

COVID and the Older Adults:

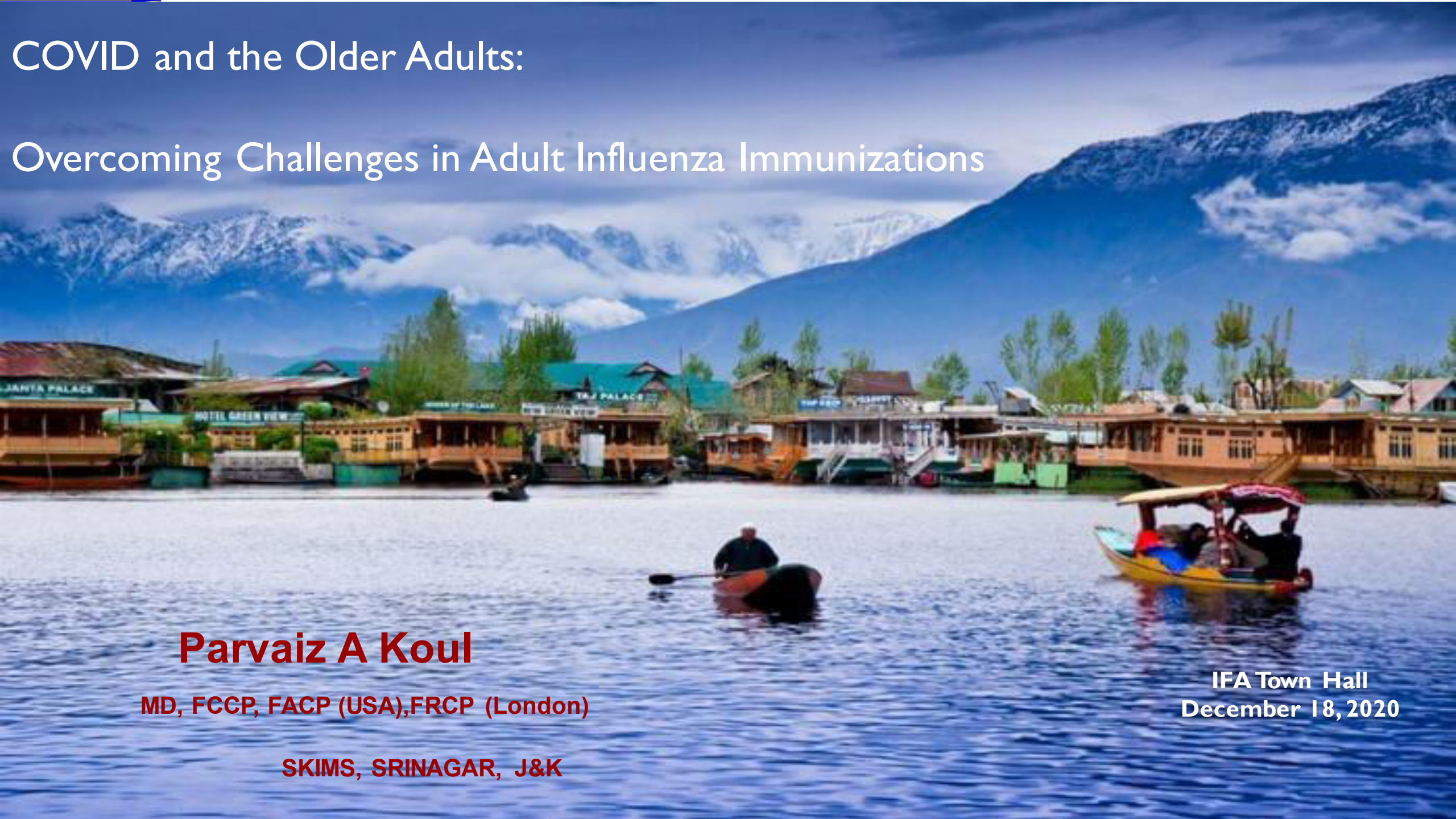
Overcoming Challenges in Adult Influenza Immunizations

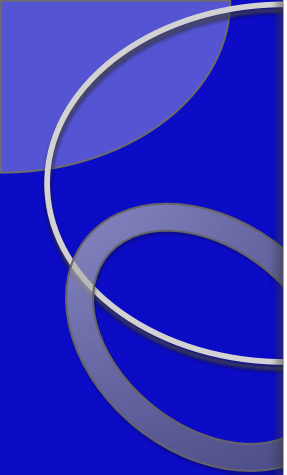
**Parvaiz A Koul**

**MD, FCCP, FACP (USA), FRCP (London)**

**SKIMS, SRINAGAR, J&K**

**IFA Town Hall  
December 18, 2020**

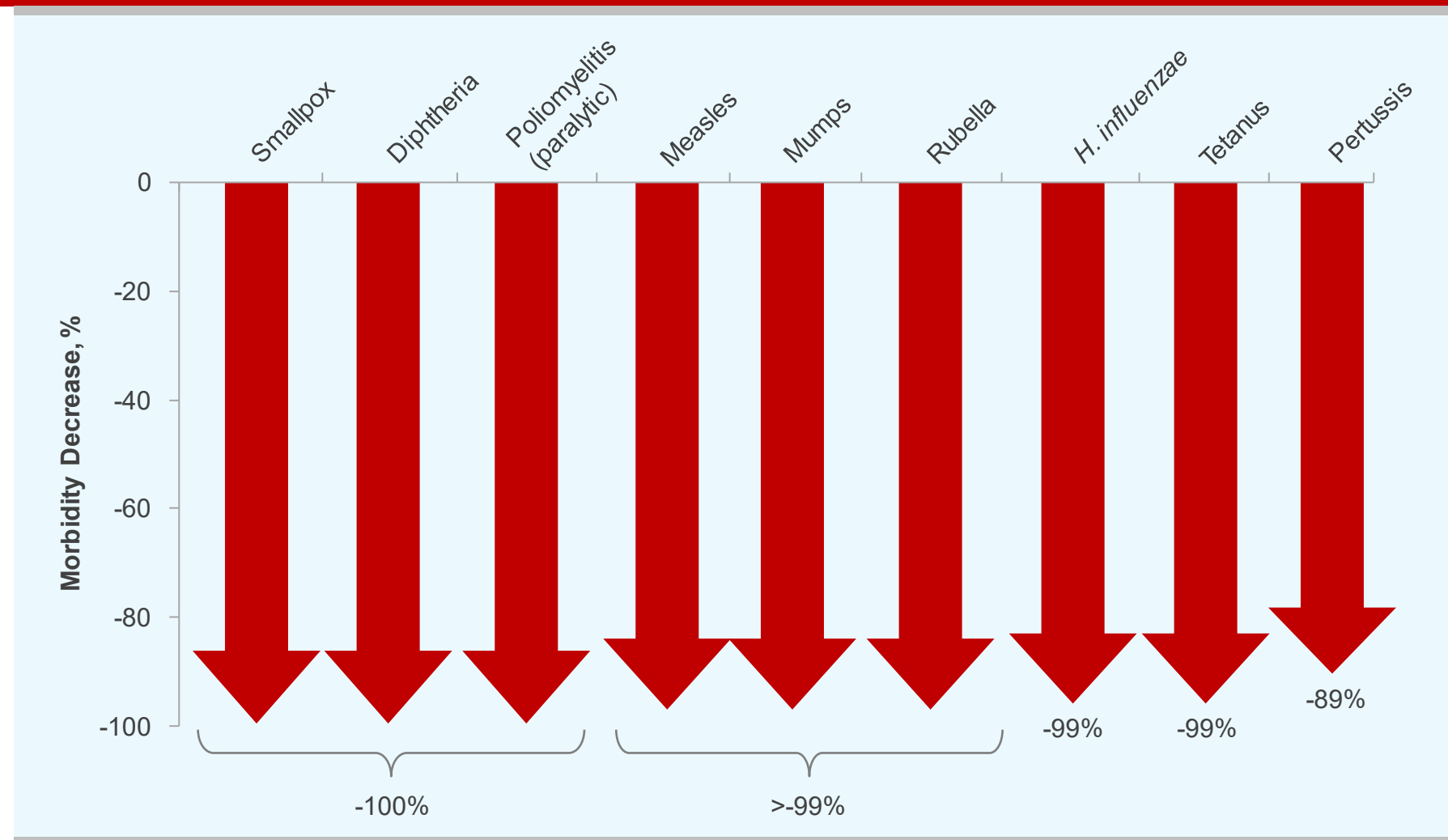




Immunization is one of public health's most successful and cost-effective interventions, saving up to three million lives every year

# Percent Morbidity Decrease

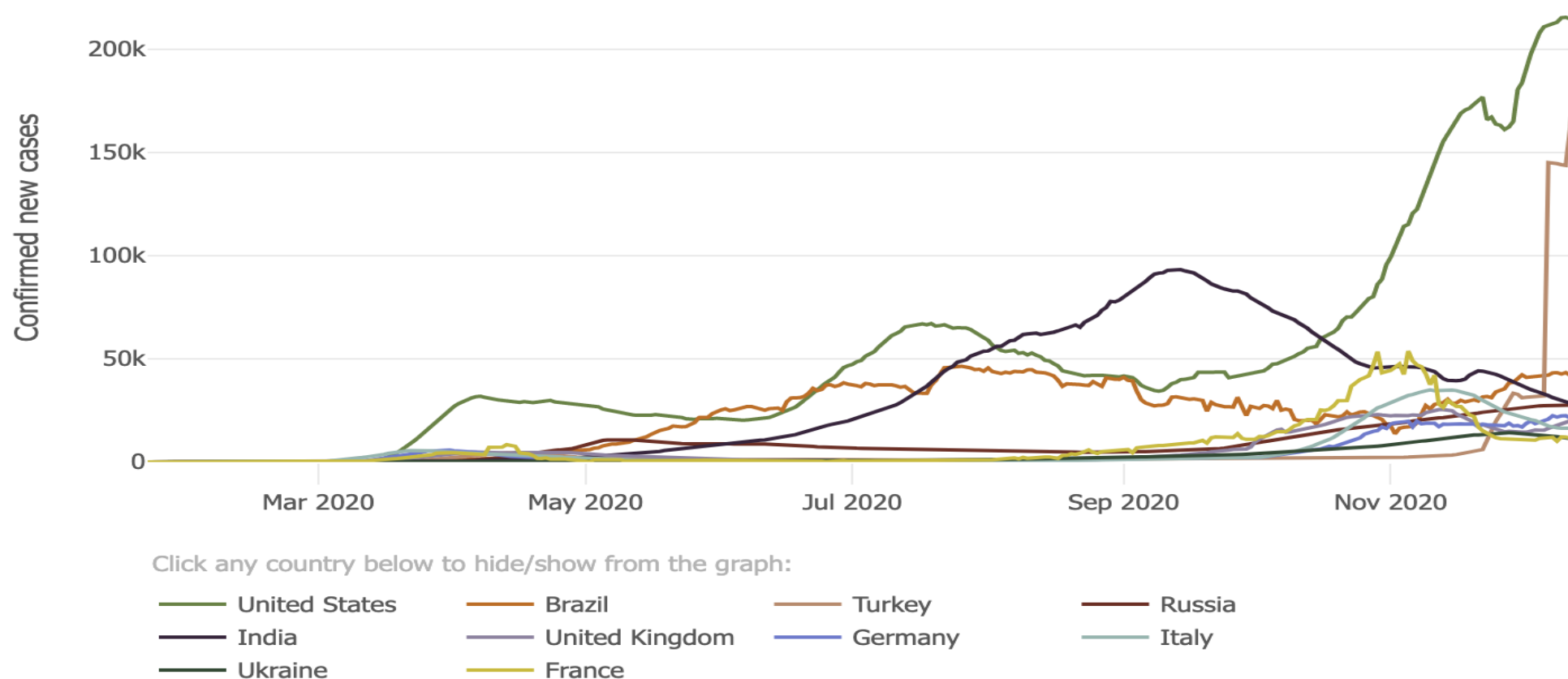
Prevaccination (Baseline 20<sup>th</sup> Century) to Postvaccination (2009); All Ages



CDC. *Morb Mortal Wkly Rep.* 1999;48(12):243-248.

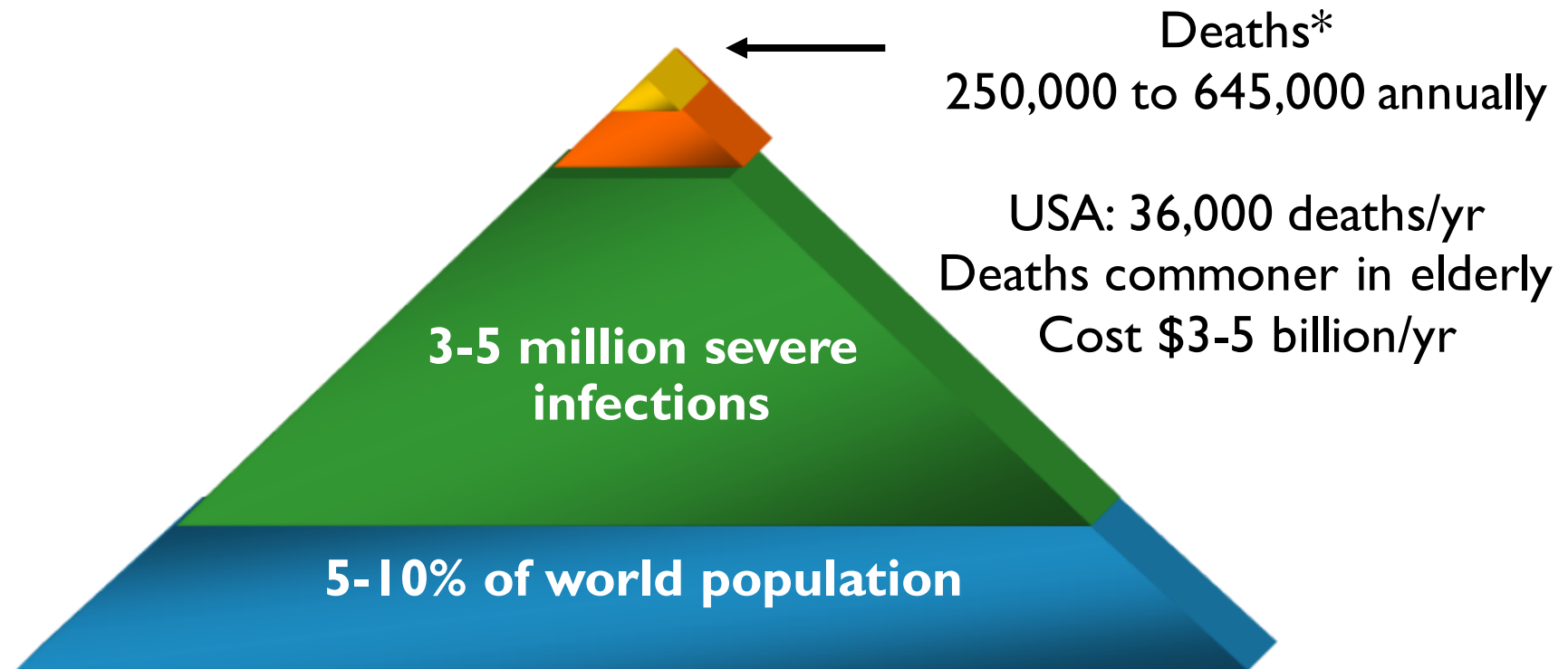
CDC. *Morb Mortal Wkly Rep.* 2010;59:1025-1039.

# Trends in detection of new cases of COVID 19

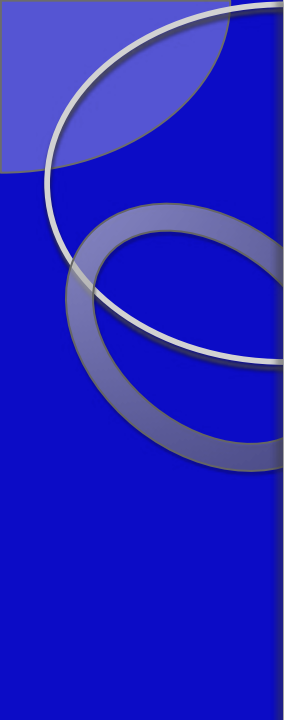


**With the novel coronavirus still infecting thousands of people a day, public health officials worry that a bad flu season could overwhelm hospitals and clinics that are already stretched thin.**

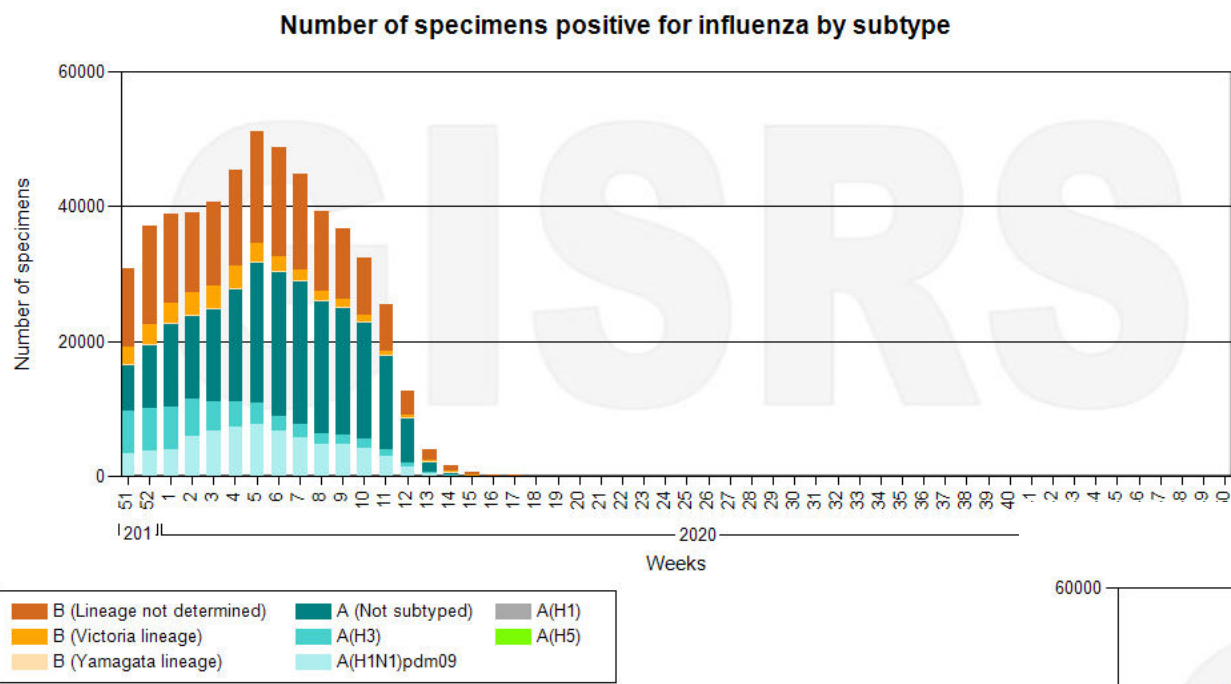
# Burden of seasonal Influenza Disease



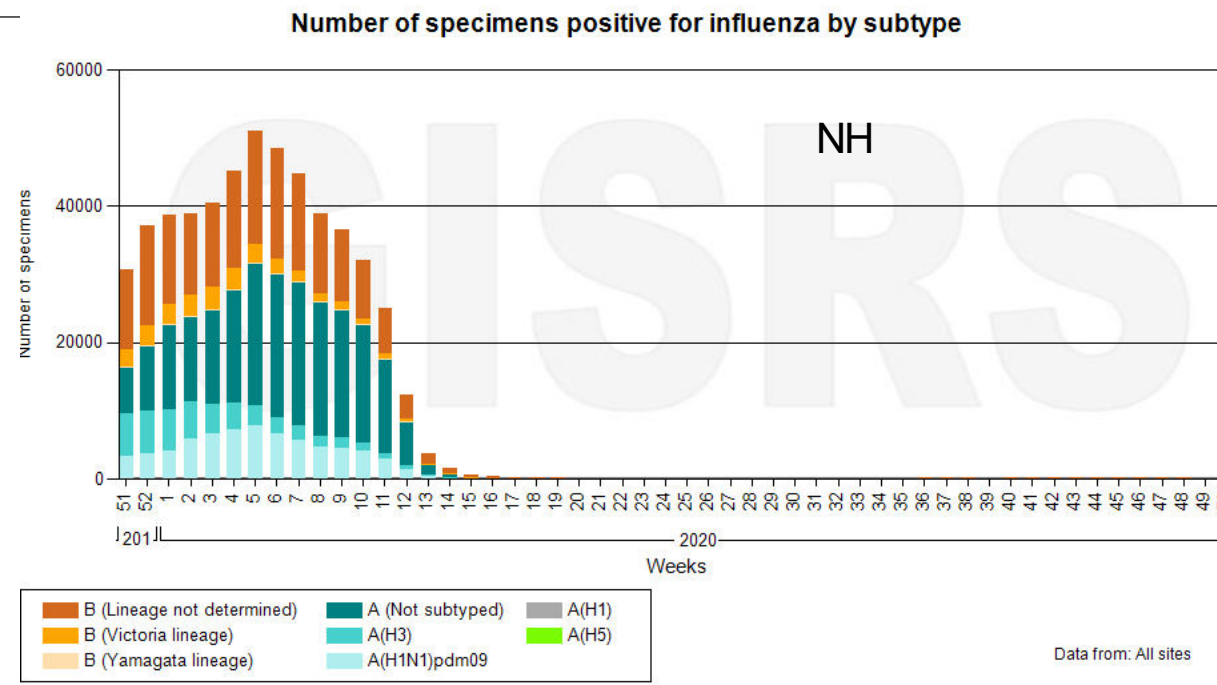




# Global circulation of Influenza Viruses

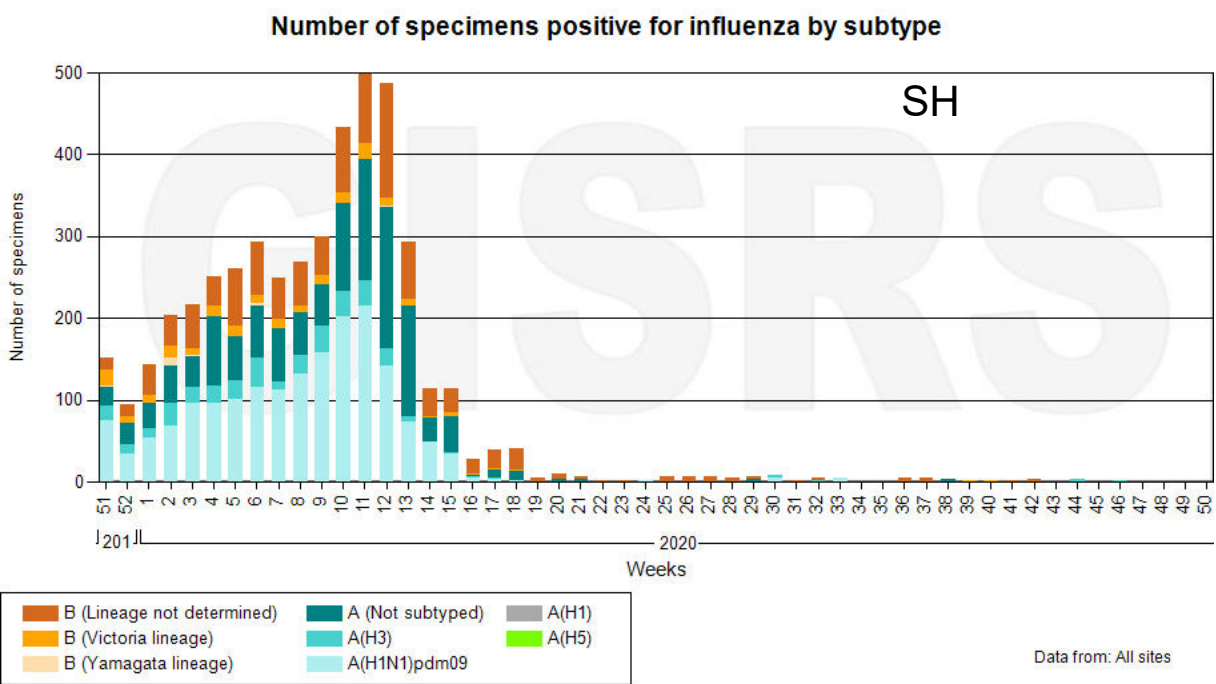


Global



NH

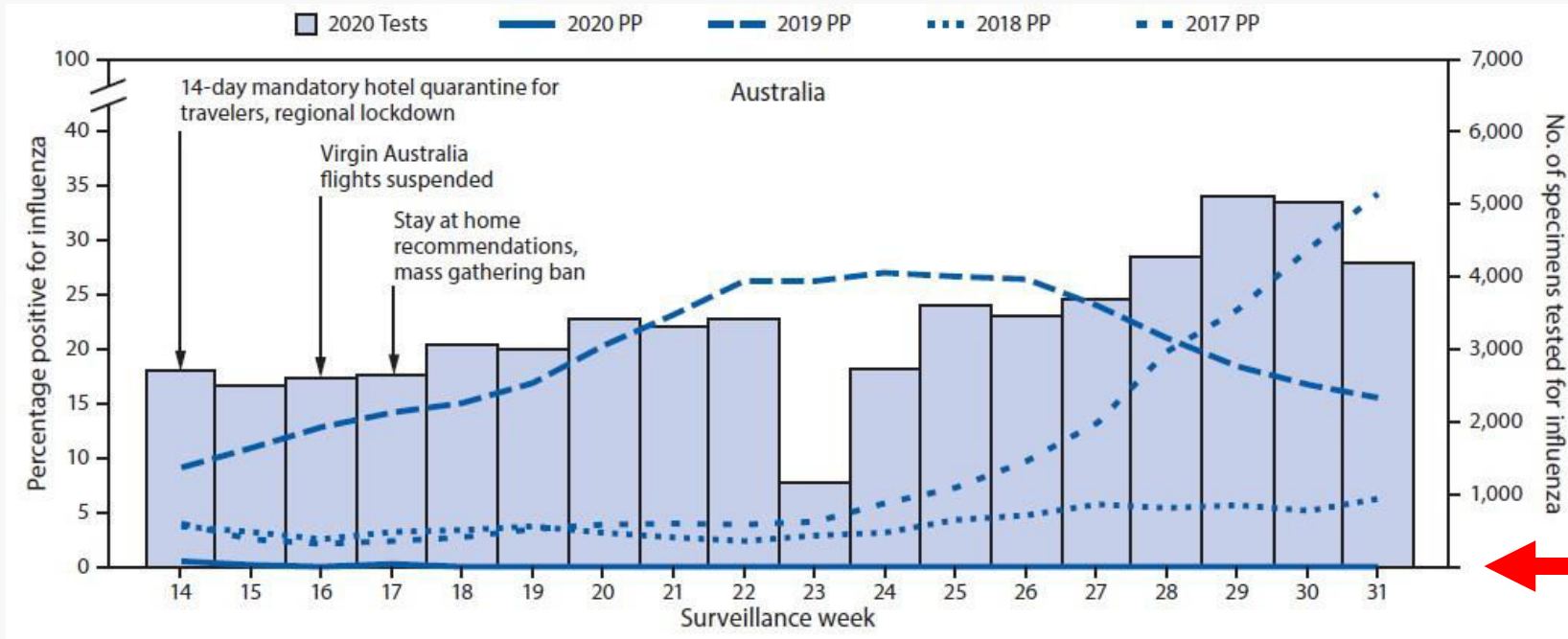
Data from: All sites



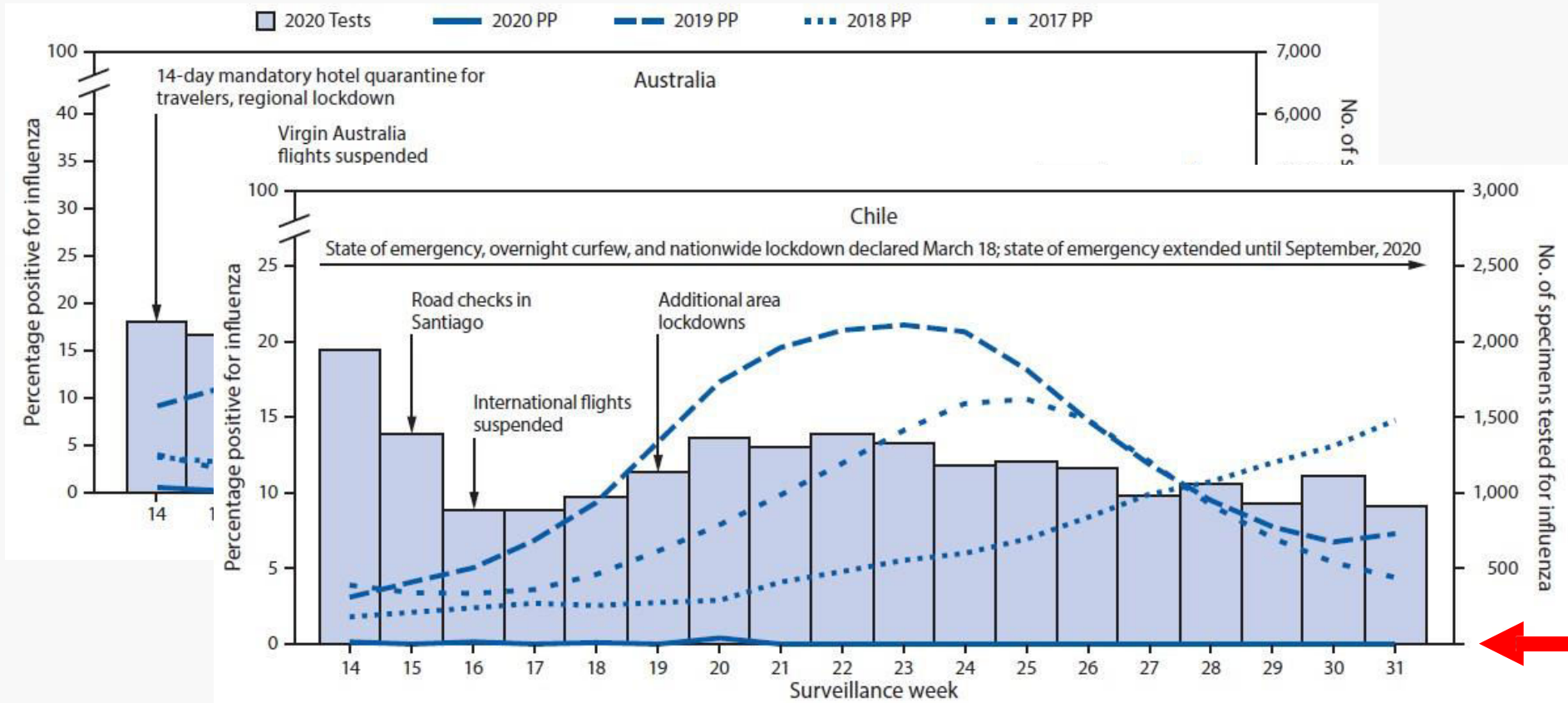
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Data from: All sites

# Southern Hemisphere: Australia, Chile, and South Africa v Influenza Virus Circulation



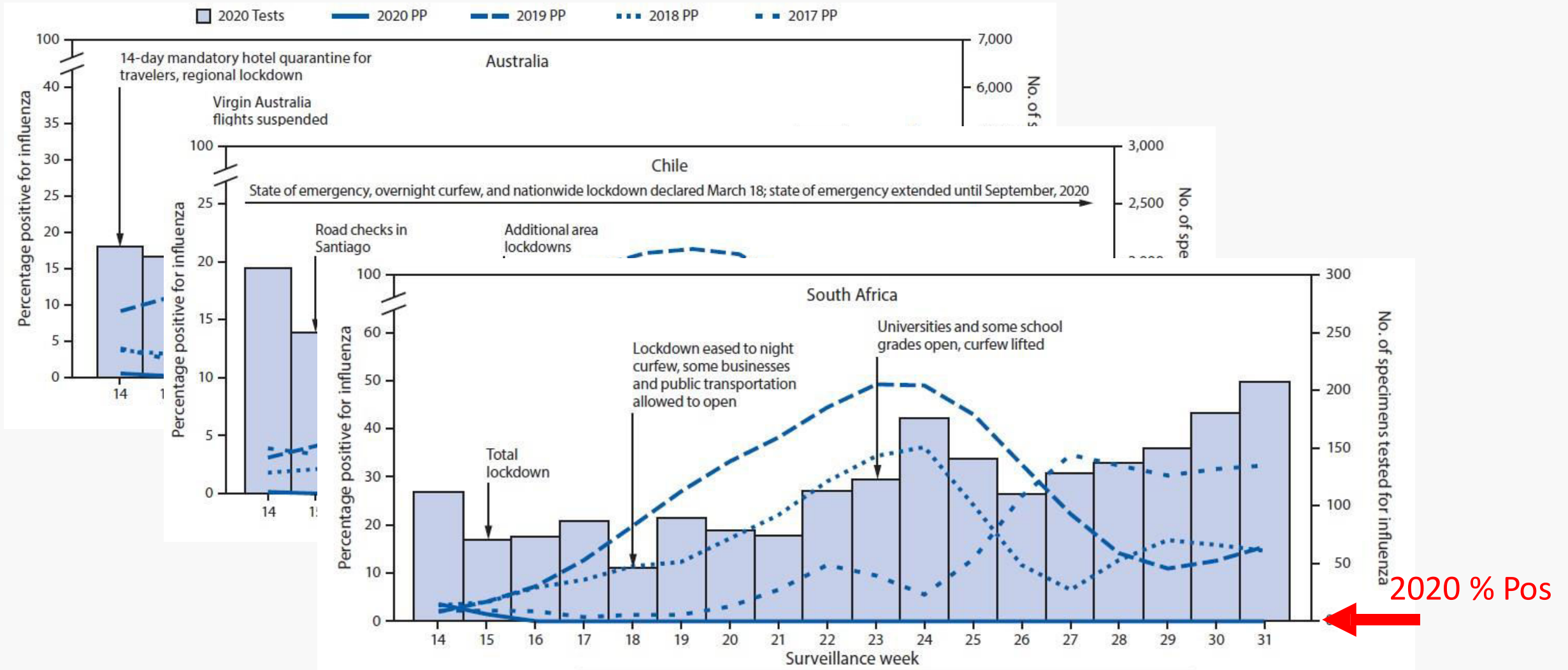
# Southern Hemisphere: Australia, Chile, and South Africa v Influenza Virus Circulation



2020 % Pos



# Southern Hemisphere: Australia, Chile, and South Africa v Influenza Virus Circulation





**1918: Spanish flu claimed >50 million lives**



# 1918 pandemic! Deaths in Indians

>15 million  
perished in  
the short span of  
one year, was the  
single worst-  
affected  
country in terms  
of total mortality.

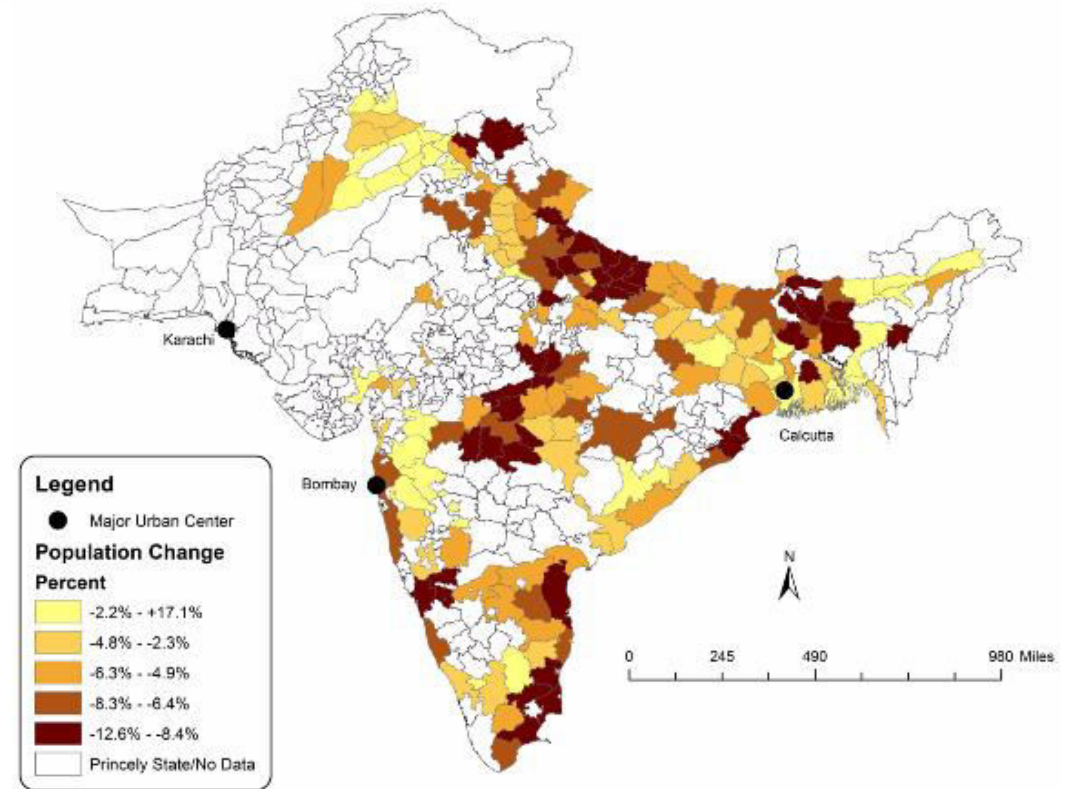


Figure 3 Population change in India, 1918–1919.

Davis K. The Population of India and Pakistan. Princeton, NJ: Princeton University Press; 1951.

# Influe

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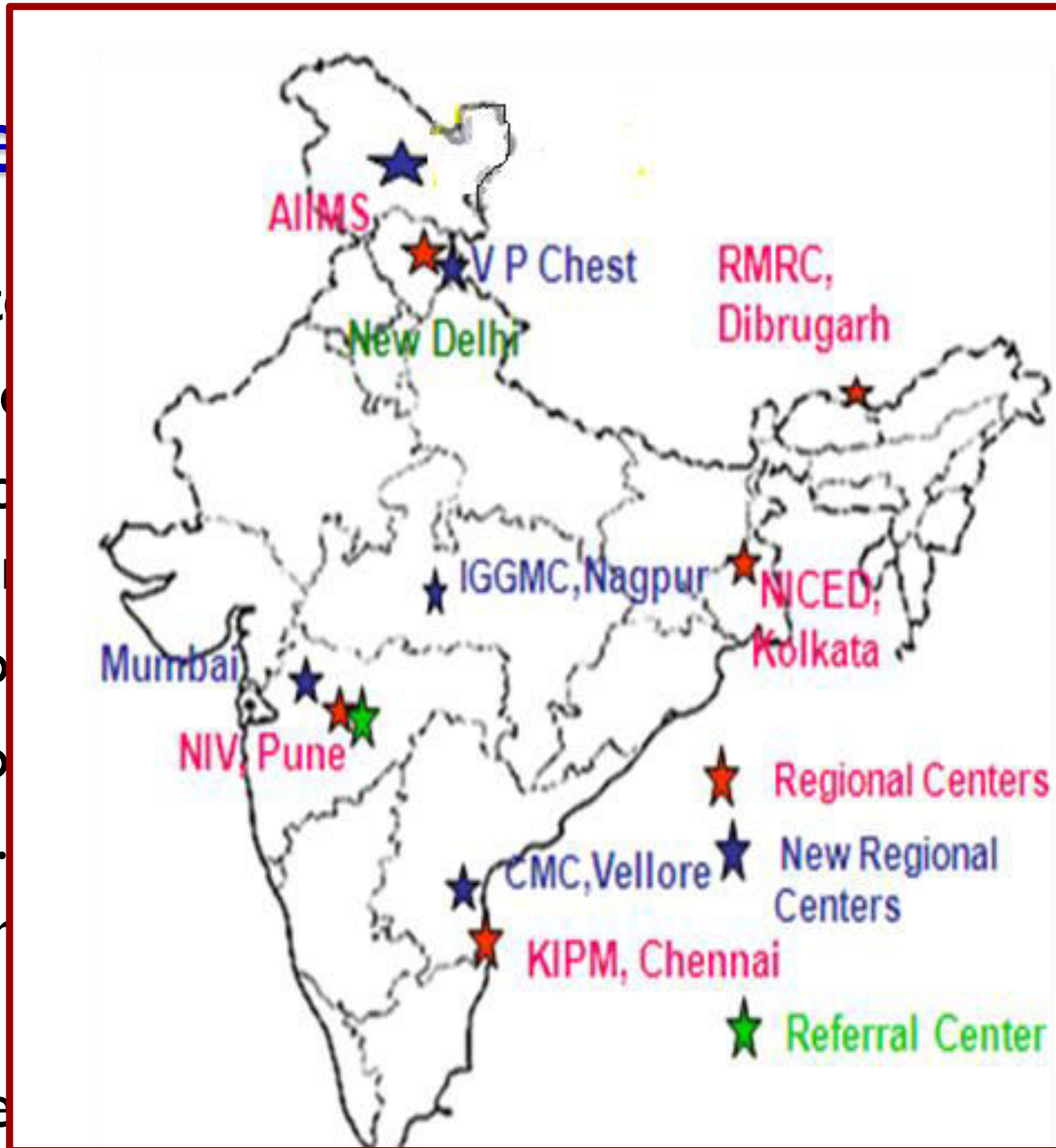
India.

Sever

Pune

Influe

frequencies in adjoining villages.



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950 and 1957.

m several areas in

Maharashtra by NIV,

enza in various

# Pandemic and seasonal influenza viruses among patients with acute respiratory illness in Kashmir (India)

Parvaiz A. Koul,<sup>a</sup> Muneer A. Mir,<sup>b</sup> Nargis K. Bali,<sup>a</sup> Mamta Chawla-Sarkar<sup>c</sup>, Mehuli Sarkar<sup>c</sup>, Samander Kaushik,<sup>b</sup> U.H. Khan<sup>a</sup>, Feroze Ahmad<sup>a</sup>, Babara Carter<sup>d</sup>, Renu Lal<sup>d</sup>, Chakha Broor<sup>b</sup>

<sup>a</sup>Sheri-Kashmir Institute of Medical Sciences, Srinagar, India  
<sup>b</sup>National Institute of Cholera and Enteric Diseases, Faridkot, Punjab, India  
<sup>c</sup>Centers for Disease Control and Prevention, Atlanta, Georgia, USA  
<sup>d</sup>Department of Virology, All India Institute of Medical Sciences, New Delhi, India



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## Resurgence of A/H1N1pdm09 influenza viruses in winter 2012-2013 in Kashmir, India

AUGUST 14, 2013 · RESEARCH

Print Article

Citation

PDF, XML

Email

Tweet

### AUTHOR

Dr Parvaiz Koul MD, FACP, FCCP, FRCP Umar Hafiz Khan Umar khan drkhurshid835@gmail.com  
shobha.broor@gmail.com Dr. Renu LAL niv.influenza@gmail.com

## The 2015 Outbreak of Severe Influenza in Kashmir, North India: Emergence of a New Clade of A/H1n1 Influenza Virus

AUGUST 8, 2018 · RESEARCH ARTICLE

### An outbreak of influenza B in an isolated nomadic community in Jammu & Kashmir, India

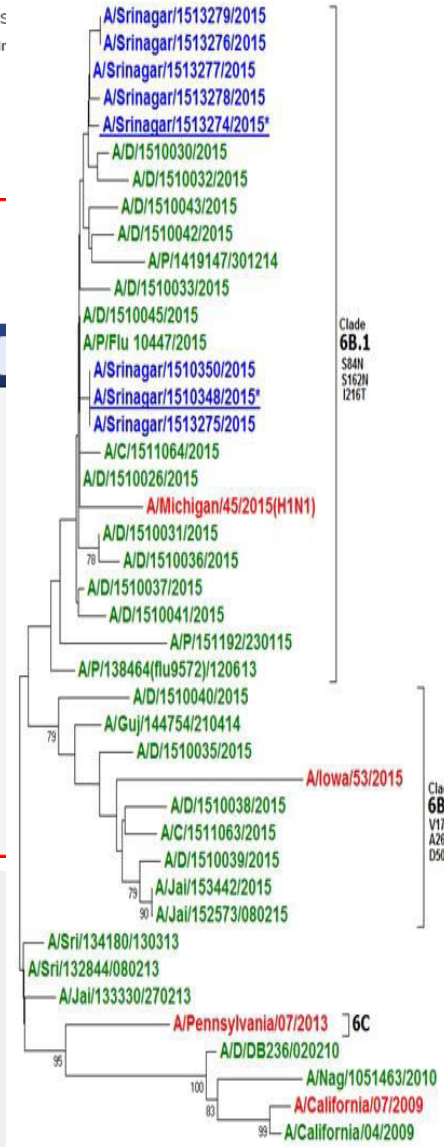
Umar H Khan<sup>1</sup>, Muneer A Mir<sup>2</sup>, Feroze Ahmad<sup>1</sup>, M Hussain Mir<sup>1</sup>, Nargis K Bali<sup>2</sup>, Renu Lal<sup>3</sup>, Chakha Broor<sup>4</sup>

<sup>1</sup> Department of Internal & Pulmonary Medicine, Sher-i-Kashmir Institute of Medical Sciences, Srinagar, India

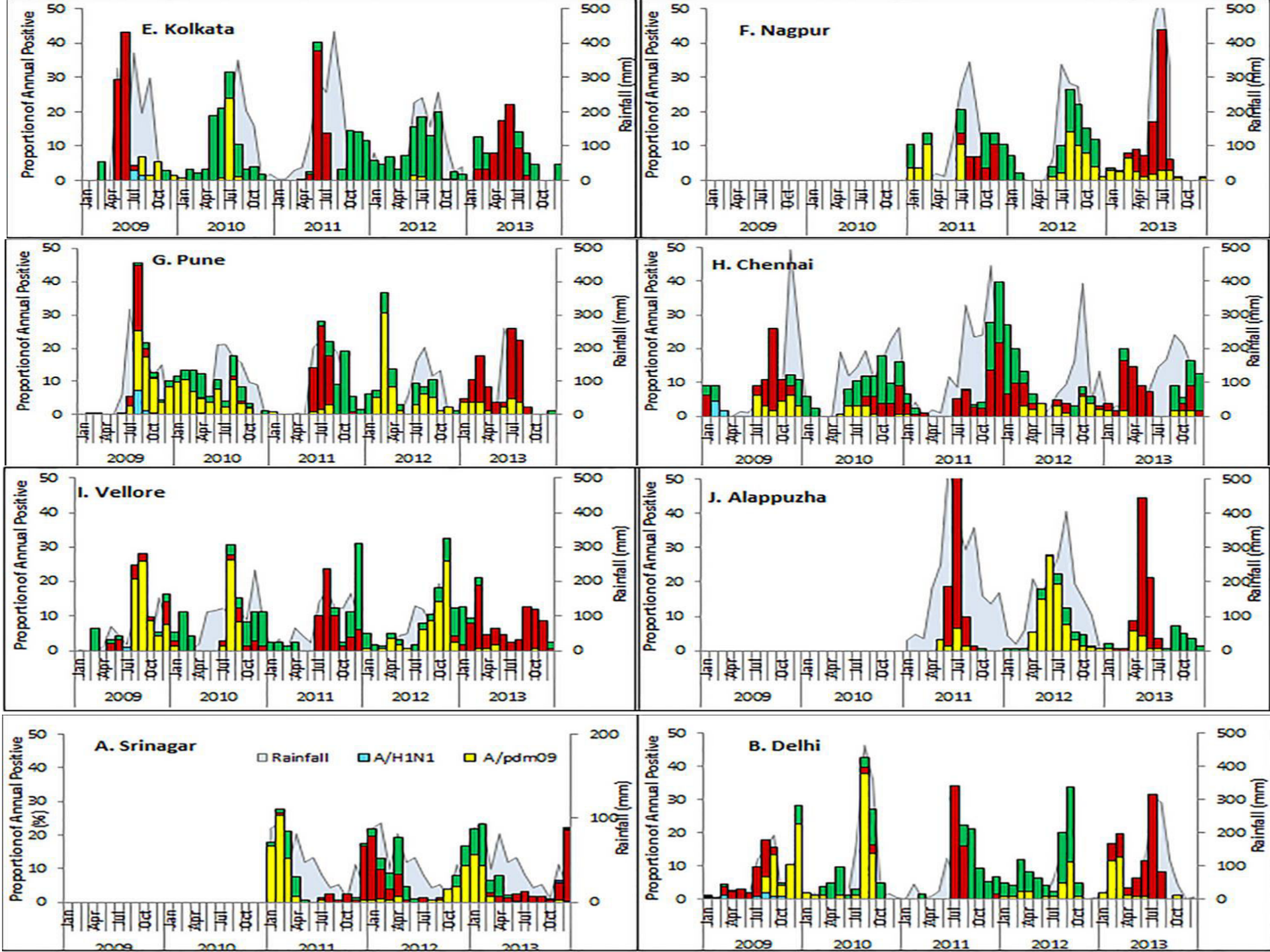
<sup>2</sup> Department of Clinical Microbiology, Sher-i-Kashmir Institute of Medical Sciences, Srinagar, India

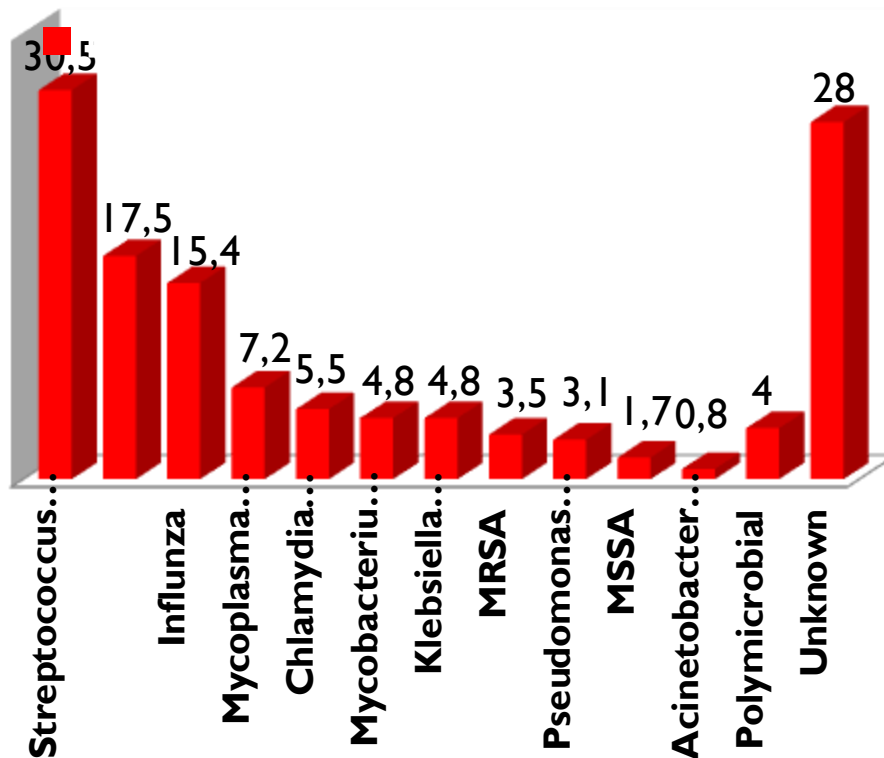
<sup>3</sup> Influenza Division, Center for Disease Control & Prevention (CDC), Atlanta, Georgia, USA

<sup>4</sup> Department of Virology, All India Institute of Medical Sciences, New Delhi, India





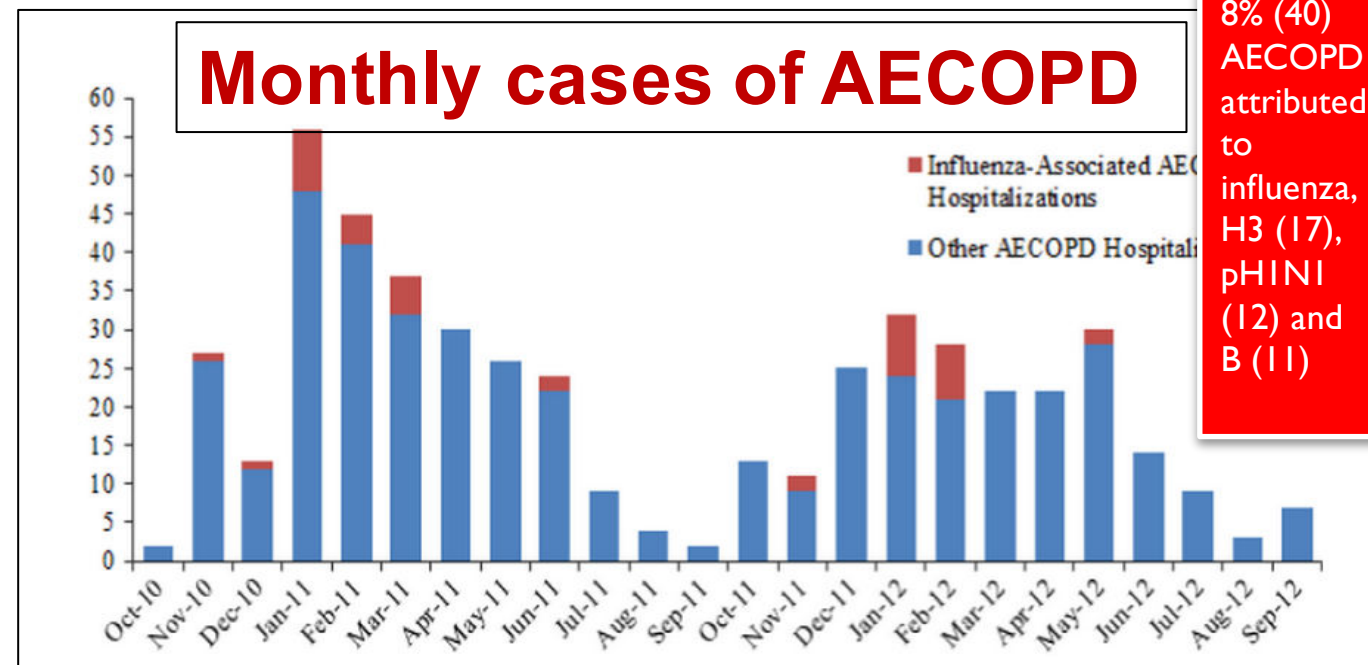




## CAP pathogens

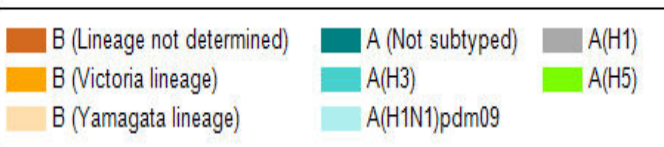
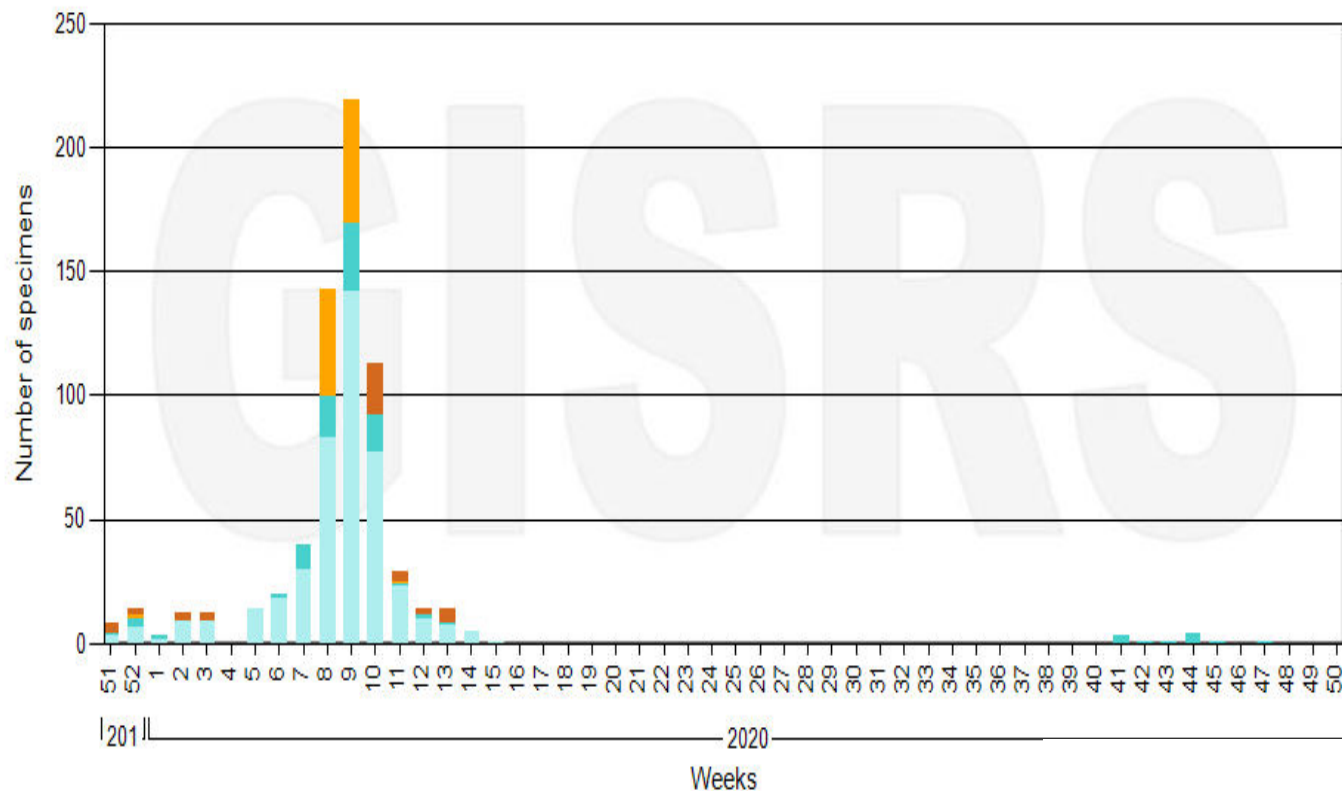
Para RA, Fomda BA, Jan RA, Shah S, Koul PA. Microbial etiology in hospitalized North Indian adults with community-acquired pneumonia. Lung India 2018;35:108-15.

Koul et al. (2015) Contribution of influenza to acute exacerbations of chronic obstructive pulmonary disease In Kashmir, India, 2010–2012. Influenza and Other Respiratory Viruses 9(1), 40–42.



## Influenza Illness in Pregnant Indian Women A Cross-Sectional Study

Number of specimens positive for influenza by subtype



India

Coronavirus Cases:

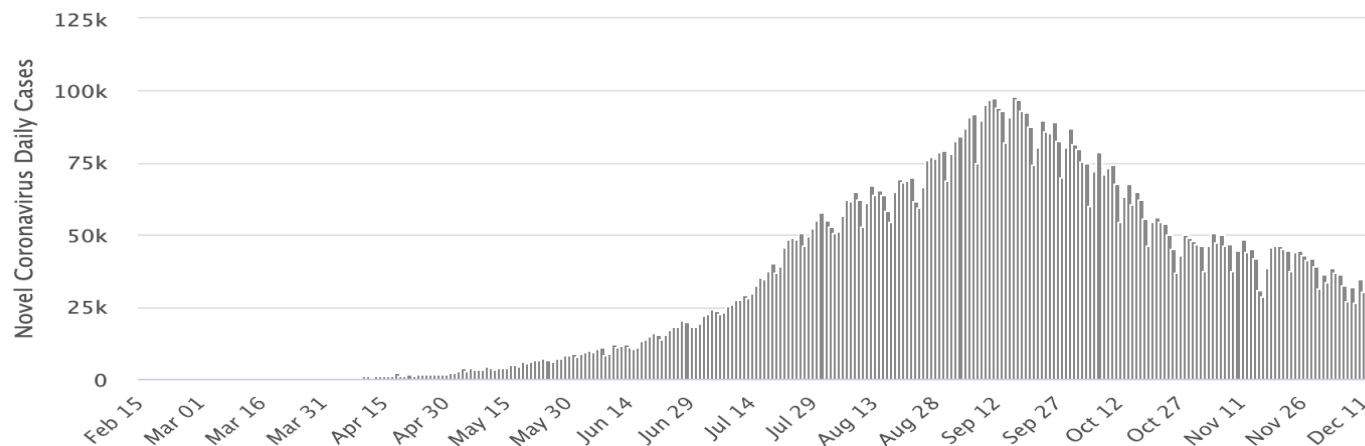
9,906,507

Deaths:

143,746

Daily New Cases

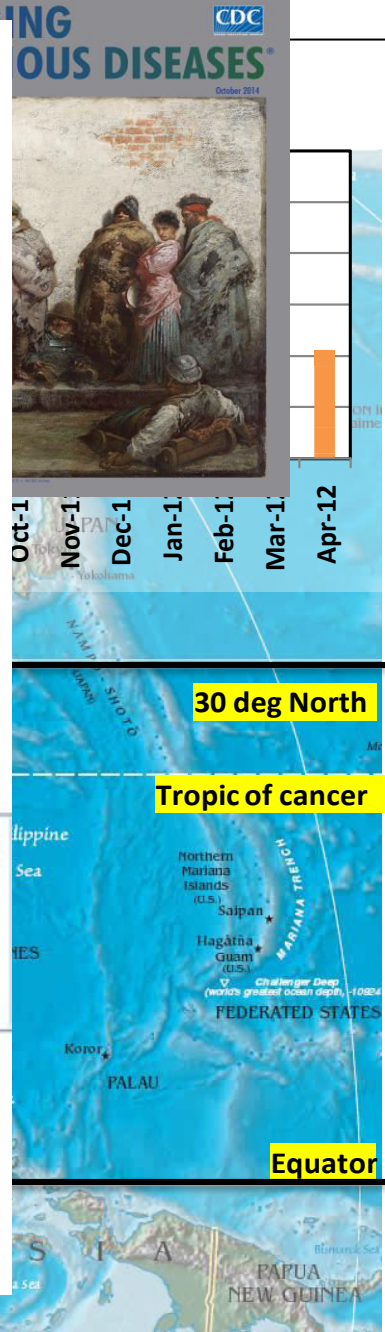
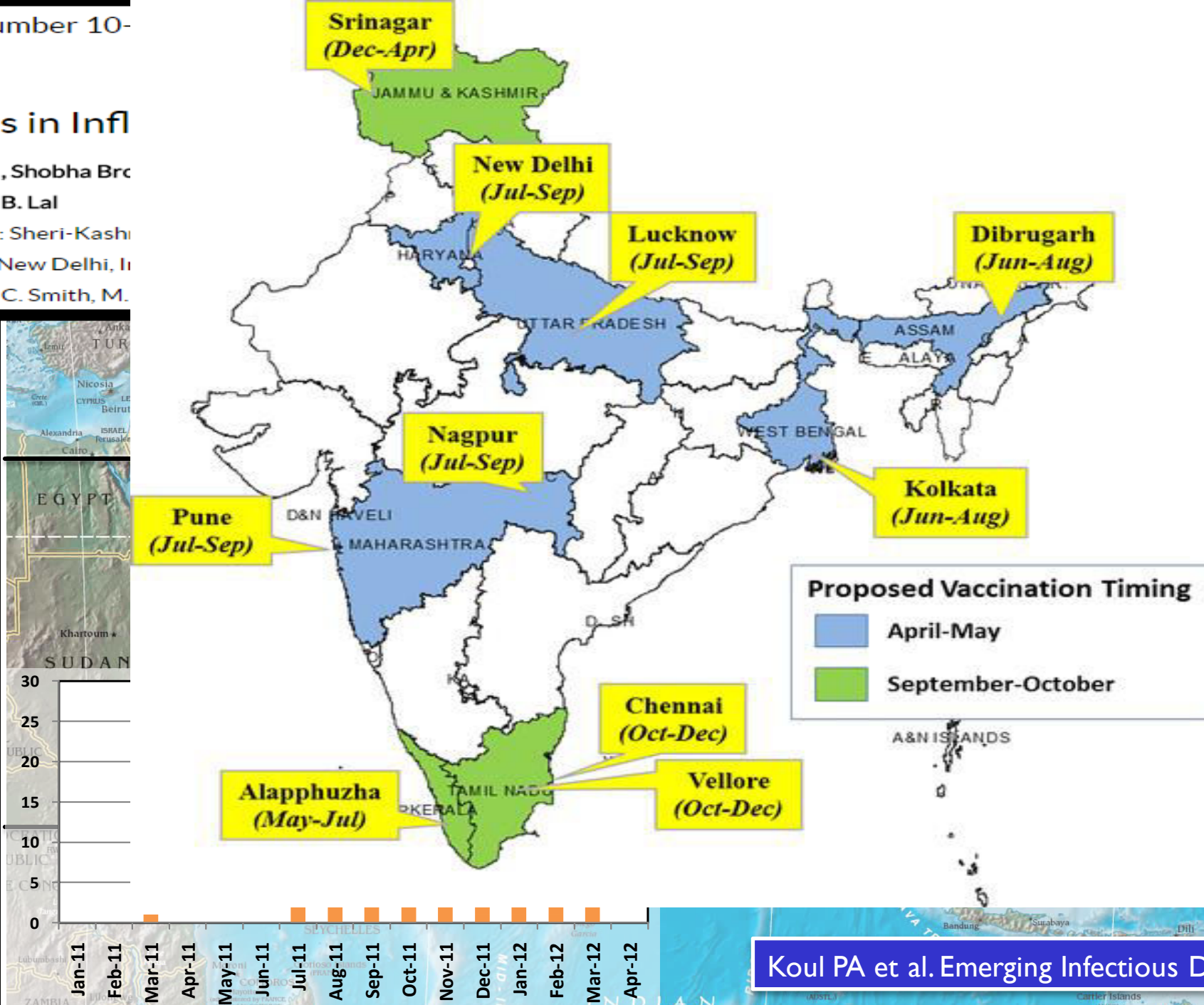
Cases per Day  
Data as of 0:00 GMT+0





Differences in Infl

Parvaiz A. Koul<sup>1</sup>✉, Shobha Br  
Chadha, and Renu B. Lal  
Author affiliations: Sheri-Kash  
Medical Sciences, New Delhi, I  
(S. Saha, J. Barnes, C. Smith, M.



# Influenza Vaccination

## Seasonal Influenza Vaccination can:

- Reduce the likelihood of developing influenza illness requiring a medical visit by about 60%
- Reduce the severity of disease in those who do develop influenza
- Reduce the likelihood of transmitting the infection to others

## Influenza Vaccination also reduces risk of:

- Influenza-related pneumonia by about 60%
- Influenza-related hospitalization by 50% to as much as 77%
- Influenza-related death by 75%-80%

The estimated number of flu **illnesses prevented** by flu vaccination during the 2015-2016 season:

**5 million**

as many people use Denver International Airport in one month

The estimated number of flu **medical visits prevented** by vaccination during the 2015-2016 season:

**2.5 million**

equal to the population of Portland, Oregon

The estimated number of flu **hospitalizations prevented** by vaccination during the 2015-2016 season:

**71,000**

enough to fill every registered hospital bed in the state of Texas



# Vaccination uptake

Data from the Centers for Disease Control and Prevention. <sup>3</sup>

Vaccine	Age (y)			
	>18	19-49	50-64	>64
Influenza	<div>Influenza Immunization not included and only recommended for Healthcare workers and pregnant females and high risk cases (not supported by the program)</div>			70.4%
Pneumococcal				66.9% <sup>b</sup>
Tdap				20.4%
Hepatitis A				5.4%
Hepatitis B				15.9%
ZVL				37.4%
HPV, 1 dose	19-26 y: female, 48.5%; male, 13.5%			



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# Lung India

Official Publication of Indian Chest Society



PubMed

[www.lungindia.com](http://www.lungindia.com)

Wolters Kluwer

Vol 37 | Supplement 1 | August 2020

on 1st of Every Month 1st July, 2016

## Editorial

Clinical practice guidelines for  
influenza and pneumococcal vaccination:  
The Indian perspective

Parvaiz A Koul

S1

## Guidelines

Clinical practice guidelines 2019:  
Indian consensus-based  
recommendations on influenza  
vaccination in adults

Raja Dhar, Alok Gopal Ghoshal, Randeep Guleria,  
Shubham Sharma, Tarang Kulkarni, Rajesh Swarnakar,  
JK Samaria, Sudhir Chaudhary, SN Gaur,  
DJ Christopher, Virendra Singh, Georgi Abraham,  
Anirban Sarkar, Ansuman Mukhopadhyay,  
Jayant Panda, Subramanian Swaminathan,  
Amita Nene, Shyam Krishnan,  
Praveen Kumar Shahi, Nikhil Sarangdhar,  
Narayan Mishra, Susmita Roy Chowdhury,  
Indranil Halder, SK Katiyar, VK Jain,  
Rakesh Chawla, Parvaiz A Koul

S4

Clinical practice guidelines 2019:  
Indian consensus-based  
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Georgi Abraham, Anirban Sarkar, Ansuman  
Mukhopadhyay, Jayant Panda, Subramanian  
Swaminathan, Amita Nene, Shyam Krishnan,  
Praveen Kumar Shahi, Nikhil Sarangdhar,  
Narayan Mishra, Susmita Roy Chowdhury,  
Indranil Halder, SK Katiyar, VK Jain,  
Rakesh Chawla, Parvaiz A Koul

S19

Indian Chest Society/NCCP (2020)  
API (2016)

Indian Academy of Paediatrics 2013

Geriatric Society of India 2015

FOGSI (Obstetricians & Gynecologists  
of India): April 2015

Recent recommendation for health care  
workers by the MOHFW (2015)

ISSN : 0970-2113

Medknow

## Gaps in using bronchodilators, inhaled corticosteroids and influenza vaccine among 23 high- and low-income sites

L. Gnatiuc,\* A. S. Buist,<sup>†</sup> B. Kato,\* C. Janson,<sup>‡</sup> N. Ait-Khaled,<sup>§</sup> R. Nielsen,<sup>||</sup> P. A. Koul,\*\*  
E. Nizankowska-Mogilnicka,<sup>††</sup> D. Obaseki,<sup>‡‡</sup> L. F. Idolor,<sup>§§</sup> I. Harrabi,<sup>|||</sup> P. G. J. Burney,\* for the BOLD  
Collaboration



## Short Communication:

### Influenza and Pneumococcal vaccination in patients with diabetes

\* P.A. Koul<sup>1</sup>, M.A. Bhat<sup>1</sup>, S. Ali<sup>1</sup>, S. Rahim<sup>1</sup>, S.J. Ahmad<sup>1</sup>, S. Ahmad<sup>1</sup>, R. Yusuf<sup>1</sup>, S.R. Masoodi<sup>2</sup>



## Vaccination rates in Indian adults with comorbidities

COPD	0-0.4%
Diabetes (N=1100)	9%
Pregnant females (N=1000)	0%
CHF	0-5%

# Who Most Influences Adults' Decisions to Get Immunized?

	All Adults
Personal physician	69%
Family member	19%
Celebrity physician, public figure, other	7%
None of the above	4%
No answer	1%

Almost 90% !

NFID. 2009 National Adult Immunization Consumer Survey: Fact Sheet.

Available at: [http://www.adultvaccination.com/doc/Survey\\_Fact\\_Sheet.pdf](http://www.adultvaccination.com/doc/Survey_Fact_Sheet.pdf). Accessed June 15, 2011.

AMA. American Medical News. Physicians asked to persuade adults to get immunized.

Available at: <http://www.ama-assn.org/amednews/2009/08/03/prsc0803.htm>. Accessed June 13, 2011.

## Knowledge influenza Srinagar

Nargis K. Bali,<sup>a</sup>  
Parvaiz A. Koul

<sup>a</sup>Sheri-Kashmir Institute  
GA, USA.

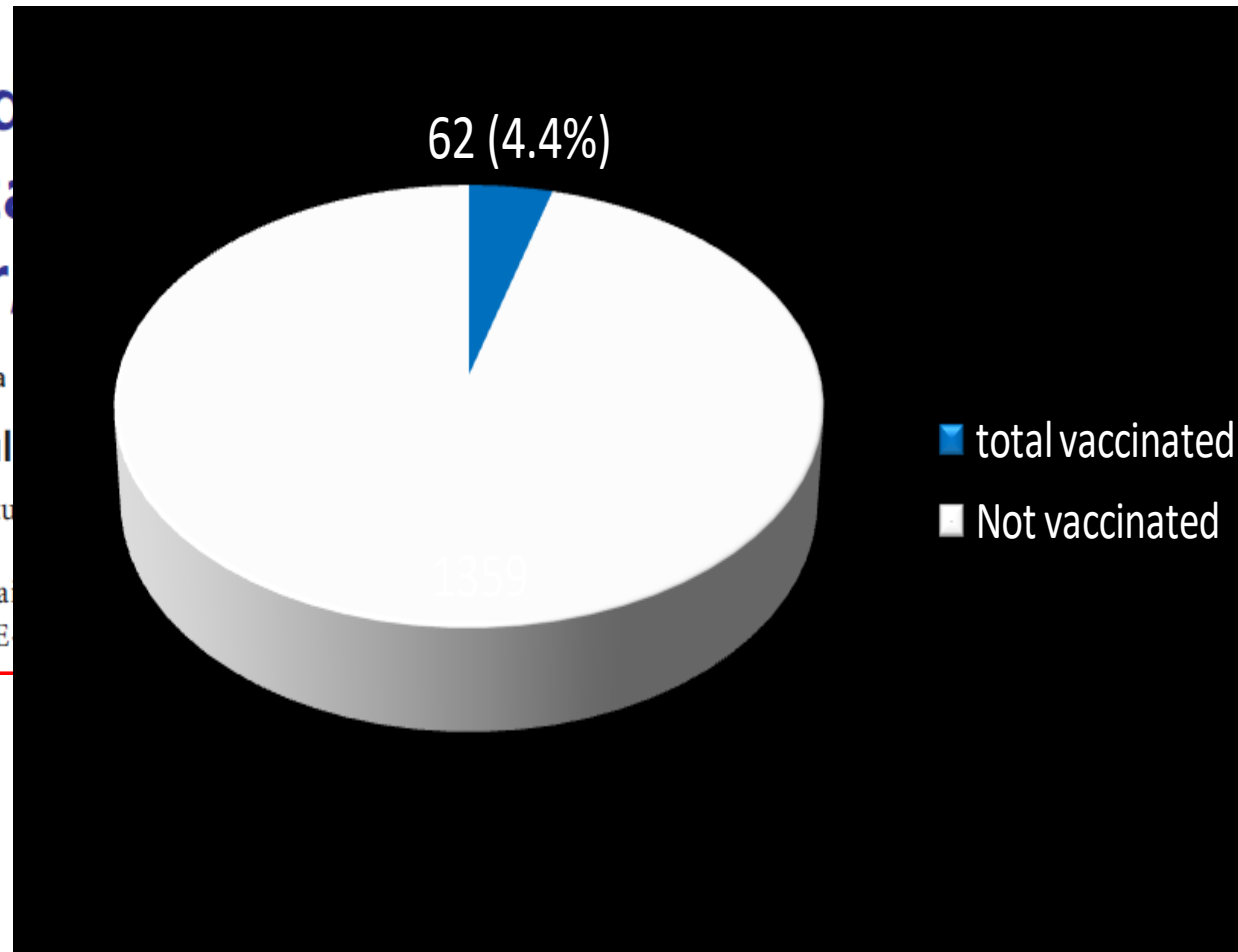
Correspondence: Parvaiz A. Koul,  
190011, J&K, India. E

## seasonal ers in

,<sup>b</sup> Renu B. Lal<sup>b</sup>,

and Prevention, Atlanta,

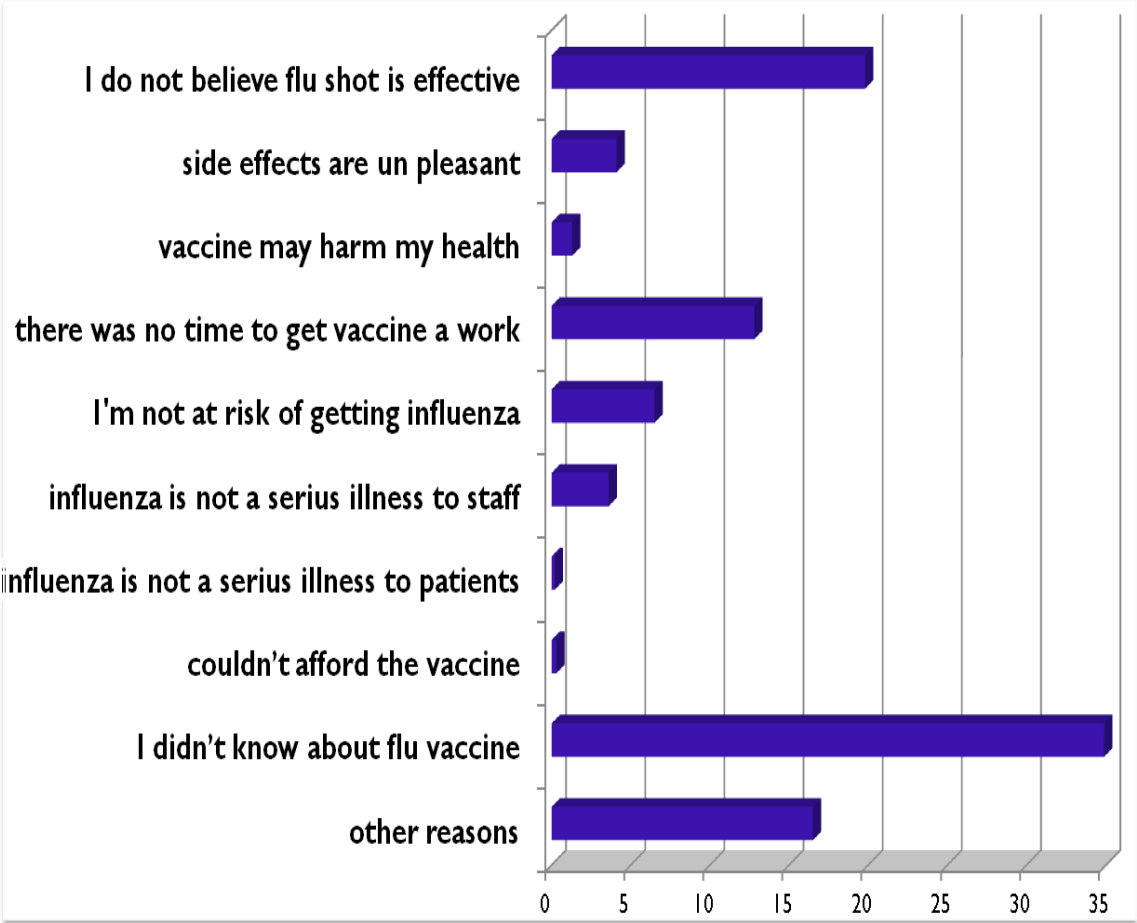
ences, Soura, Srinagar



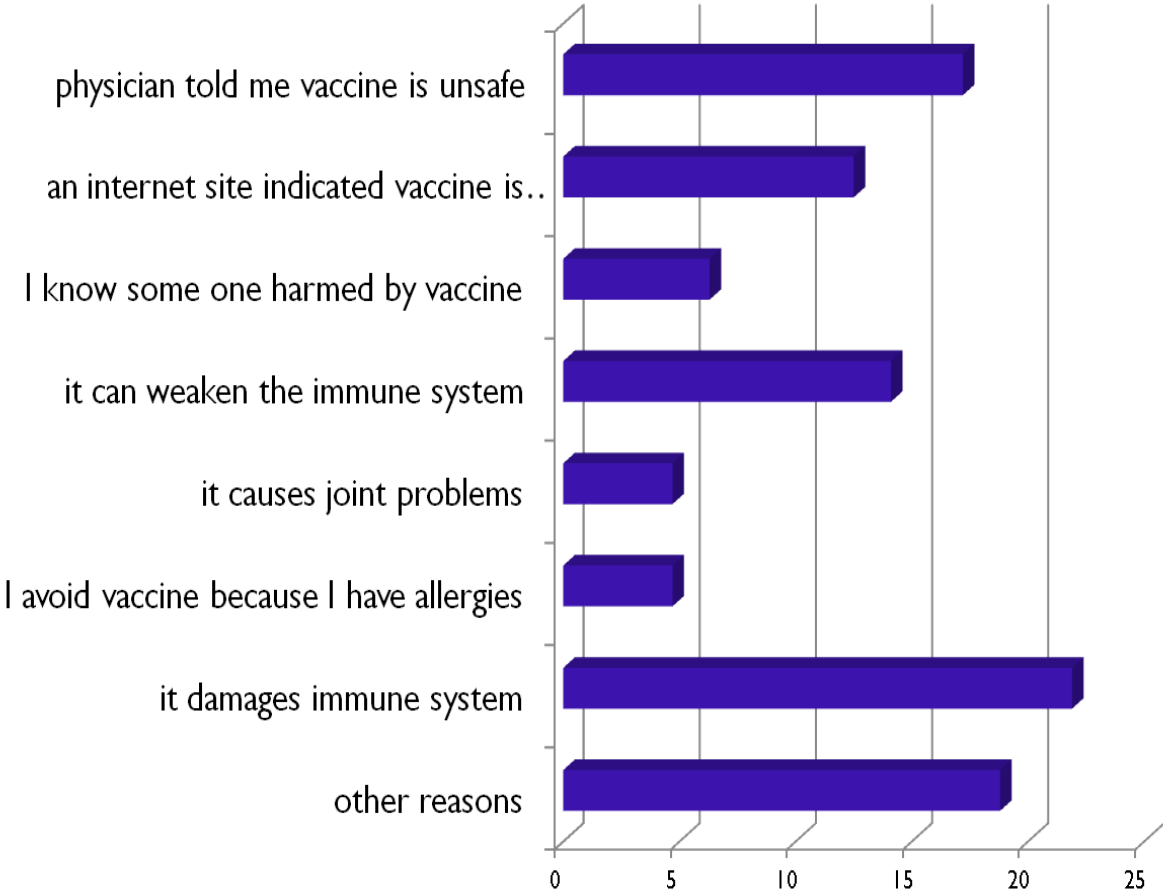
Bali NK et al. (2012) Knowledge, attitude, and practices about the seasonal influenza vaccination among healthcare workers in Srinagar, India. Influenza and Other Respiratory Viruses DOI: 10.1111/j.1750-2659.2012.00416.x.



If you received the vaccine zero times in the past 5 years, please indicate the most important reason for not participating (n=1359)



Reasons members considered the influenza vaccine unsafe (n = 83).



‘Others : “Not at risk of influenza complications and not in contact with patients,” “allergy to egg yolk,” “don’t want to get sick,” “have overactive immune system,” “a lot of people get the flu even though they got the shot.” “ my gut feeling that it is not effective”

# Influenza vaccination in India: Challenges for universal adoption

Parvaiz A. Koul\*, Nargis K. Bali

*Departments of Internal & Pulmonary Medicine and Clinical Microbiology, Sher-i-Kashmir Institute of Medical Sciences, Srinagar, J&K, India*

**Hesitancy**

**Anti vaxxers**

- ▶ Inadequate and patchy surveillance
- ▶ Disconnect between perceptions and practice
- ▶ Misperceptions and misconceptions are abundant
- ▶ Physician societies and bodies do not universally recommend vaccination
- ▶ Universal vaccination programs do not recommend vaccination.
- ▶ Cost may be an impediment (PDS type subsidization can be explored)
- ▶ Influenza vaccination has to timed differently for different regions of the country.

Letter to the Editor

## The biggest barrier to influenza vaccination in pregnant females in India: Poor sensitization of the care providers

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*Influenza Laboratory, Department of Internal & Pulmonary Medicine, Sher-I-Kashmir Institute of Medical Sciences, Soura, Srinagar, J&K, India*

Hyder Mir

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### ARTICLE INFO

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*Article history:*  
Available online xxx

The final report of the World Health Organization working group on Influenza Epidemiology and Immunization during Pregnancy [1], is timely. As is evident from the report, data regarding uptake of vaccination and vaccine effectiveness from low-and middle-income countries are scant. Virtually no data exist from India, the second most populous country (population > 1.2 billion) with a history of devastating past and recent outbreaks of influenza [2]. Documentation of lab confirmed influenza (LCI) has increased recently resultant on capacity enhancement following the setting up of a network of laboratories under the aegis of a cooperative agreement between the CDC, USA and the Indian Council of Medical Research (ICMR), New Delhi followed by another network of Viral Diagnostic laboratories across the

the 91 obstetricians, caring for the 1000 pregnant women, had themselves received influenza vaccine despite the knowledge that health-care workers constituted a high risk group for influenza [4]. These results were consistent with an earlier study of about 1421 health-care workers in the same geographical area, where the uptake of influenza vaccine was only 4.4% despite the participants reporting adequate knowledge about the severe and potentially lethal nature of influenza infection and having adequate knowledge about the availability of a vaccine against influenza [5]. Misperceptions and misconceptions regarding the safety and efficacy of influenza vaccination and a disconnect between perceptions and practice was demonstrable in the study [5]. The Ministry of Health and Family Welfare of the Govern-

# Celebrity campaigns help 'when in doubt'





# Strategies for improving adult influenza immunization

- Local surveillance data to target influenza season
- Adult immunization to be taken up formally as a part of UIP
- **Sensitization of health care providers**
- Better awareness and aggressive advocacy (campaigns, programs, reminders)
- Involvement of NGOs and Government
- Cost reimbursement and involvement of insurance agencies
- Signed declinations for refusal to influenza vaccination.

# Why a flu vaccine is more important than ever in 2020



## ✦ It could save your life

Over 34,000 people died of

## ✦ Protect your community

The flu spreads easily. By getting vaccinated, you are helping to protect the most vulnerable members of our community from catching a life-threatening illness.

You can get flu and COVID-19 at the same time

and if you do, your chances of developing severe medical problems go up.

## ✦ It's free

Most health insurance plans—including all UC-sponsored plans—cover flu vaccinations at no cost.

Thank  
You