# Digital Health and The Israeli COVID-19 Response

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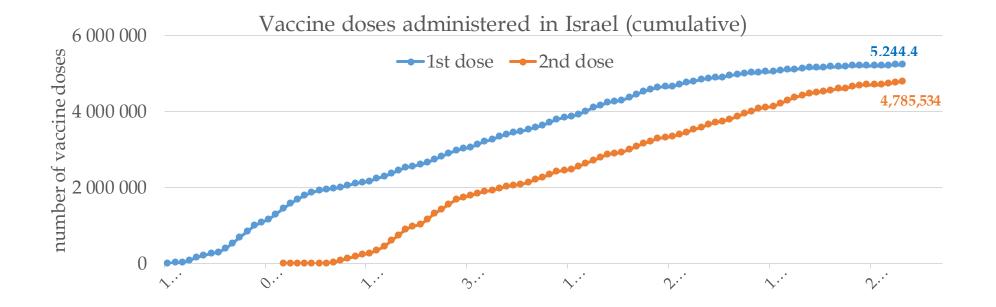
Deputy Director – Division of Epidemiology

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Israel



### Vaccine doses administered in Israel

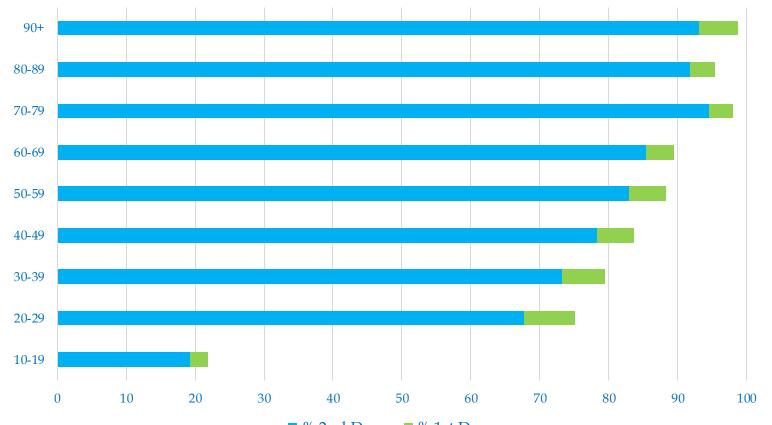


MINISTRY OF HEALTH

### **Percent Vaccinated**



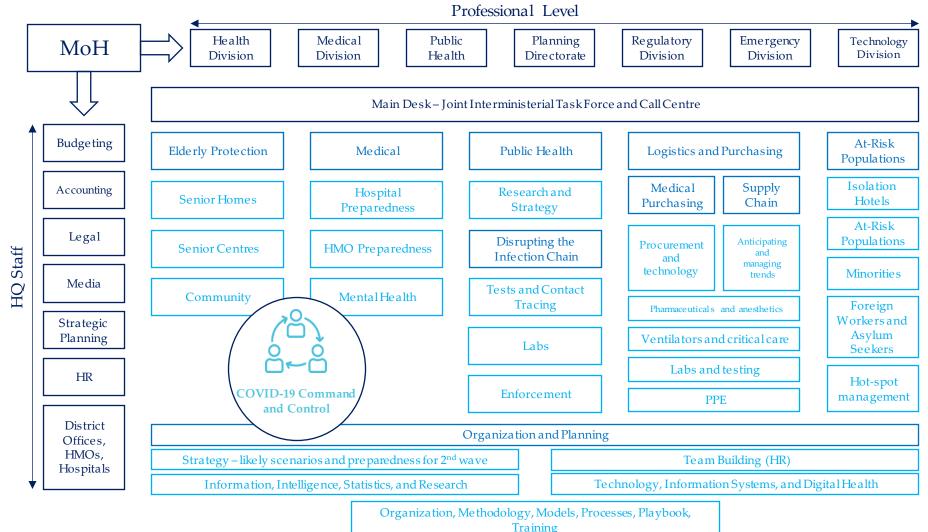
Vaccinations by age group



■ % 2nd Dose ■ % 1st Dose

### **COVID-19 Operational Structure**





### Israeli Health System Strengths

- 1. Strong, centralized national health system
- 2. National Health Insurance; coverage for all residents
- 3. 4 competing but cooperating national HMO's
- 4. Personal ID numbers from birth
- 5. All community health care documented in Electronic Medical Records (EMR's)
- 6. MoH has centrally linked data on every COVID test and every immunization dose
- 7. Extensive experience in Emergency Preparedness and Response
- 8. National psyche geared towards mobilizing in a crisis
- 9. Willing cooperation of all participating health organizations

## Digital Health in the COVID-19 response



- Centralized health information systems:
  - Test results, with immediate text message notification
    - And thus, real-time national pandemic picture
  - Immunization records
  - COVID hospitalization records\*
  - Mortality data\*
  - COVID call center
  - Vaccine supply chain

\*Not entirely digital

# **Traffic Light System**



- Updated system for dealing with the rate of infection while also allowing safe economic reopening
- Decided by comparing three variables:
  - N new cases per 10,000 residents
  - G doubling ration  $(R_o)$
  - P percent of total tests which were positive
- Zones are re-evaluated as needed, and at least biweekly

#### Red Zones

- Cities with especially high rate of infection
- 10 people indoor gathering
- 20 people outdoor gathering

#### **Orange Zones**

- Cities with high rate of infection
- 20% capacity indoor gatherings, no more than 25 people
- 40% capacity outdoor gatherings, no more than 50 people

#### **Yellow Zones**

- Cities with medium rate of infection
- 40% capacity indoor gatherings, no more than 50 people
- 60% capacity outdoor gatherings, no more than 100 people

#### Green Zones

- Cities with low rate of infection
- 60% capacity indoor gatherings, no more than 100 people
- 90% capacity outdoor gatherings, no more than 250 people

### **Green Pass v. Vaccination Certificate**



### Green Pass (Domestic Use)



### Vaccination Certificate (International Use)

| <b>Miram</b>        |   |  | <b>מרים</b>  |        |
|---------------------|---|--|--|--------|
| Wechsler Lindenfeld |   |  | <b>וקסלר לינדנפלד</b>                                      |        |
| Full Name           |   |  | שם מלא   |        |
| <b>57738870</b>     |   |  | <b>208067356</b>   |        |
| Passport Num.       |   |  | מס. תעודת זהות   |        |
| <b>15.11.94</b>     |   |  | <b>15.11.94</b>  |        |
| Date of Birth       |   |  | תאריך לידה   |        |
|                     | תאריך תפוגת התוקף<br>Expiration Date<br><b>19.09.2021</b> |  | תאריך כניסה לתוקף<br>Inoculated Since<br><b>19.09.2020</b> |        |
|                     |   | <b>12.08.2020</b><br>Covid19 BNT162b2,<br>Pfizer, EK4174<br>Maccabi קופ״ח מכבי |  | ate 01 |
| שייים<br>שנה מכבי   |   | <b>12.08.2</b><br>Covid19 BN<br>Pfizer, EK4<br>Maccabi                         | IT162b2,<br>174  |        |

### **Uses for Green Pass and VC**

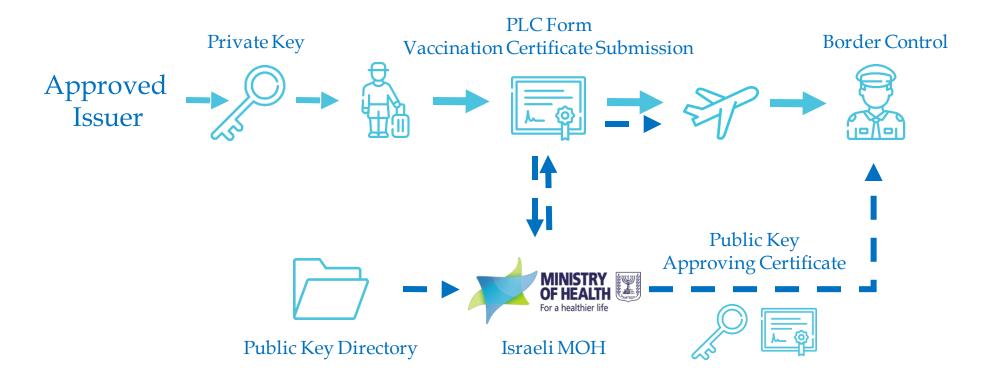






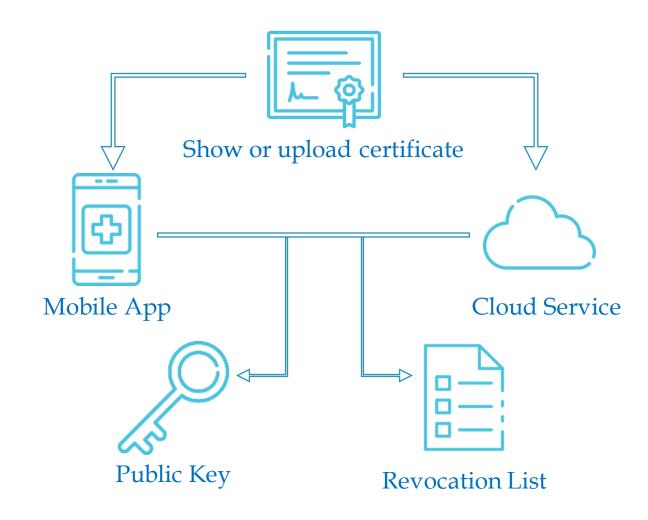
### **Verification System**





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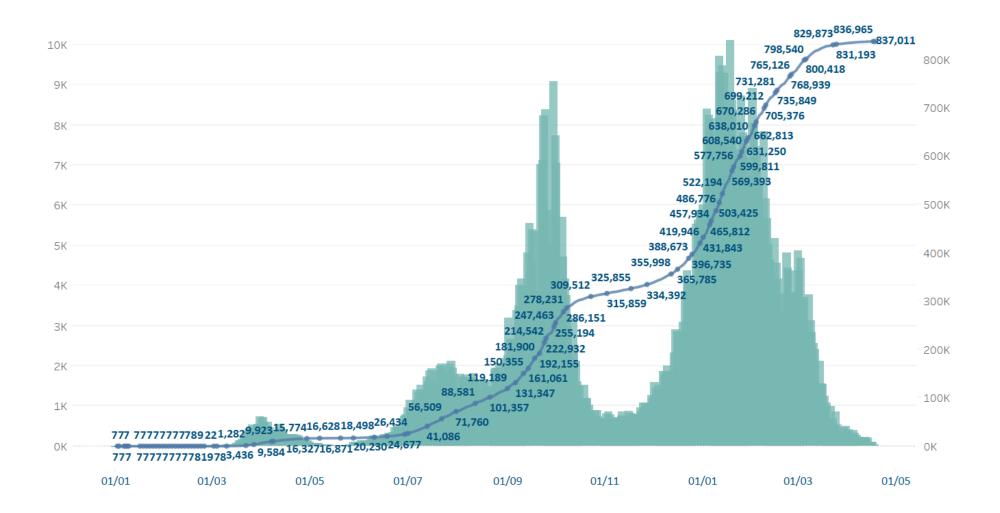




No online access to patient data

### **Epidemiological Curve 2020-2021**





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### **Lessons Learned**



Technological tools were central in targeting patients through integrated national HIE and HMO EMRs, communications and booking systems



Inventory planning and avoiding waste through integration with HMO appointment tracking systems



Documentation and the green pass programme

