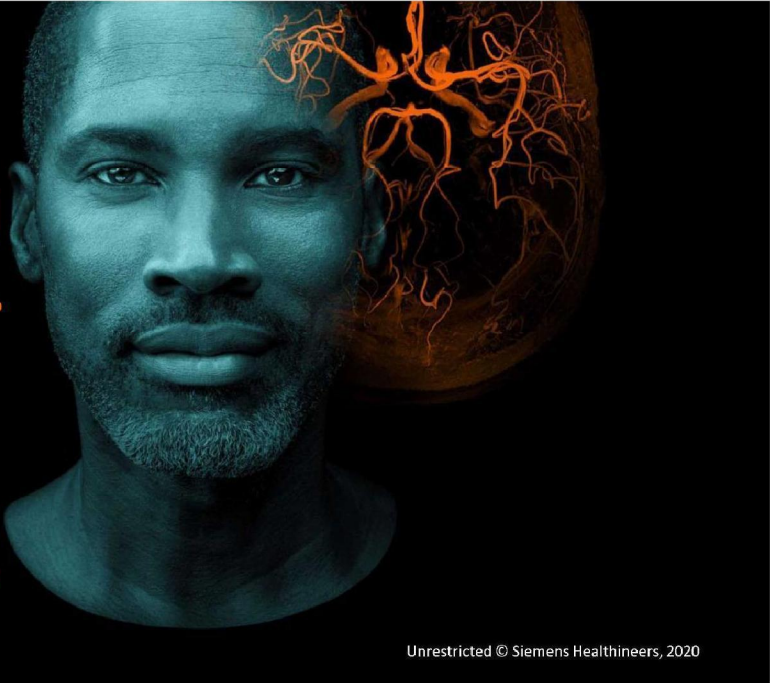
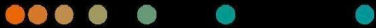




Platform for optimized organization of COVID-19 vaccination

Information on Test and Vaccination Analytics
November 18, 2020



Unrestricted © Siemens Healthineers, 2020

Challenge for ministries, health authorities and health insurances to effectively distribute and manage vaccination

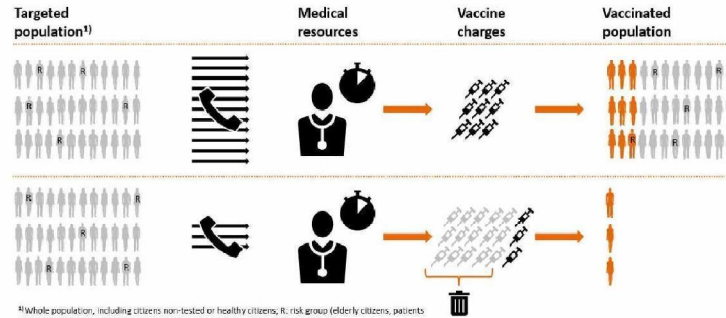


Target Group - global

Ministries, Health Authorities & Health Insurances

Challenge

How to best utilize **the limited supply of vaccines** in order to **minimize the impact of the epidemic** and allocate the existing infra-structure **without wasting resources**

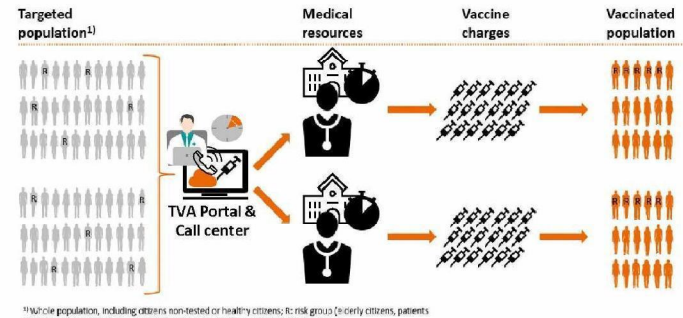


¹⁾ Whole population, including citizens non-tested or healthy citizens; R: risk group (elderly citizens, patients with pre-existing conditions, essential workers e.g. doctors, nurses, police, teachers)

This service is under development and not commercially available. Its future availability cannot be ensured.

Solution

Effective distribution and optimized management of population vaccination by **prioritizing risk groups and regions** through the **digitalization of the immunization process**

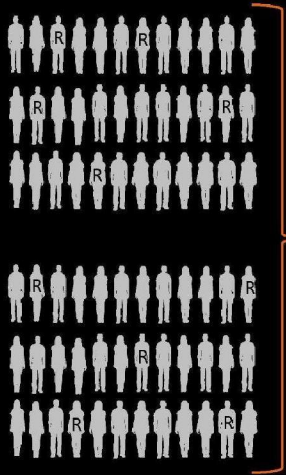


¹⁾ Whole population, including citizens non-tested or healthy citizens; R: risk group (elderly citizens, patients with pre-existing conditions, essential workers e.g. doctors, nurses, police, teachers)

Optimized vaccination through digitized vaccination management powered by smart vaccination intelligence



Population
(risk group¹ 40%)



Call Center

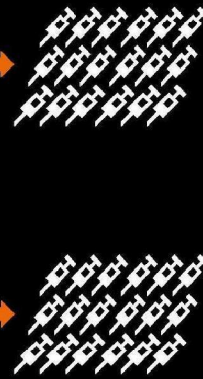


TVA

Medical Resources /
Vaccination Centers



Vaccine amount



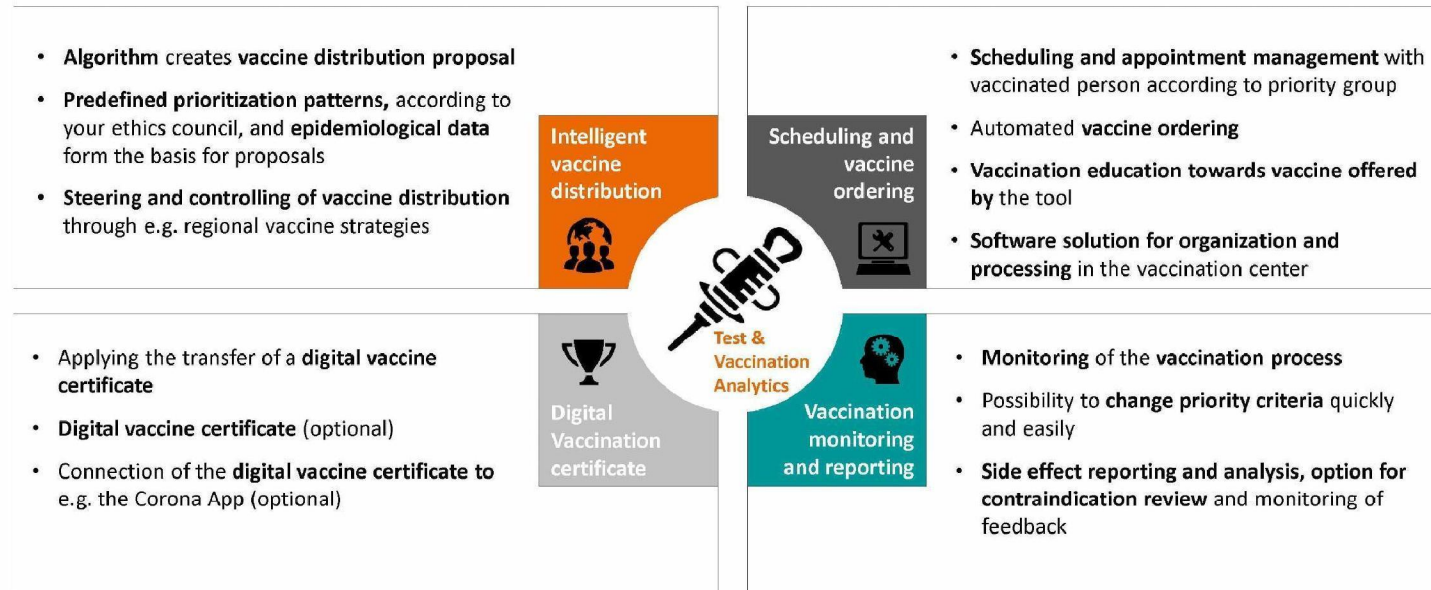
Vaccinated patients



¹) R= risk group

This service is under development and not commercially available. Its future availability cannot be ensured.

One solution provides the answer to four challenges in vaccine distribution



This service is under development and not commercially available. Its future availability cannot be ensured.

Dashboard on overview of vaccination allocation in different regions and simulation of vaccination strategy - Prototype



Vaccine Distribution & Monitoring

User Name: Hospital Company

Search for location

Updated: Mar 8, 2021 10:42:04 - Shared: MEDICAL CONSULTING 2020

Germany
Updated: Mar 9, 2021 10:42:04 - [Refresh](#)

51.2K
Cumulative Cases
Reported yesterday: +2,712

52,344 ▲ 1.6%
New Cases (14 days)
Dec 27, Jan 4

10,305
Deaths
Reported yesterday: +34

354K
Vaccinated
Reported yesterday: +11,382

23,400
Open Vaccination Slots
[View Details](#)

42,650
Booked Vaccination Slots
[View Details](#)

56,340 ▲ 11.4%
Registered in Waiting
[View Details](#)

75,000 ▲ 100% Release 8 - March
Vaccines allocated based on positivity rate of each region. Vaccination restriction is implemented for non-urgent based on the strategy.

Simulation Details: Mar 29, 2021 - Apr 2, 2021

Nürnberg Kreisfreie Stadt
Updated: Mar 9, 2021 10:42:04 - [Refresh](#)

15,234
Vaccinated
Reported yesterday: +248

342
Open Vaccination Slots

728
Booked Vaccination Slots

1,242 ▲ 10.4%
Registered in Waiting

Vaccination Center	Allocation & Slots	Status	Alerts
Vaccination Center-1 Volkswahlungsbaue-Gemeinschaft Frauenpommauer 42, 90402 Phone: +49 911 2271559	2500 Vaccines 350 Total Slots / Week	Open Slots: 240 Booked Slots: 422 Registered: 842	! Uptake slow, 10% slots open for next week.
Vaccination Center-2 Volkswahlungsbaue-Gemeinschaft Frauenpommauer 49, 90402 Phone: +49 911 2271459	2500 Vaccines 350 Total Slots / Week	Open Slots: 240 Booked Slots: 422 Registered: 842	! Uptake slow, 10% slots open for next week.

Total Vaccines Released 210K

Mar 5, 2021 - Mar 7, 2021

- Release 8 - March
Mar 2, 2021 - 08:24:46 75,000
- Release 7 - Late February
Feb 26, 2021 - 06:20:36 52,000
- Release 6 - Early February
Feb 8, 2021 - 08:27:36 29,500
- Release 5 - Late January
Jan 30, 2021 - 09:24:59 40,000
- Release 4 - Early January
Jan 8, 2021 - 08:26:30 25,000

Create New Release

Region	Allocation & Slots	Outcomes	Status	Alerts
Nürnberg Kreisfreie Stadt	5000 Vaccines 2 Centers 2500 each 700 Total Slots / Week	Cases: -12,242 ▲ 19.92% Deaths: -34 ▲ 18.02%	Open Slots: 342 Booked Slots: 728 Registered: 1,242	! Uptake slow, 10% slots open for next week.
Erlangen Kreisfreie Stadt	2400 Vaccines 1 Center: 2400 each 520 Total Slots / Week	Cases: -8,426 ▲ 24.36% Deaths: -12 ▲ 12.16%	Open Slots: 128 Booked Slots: 426 Registered: 874	! Vaccination supply is low in 2 weeks
Nürnberg Kreisfreie Stadt	5000 Vaccines 2 Centers 2500 each 700 Total Slots / Week	Cases: -12,242 ▲ 19.92% Deaths: -34 ▲ 18.02%	Open Slots: 342 Booked Slots: 728 Registered: 1,242	! Large number of 'No-Shows'
Erlangen Kreisfreie Stadt	2400 Vaccines 1 Center: 2400 each 520 Total Slots / Week	Cases: -8,426 ▲ 24.36% Deaths: -12 ▲ 12.16%	Open Slots: 128 Booked Slots: 426 Registered: 874	! High number of 'At Risk' individuals.
Nürnberg Kreisfreie Stadt	5000 Vaccines 2 Centers 2500 each 700 Total Slots / Week	Cases: -12,242 ▲ 19.92% Deaths: -34 ▲ 18.02%	Open Slots: 342 Booked Slots: 728 Registered: 1,242	
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Demographics

■ Scheduled ■ Registered

Population Cohort	Coverage	Backlog
Healthcare Workers	348 Vaccinated <small>High to very high risk of acquiring and transmitting infection</small>	None
Older Adults (At Risk)	537/127	
Older Adults (Not at risk)	182/216	
Groups with comorbidities	78/145	

This service is under development and not commercially available. Its future availability cannot be ensured.

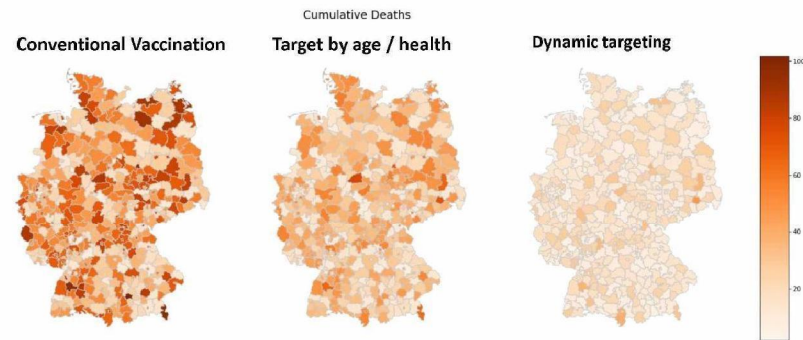
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Unrestricted © Siemens Healthineers, 2020

How are we addressing the dynamics of an epidemic in the vaccination distribution intelligence?



Smart Vaccination

Vaccination algorithm simulation (deaths)



Using big data to improve targeting

- Dynamic epidemic → Outbreak locations constantly changing
- Focus on age groups or pre-existing conditions not enough
- Regional outbreak dynamics data improve mortality/costs by up to 30%

This service is under development and not commercially available. Its future availability cannot be ensured.