



How Pakistan Addressed COVID-19: Public Health Interventions and Policy Response

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The start of the pandemic in Pakistan

- First two cases detected on 26 Feb 2020
- Both had travelled abroad
- Within 45 days cases reached 4601. 66 of these individuals died, while 727 recovered
- To contain the spread, Pakistan closed international borders on 13 Mar 2020
- All schools were closed the same day
- Later that month, a country wide lock down was imposed



Context: Pakistan's Health Care System

220,829 Registered Doctors

22,595 Registered Dentists

108,474 Registered Nurses

Pakistan GDP
spending on
healthcare
compared to a
10% global

average **For a Population of 212 Million**

(0.82 Physician/1000 population)

WHO Classification in
terms of its health
system to cope with the
effects of the
pandemic, only above a
few Sub-Saharan
countries

Manzoor *et al.*, 2020

WHO

Atif and Malik, 2020

Level-2 2%



Context: Pakistan's Health Care System

- 70% of health services are being provided by the private sector
- 1.6 pharmacists per 10,000 person population (5 pharmacists per 10,000 person population recommended by WHO)



Initial Challenges Faced

Lack of Medical Facilities

- During the initial stage of the pandemic, Pakistan lacked medical facilities and suspected samples were sent to China
- Only a few quarantine centers were available, with limited diagnostic and treatment facilities
- Many drugs and equipment needed were in short supply
- Health and care staff were stressed, laboratory facilities were strained, and emergency rooms under strain with Covid-19 patients



Initial Challenges Faced

Organizational and Policy gaps

- Legislation and policies regarding infection control and prevention were far below international standards
- Pakistan developed its first national infection guidelines in 2006, but implementation and compliance has been an ongoing challenge
- Public healthcare facilities did not have formal standard operating procedures (SOPs) that meet national guidelines on hospital infection control and prevention



Initial Challenges Faced

Compliance with public health guidance

- There was limited compliance with guidance provided by government on Covid-19
- Misinformation circulated, reinforcing violations of lockdown measures
- A particular issue was that some individuals perceived the pandemic as a conspiracy to prevent religious practices
- Thus the actions of the public will have contributed to transmission of the virus in parts of the country



Initial Challenges Faced

Community Level Issues

- About 25% of people in Pakistan live below the poverty line
- There are low levels of literacy in some parts of the population
- Two thirds (63%) of the population live in rural areas. Rural health centers are inadequate to cater for the needs of rural communities



Pakistan's Initial Response

The Ministry of National Health Services, Regulation & Coordination Pakistan published the “National Action Plan for Preparedness & Response to Covid-19” on 12 Feb 2020

- Set out measures to control the spread of the virus
- Identified mechanisms to strengthen country and community emergency preparedness in order to ensure a timely, efficient and effective response to Covid-19



Pakistan's Initial Response

Formulation of National Command and Operations Centre (NCOC) in early April

- **Compilation of data and the use of technology to help understand COVID-19 and plan for next steps**
- Clear and effective public messaging and behaviour change guidance
- **Coherent governance mechanisms to ensure consistency in the national response**



Pakistan's Initial Response

Public awareness

- Polio staff continued to engage shopkeepers, grocery stores, retailers, mosque imams and warehouse owners to address issues arising from the relaxation of the lockdown
- Use of Polio helpline (1166) for COVID-19
- **Media orientation and mobilization**
- Support from International Organizations

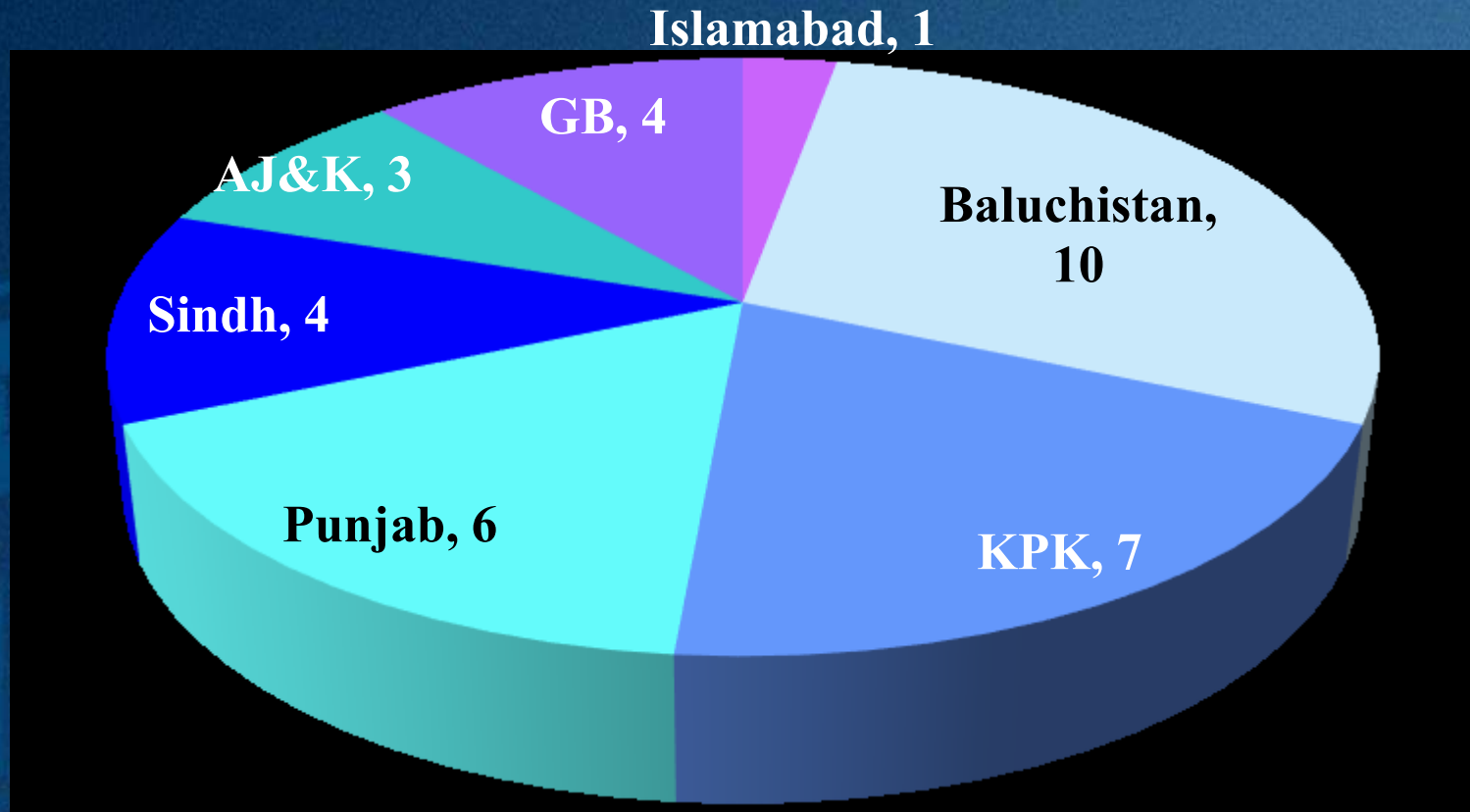
STRANDS OF PAKISTAN'S ANTI-COVID-19 STRATEGY



SOURCE: <https://newslab.tribune.com.pk/mystery-pakistan-covid-curve>

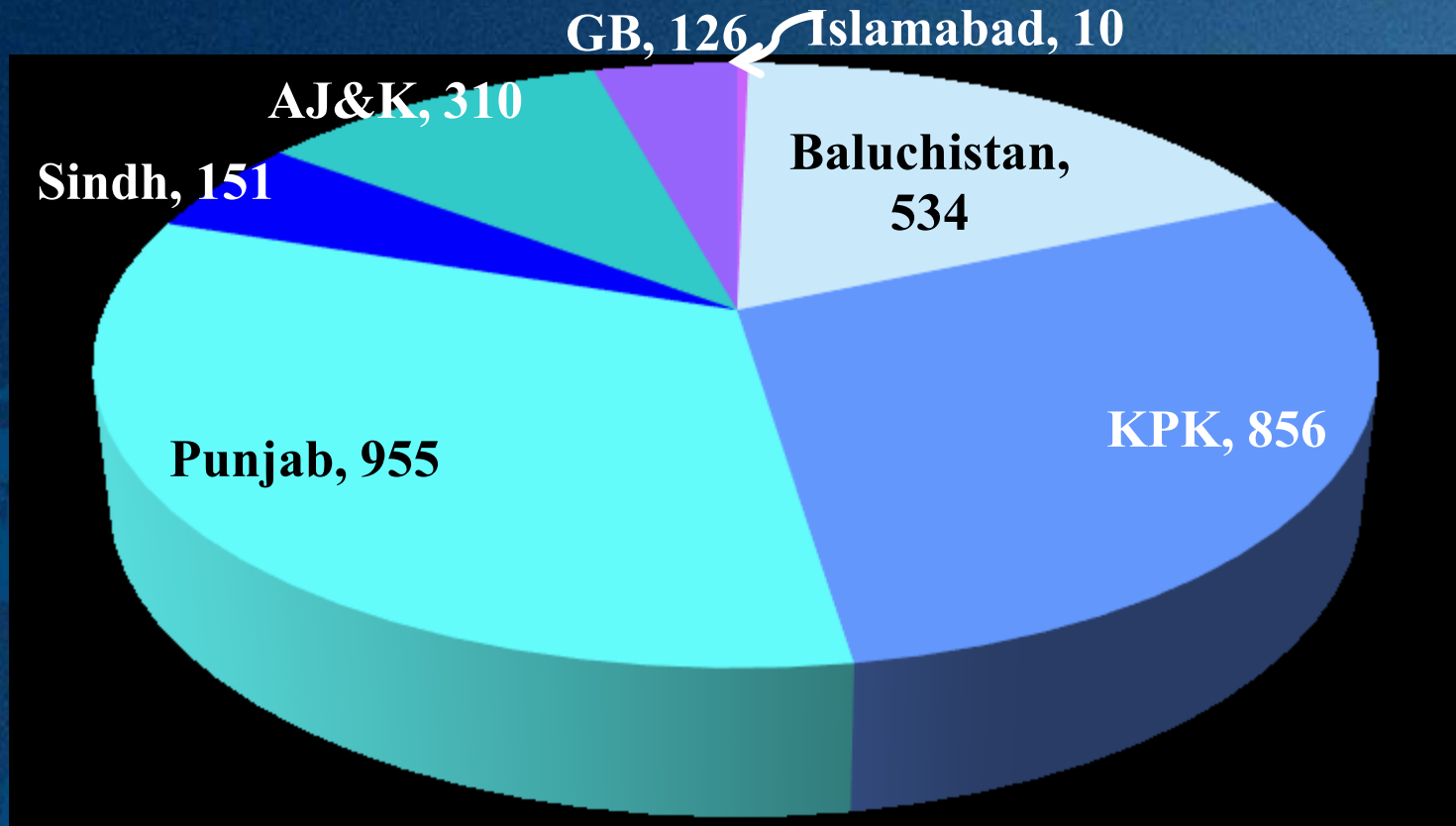
Public Health Interventions

Designated Hospitals



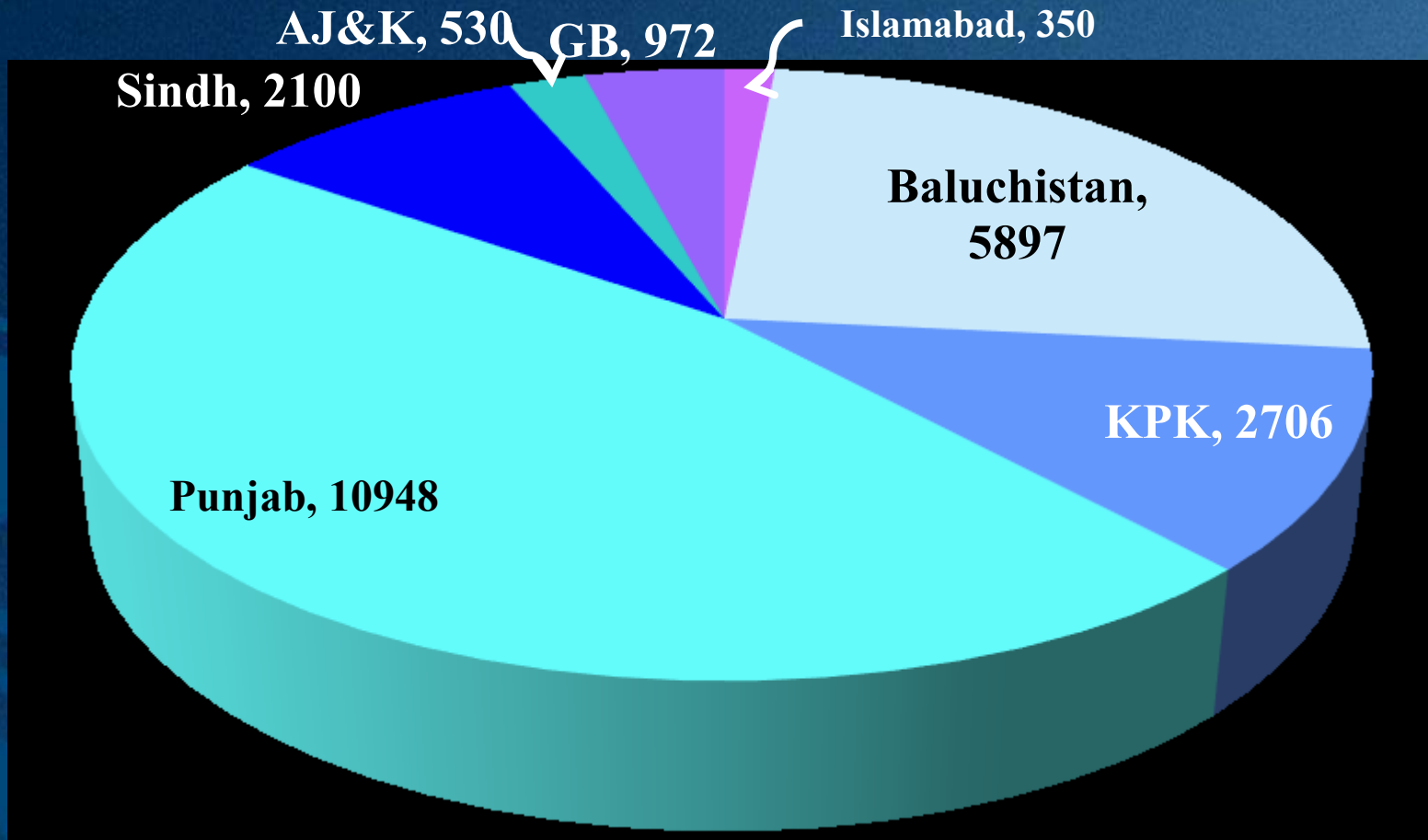
SOURCE: Waris et al., 2020

Isolation Centers



SOURCE: Waris et al., 2020

Quarantine Centers



SOURCE: Waris et al., 2020



Public Health Interventions

- ◉ WHO established test centers for COVID-19 in seven hospitals country-wide
- ◉ Closure of OPDs and elective surgical services from Mid April 2020 in all the Tertiary Care Hospitals, District Headquarters Hospitals and Private Clinics
- ◉ Testing Capacity varied between 30,000 to 50,000



Policy Response

- ◉ Established a COVID-19 Relief Fund to receive donations
- ◉ Allocated Rs.144 Billion for 12 Million families @ Rs. 12000/- financial assistance under “Ehsaas Emergency Program”
- ◉ Electricity and utility bill subsidies for small and medium sized businesses
- ◉ Social network helplines were launched by the Government in seven local languages
- ◉ Trace, test and quarantine (TTQ) strategy
- ◉ Implemented localized lockdowns in over 200 hotspots across 30 cities

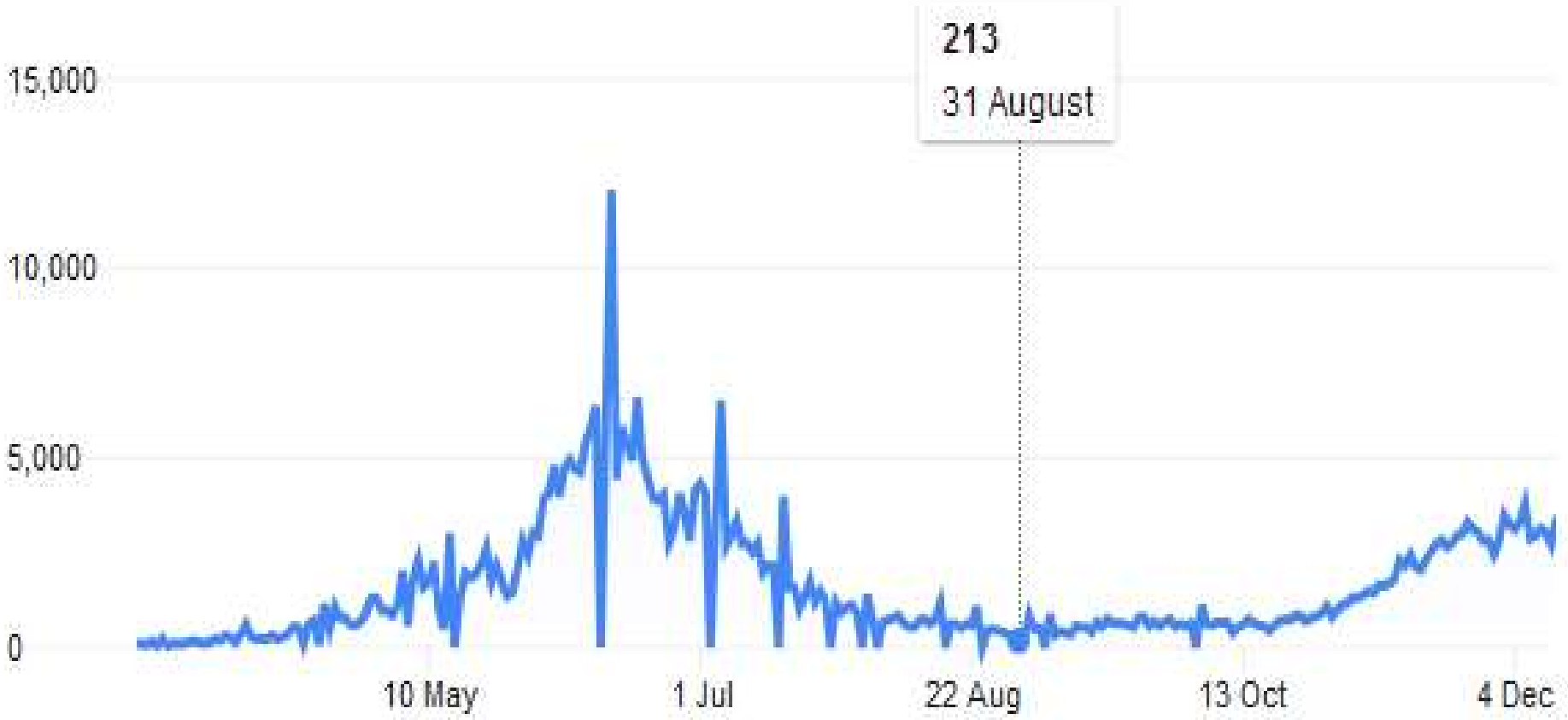


Policy Response

- Allocation of special funds to federal and provincial health departments
- Training of doctors, paramedics and medical lab technicians
- Development of Standard Operational Protocols (SOPs) nationally for the health department
- Special funds allocation and measures to cope with the economic impact of COVID-19
- Launch of a terrestrial television channel to meet the educational needs of students from kindergarten level to year twelve



End of First Wave



SOURCE: JHU CSSE COVID-19 Data

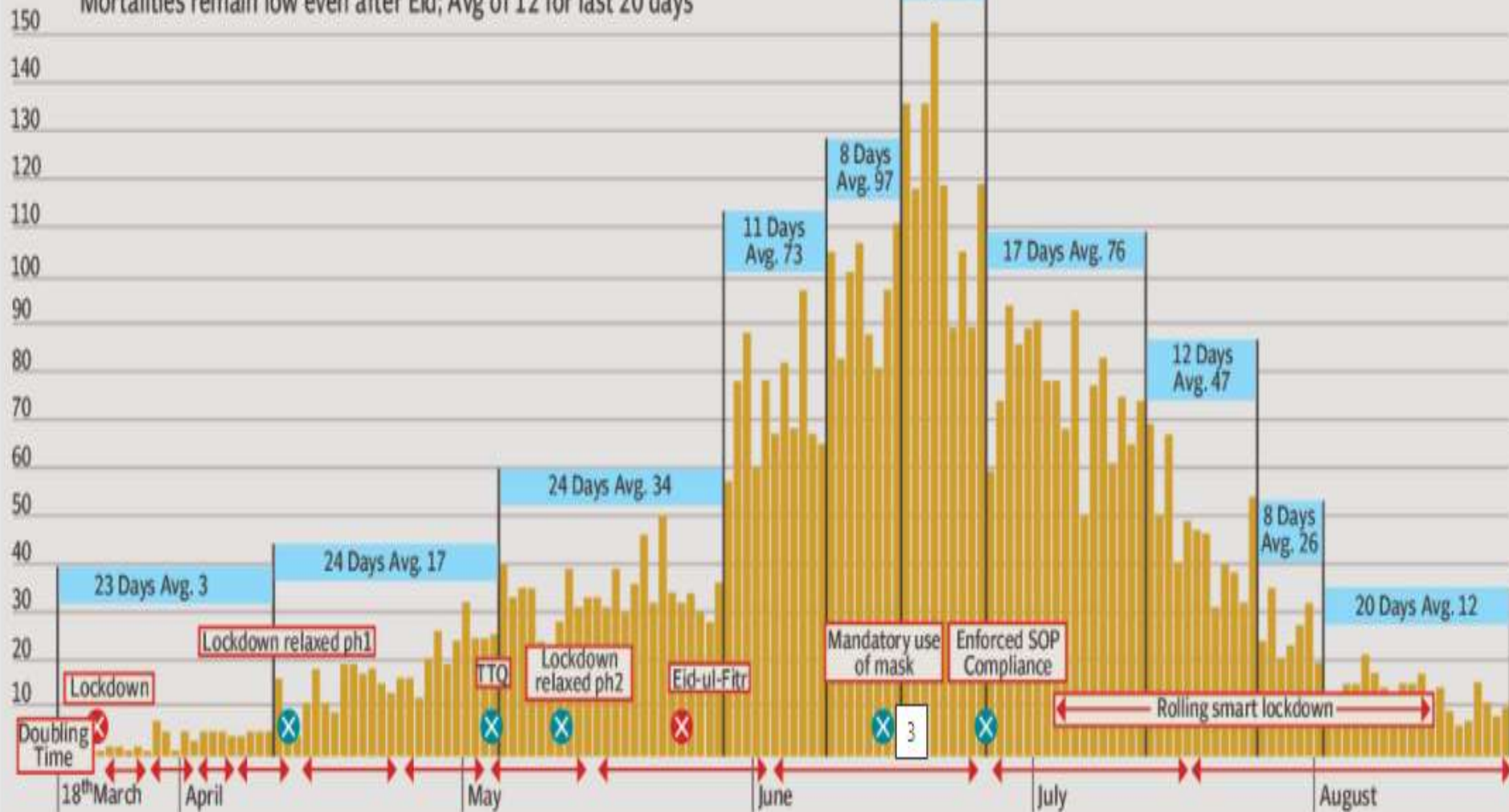
DECLINING CASE POSITIVITY PERCENTAGE

- Positivity rate is persistently holding in low single digits - Ro is also lower than 1, however has started creeping up
- High vigilance pd: restaurants / tourism / Muharram / school opening



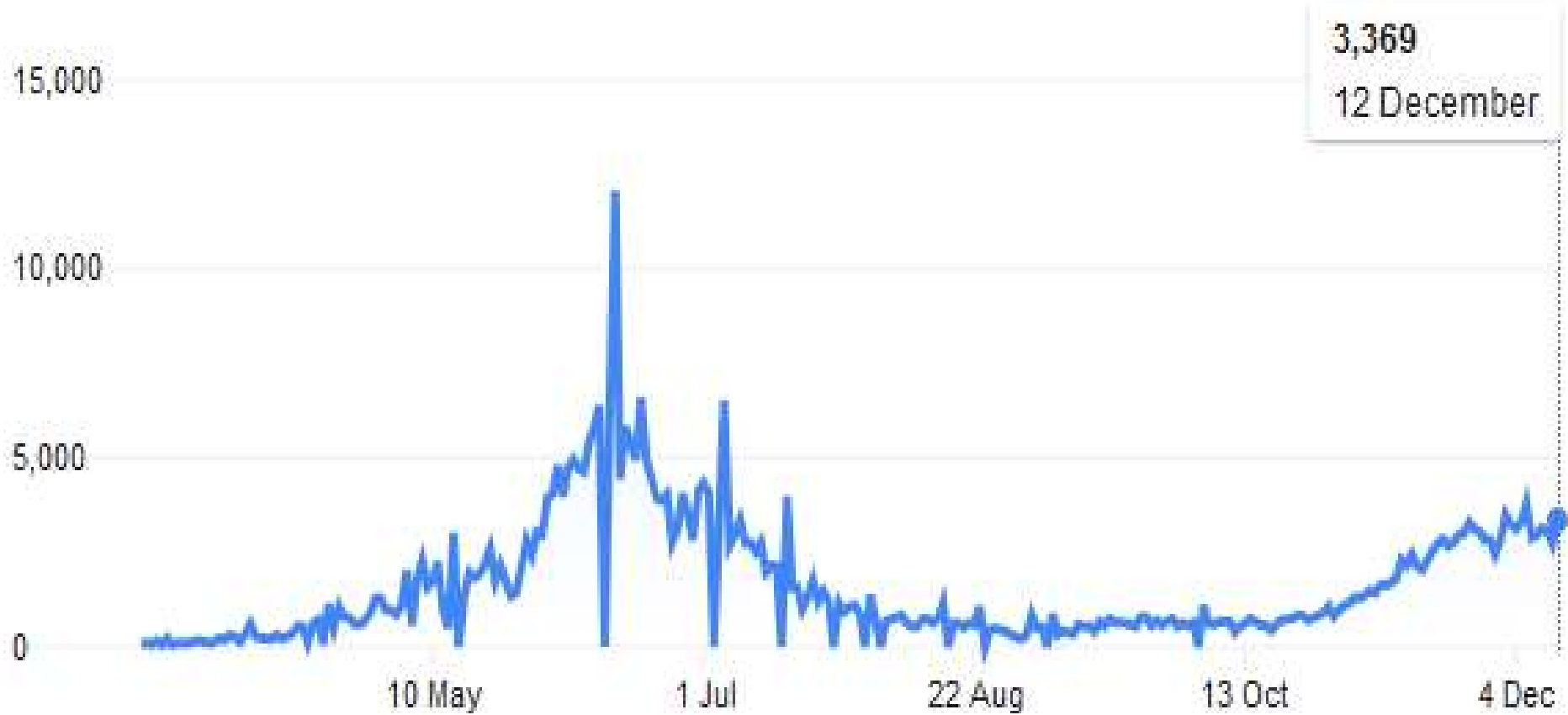
REDUCED MORTALITIES

Mortalities remain low even after Eid; Avg of 12 for last 20 days





COVID-19 Second Wave



SOURCE: JHU CSSE COVID-19 Data

COVID-19 Present Situtaion

Confirmed Cases

443246



Critical

2495



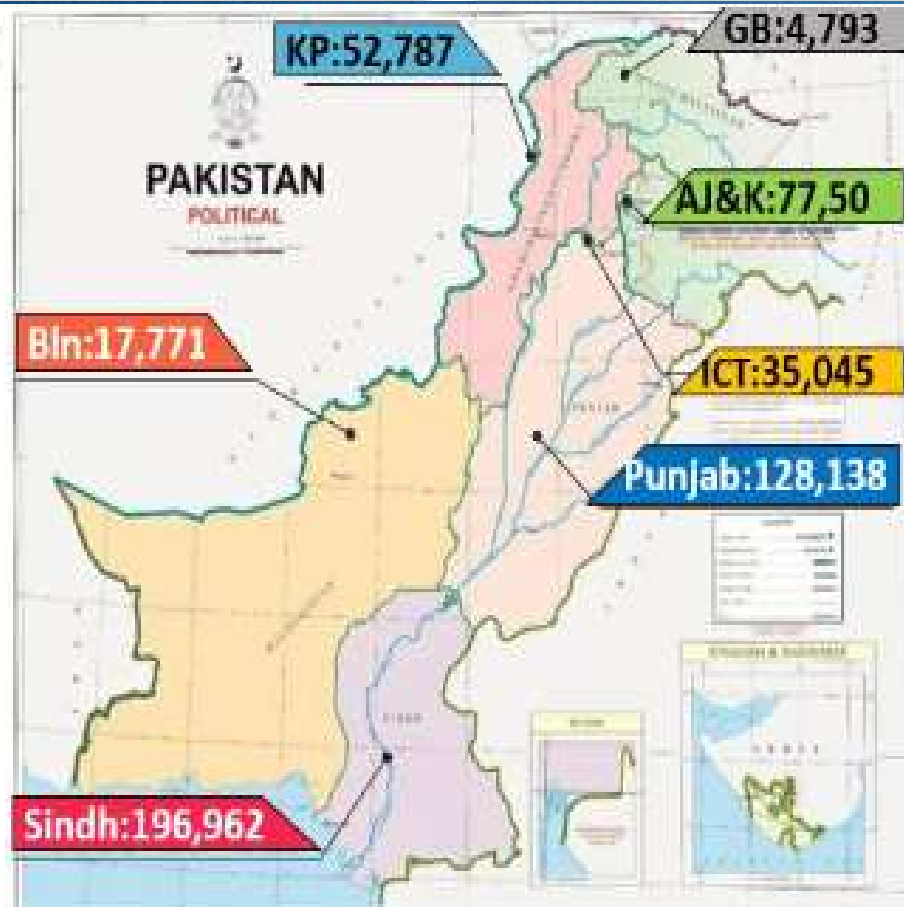
Deaths

8905



Recovered Cases

386333





Population level advantages?

- Average age in Pakistan is 22 years, compared to 41 years in the UK
- Just 4% of Pakistan's population is 65 years and above
- Majority population (63%) are living in rural areas
- Majority of the population are Muslim, where practicing hygiene is part of religious practices 5 times a day (*Abdul, 2020; Mehmet, 2020; Callum, 2020; Momeni, 2020*)
- Self Medication (*Ventola, 2015*)



COVID-19 Response Summary

- ◉ Using technology to create awareness & promote public health guidelines
- ◉ Ensuring food security
- ◉ Protecting businesses
- ◉ Supporting health care facilities
- ◉ Promoting respect for health-care workers
- ◉ Adopting a "whole nation" approach

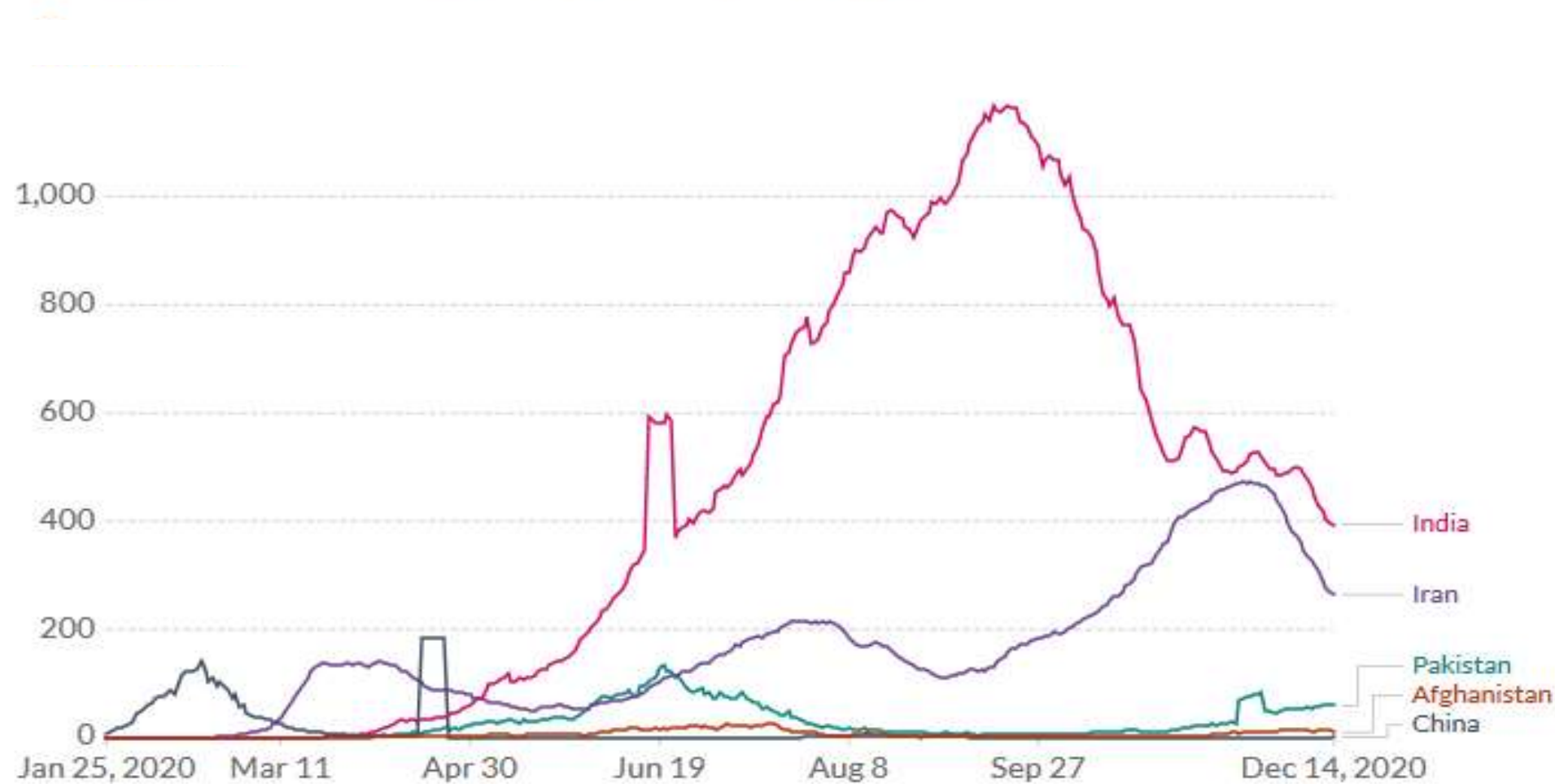
Comparison: Pakistan & Neighbours



Our World
in Data

Daily confirmed COVID-19 deaths, rolling 7-day average

Limited testing and challenges in the attribution of the cause of death means that the number of confirmed deaths may not be an accurate count of the true number of deaths from COVID-19.



Source: www.ourworldindata.org/coronavirus last updated 15 December, 16:07 (London time)

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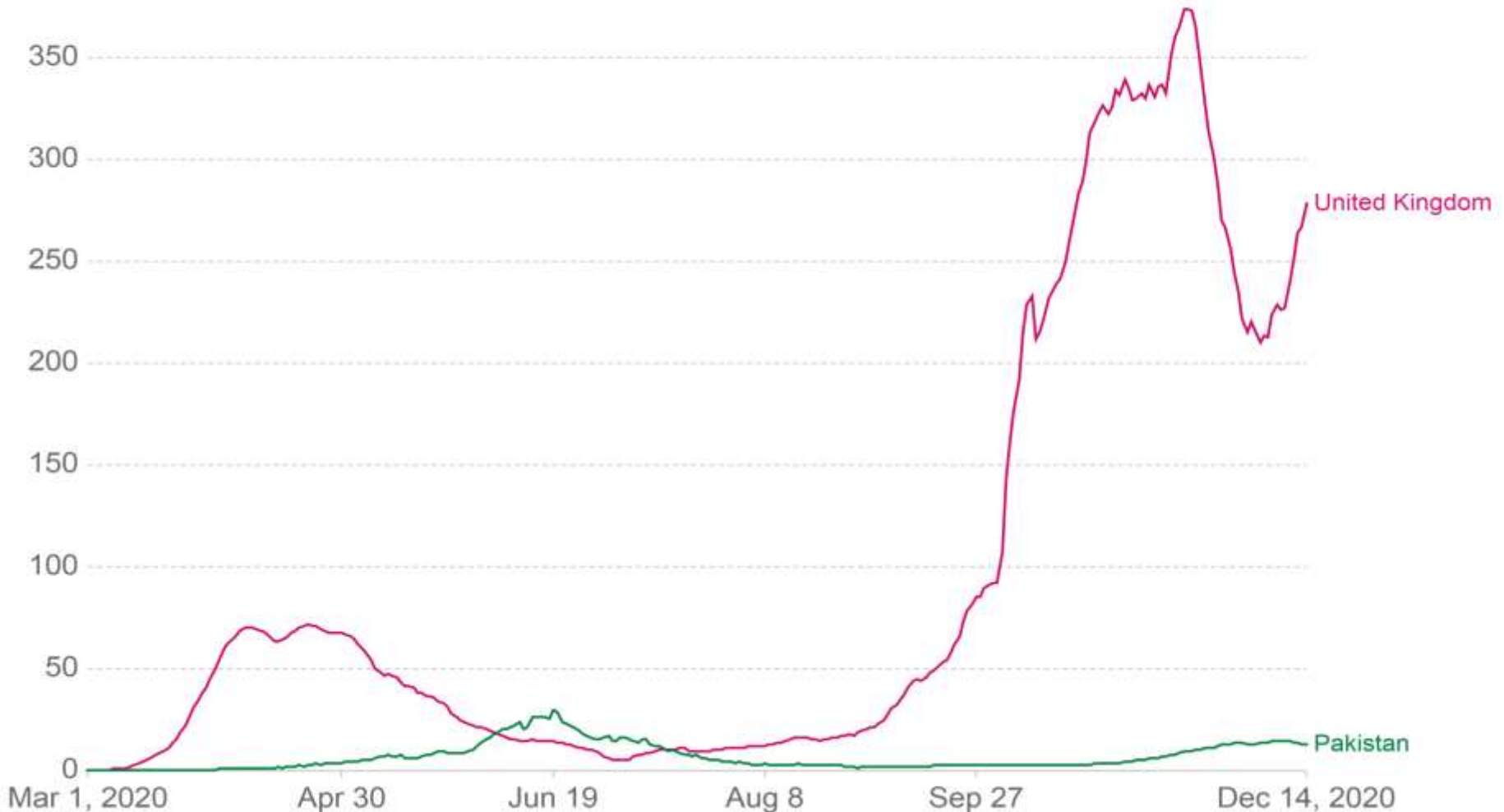
Comparison UK & Pakistan



Our World
in Data

Daily new confirmed COVID-19 cases per million people

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.



Source: www.ourworldindata.org/coronavirus Last updated 15 December, 06:07 (London time)

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Some Interesting Facts



**Funeral of Khadim Hussain Rizvi on
22 Nov**
Lahore positivity rate 4.74%



Mass Gathering in Gujranwala on 13 Nov
Latest positivity rate Less than 1%



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