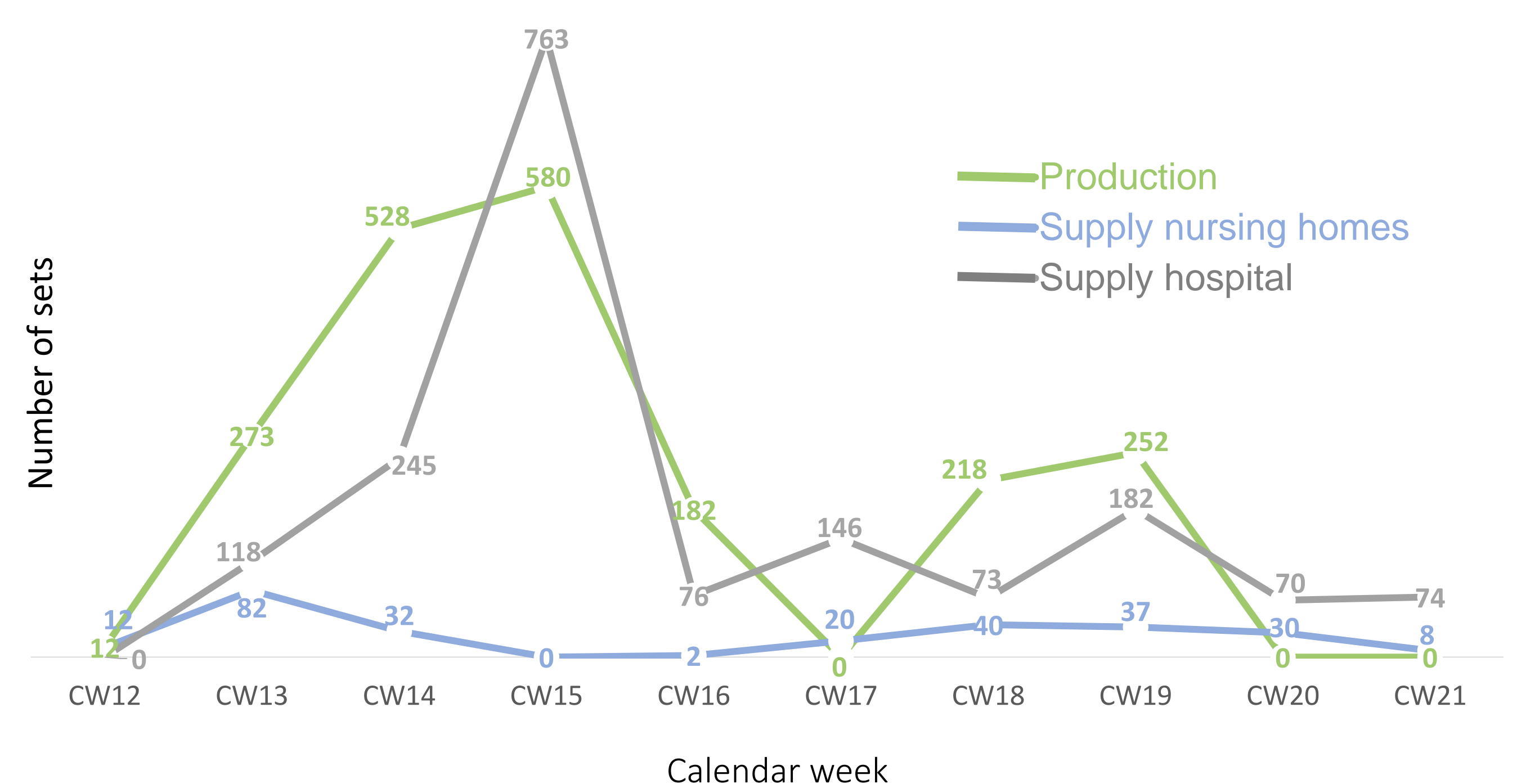


Figure 1: Production and supply volumes of specimen collection sets

	Production	Supply nursing homes	Supply hospital
CW12	12	12	0
CW13	273	82	118
CW14	528	32	245
CW15	580	0	763
CW16	182	2	76
CW17	0	20	146
CW18	218	40	73
CW19	252	37	182
CW20	0	30	70
CW21	0	8	74
Total	2033	243	1673

Table 2: Production and supply volumes of specimen collection sets during CW (calendar week) 12-21