# EPI·WiN

# WHO Information Network for Epidemics

**Coronavirus disease (COVID-19)**

**2019 - 2020**

**Update #17  17.03.20**

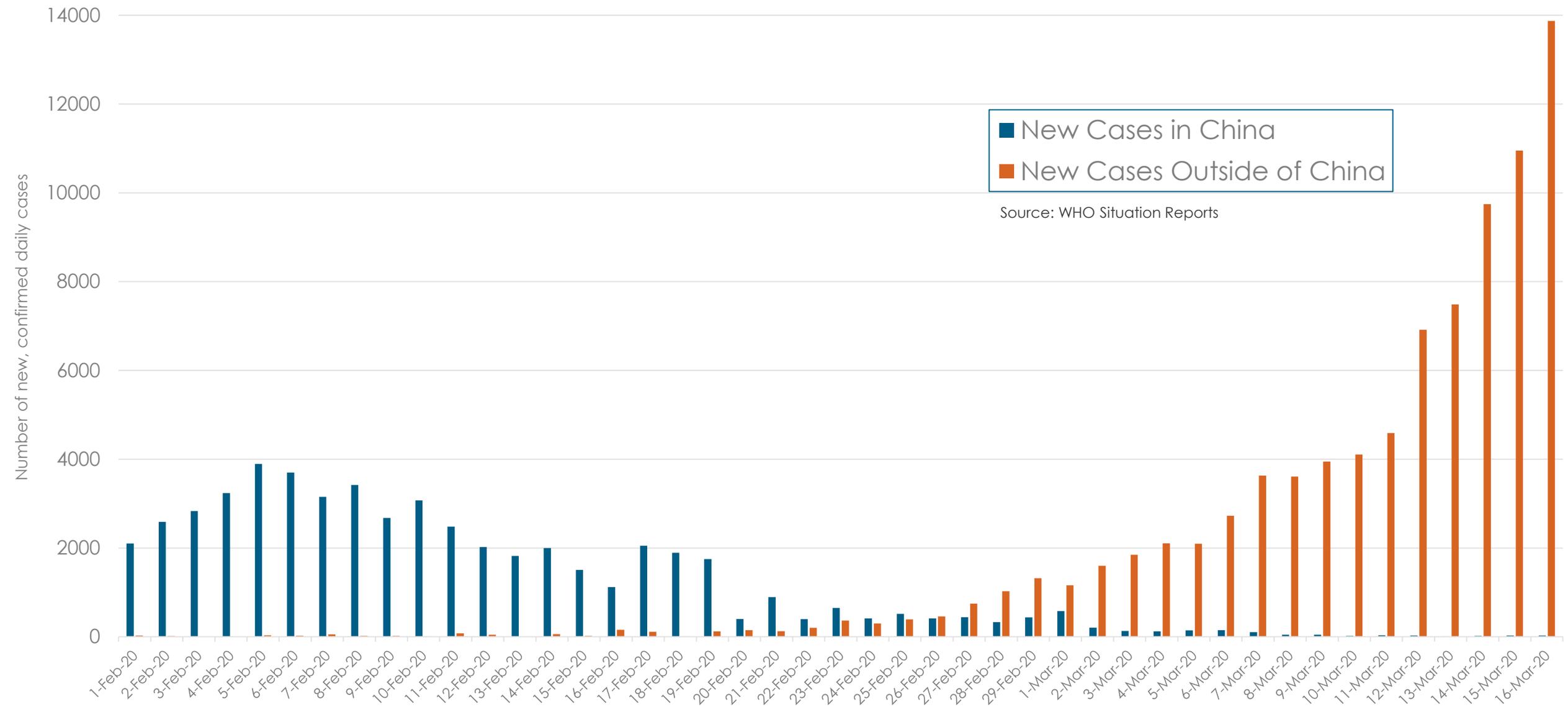## World Health Organization

# Current Situation

Source: WHO

## Globally, between 31 Dec 2019 - 17 Mar 2020

- A total of 184,976 confirmed cases
- 159 countries and regions affected
- 7,529 deaths

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17/03/2020
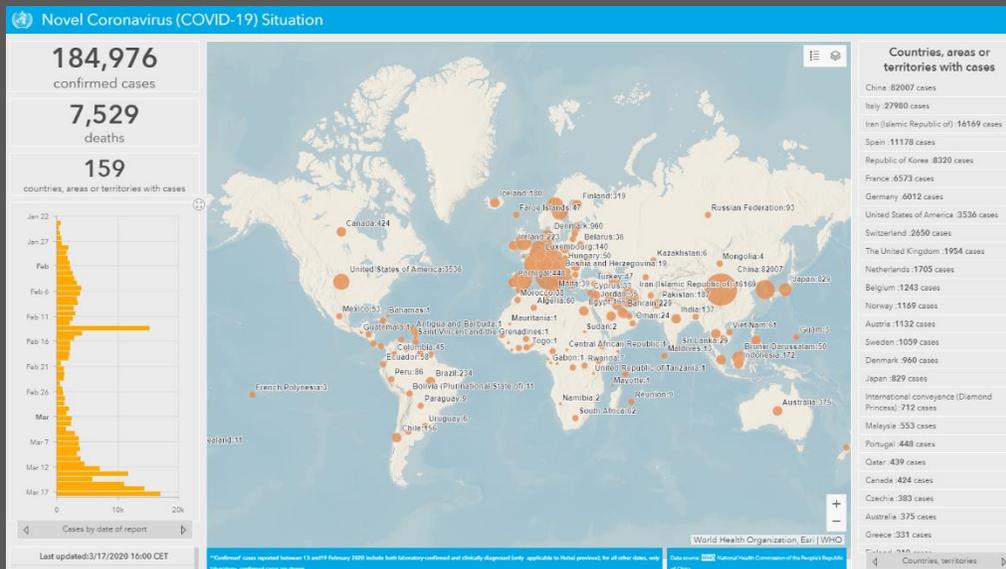
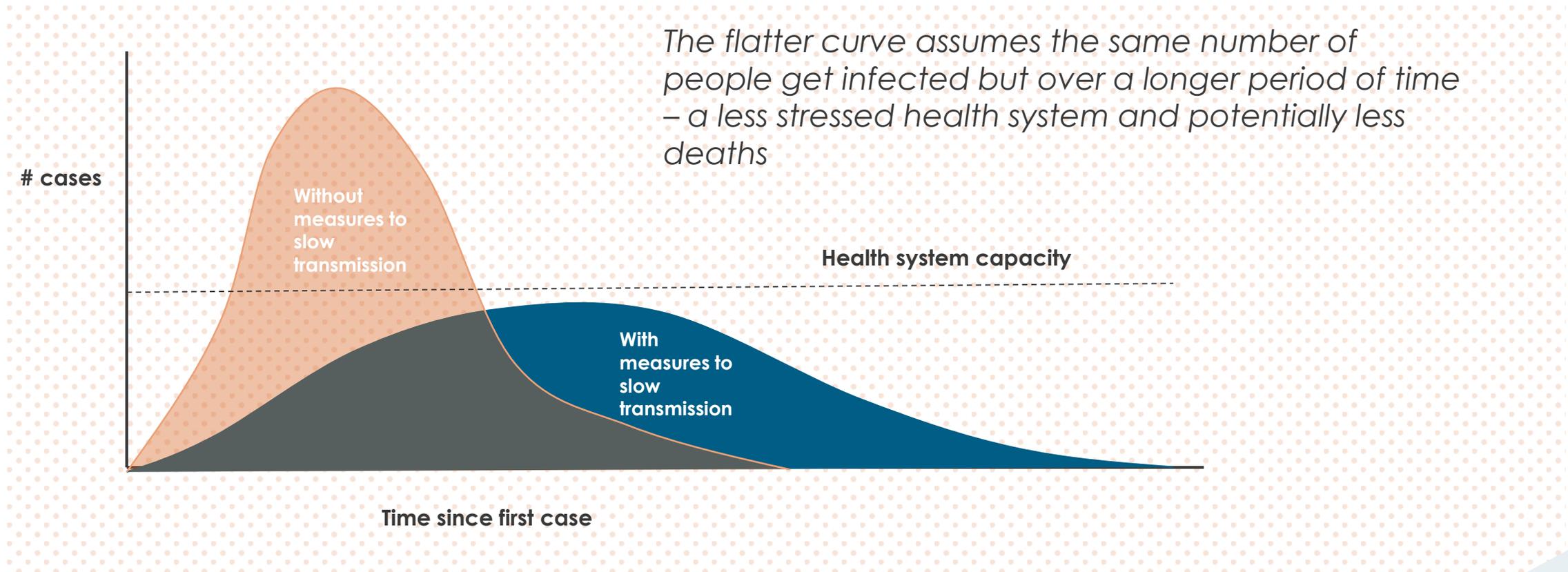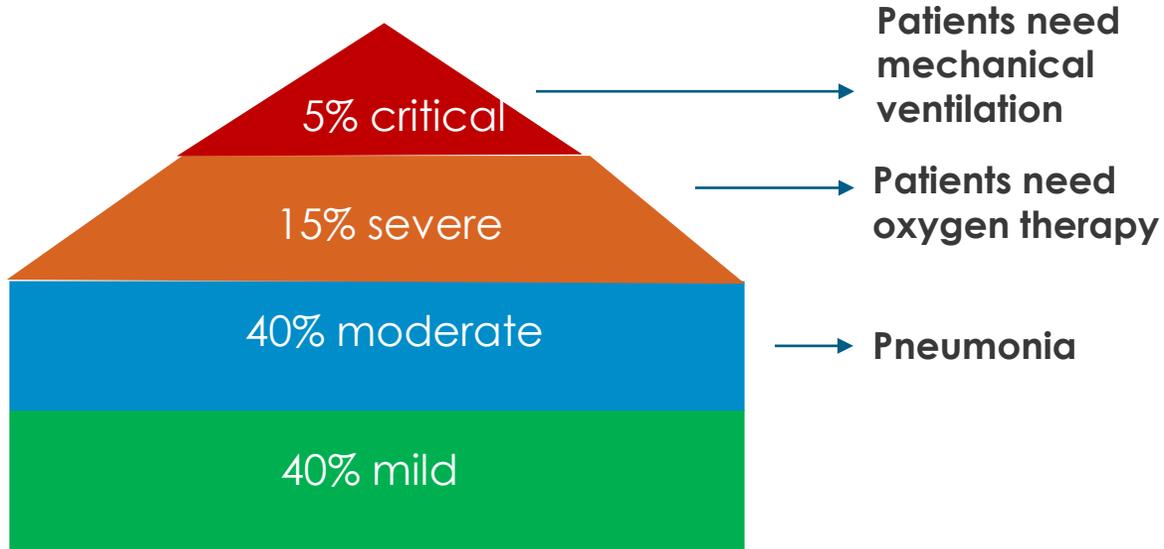New Cases of COVID-19 since 1 February 2020

**Prepare** the health system to face a significant increase in demand for care

17/03/2020

# "Flatten the curve"

*The steep curve represents exponential spread of the virus – the local health system will quickly become overloaded beyond its capacity to treat people.*

*The flatter curve assumes the same number of people get infected but over a longer period of time – a less stressed health system and potentially less deaths*

# cases

Without measures to slow transmission

Health system capacity

With measures to slow transmission

Time since first case

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# Rationale 1: severity profile of COVID-19

5% critical → **Patients need mechanical ventilation**

15% severe → **Patients need oxygen therapy**

40% moderate → **Pneumonia**

40% mild

There is no data from populations with high prevalence of HIV, malnutrition etc

Hypothetical estimate of numbers requiring hospitalization based on current size of outbreak:

| Country | Number of reported cases | 20% (# people requiring oxygen & ventilation) |
|---|---|---|
| Italy | 27,980 | 5,596 |
| Iran | 14,991 | 2,998 |
| Spain | 9,942 | 1.988 |
| Republic of Korea | 8,320 | 1,664 |
| Germany | 7,272 | 1,454 |

Based on the following assumption: all severe (15%) and critical cases(5%) require hospitalization.
These numbers represent the current situation (as of 17.03.2020) which will change as more cases are confirmed.

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# Rationale 2: measure the time from the appearance of the first few cases to a large outbreak…. approximately 2 weeks to prepare



Number of COVID-19 deaths per day in Italy and the Islamic Republic of Iran

Source: WHO Situation Reports

17/03/2020
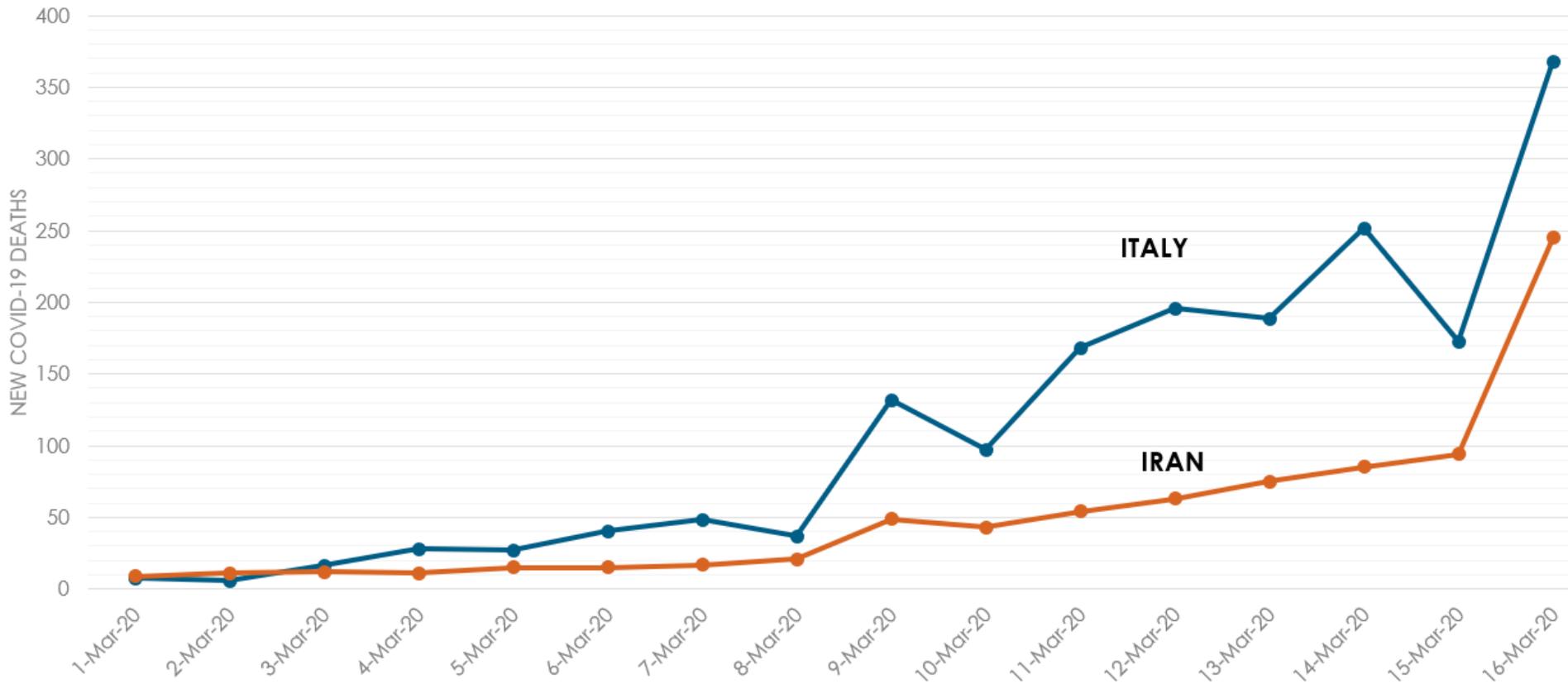
# Get the health system ready: **TRIAGE**

**AIM: prevent transmission in facilities and homes; do not overburden system;**

o Isolate COVID-19 patients from other patients and ensure proper infection prevention and control in facilities

o Establish screening at all health care facilities (primary health care centers and hospitals)

o Mild cases must be managed and isolated at home whenever possible

o Maintain essential services for prioritized health needs beyond COVID-19



"COVID cabanas" set up outside hospitals in Utah for screening of patients
Credit: Business Insider



Triage tents
Credit: TODAYonline

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# Get the health system ready: **SPACE and SUPPLIES**

**AIM: ensure capacity to treat severe and critical patients while maintaining essential health services**

o   Establish COVID-19 treatment areas with oxygen therapy and intensive care units with ventilation, where possible

o   Anticipate number of beds needed

o   Maintain a plan to expand capacity (repurposing of other facilities)

o   Plan for continuity of supplies and management of waste



Engineers in Italy use a 3D printer to print oxygen mask valves when supplies ran short.
https://3dprintingcenter.net/2020/03/15/italians-support-the-fight-against-the-covid-19-virus-by-3d-printing-valves-to-medical-equipment/



Credit: South China Morning Post

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# Get the health system ready: protect **HEALTH WORKERS**

**AIM: protect health workers for continued care and service**

o Ensure access to appropriate PPE for health workers

o Bring in surge capacity and strengthen measures to prevent burnout (restricted working hours, access to psychosocial support)

o Provide adequate compensation to health workers and their families in the event of a health worker falling ill or dying



Health workers in Italy
Credit: AFP & Business Insider



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# More information

**WHO sources:**

COVID-19 website: https://www.who.int/health-topics/coronavirus

WHO Travel Advice: https://www.who.int/ith/en/

Email: EPI-WIN@who.int

Website: www.EPI-WIN.com

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