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PRASANNA SCHOOL OF PUBLIC HEALTH MANIPAL

(A constituent unit of MAHE, Manipal)

Helmut Brand

ASPHER Deans' and Directors' Retreat – London 2018
ASPHER General Assembly

20 June 2018



ACADEMIC STREAMS

Allied Health Sciences	Architecture
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Engineering	European Studies
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Humanities	Information Science
Library Science	Life Sciences
Management	Media & Communication
Medicine	Natural Sciences
Nursing	Pharmacy
Public Health	Sciences
Statistics	Virus Research

20 INSTITUTIONS
381 COURSES
33536 STUDENTS
47 NATIONALITIES
67 COUNTRIES
134123 ALUMNI
2600 FACULTIES
 15 UNIVERSITY TEACHING DEPARTMENTS
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 STUDENT EXCHANGE PROGRAMME
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Ranked 101 amongst BRICS nations
(QS University Ranking - BRICS 2016)

Ranked 200 amongst Asian universities &
ranked No. 17 in India
(QS University Ranking - Asia 2016)

Ranked 801 + Times Higher Education
World Ranking 2016

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(EducationWorld)

Ranked No. 1 among top private universities
in India
(Careers360)

Best University promoting Research
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No. 1 among private and deemed
universities in India
(The WEEK)

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Nipah virus outbreak in India

A Nipah virus outbreak has been declared in India. Experts say they have contained the outbreak using lessons learned from previous outbreaks. Patralekha Chatterjee reports from Delhi.



"Sajeeshetta, am almost on the way. I don't think I can meet you again. Sorry. Please look after our little ones... With lots of love and kisses," Lini Puthossey, nurse and mother of two, said in a poignant letter written to her husband shortly before she died from Nipah virus infection. She was working in a subdistrict hospital in Kerala's Kozhikode district, tending to patients affected by the Nipah virus. The virus has already claimed 24 lives in two districts in Kerala. Many victims are from one family in Kozhikode.

This is Kerala's first outbreak of Nipah virus. The virus claimed its first known victims in late 1990s in Malaysia and Singapore. Since then, it has surfaced in West Bengal in India and in Bangladesh. Currently, there is no vaccine for Nipah virus. The primary treatment for humans is supportive care, says WHO. Fruit bats are the natural host of the Nipah virus, but in Malaysia, pigs were the intermediate hosts. In more recent outbreaks, the risk of human-to-human transmission through contact with infected body fluids has been raised.

Kerala has among the best health indicators in India. "But having a good health system is no guarantee against there being no infections, as infections are mediated by many factors which are beyond the control of health department", says Rajeev Sadanandan, Kerala's top health bureaucrat.

"We picked up the infection at the earliest. All the contacts were traced and kept under surveillance, those with symptoms moved to isolation ward and managed there with the highest infection prevention and control measures. The outbreak has been contained in the least possible time with the least amount of deaths", Sadanandan told *The Lancet*.

"The human-to-human transmission through droplet infection led to

the spread", virologist Arunkumar Govindakarnavar, head of the Manipal Centre for Virus Research in neighbouring state of Karnataka, told *The Lancet*. Govindakarnavar was among those who played a crucial role in identifying the Nipah virus from body fluid samples of patients in the latest outbreak in Kerala. "This was a subdistrict-level hospital. Quite overstretched. Now infection control measures are being initiated, and systems being put in place to ensure that all health workers, attendants, and care-givers use appropriate personal protective equipment while caring for Nipah virus-infected cases."

"WHO has recently convened a Task Force to draw up a roadmap for the development of diagnostics, therapeutics, and vaccines for Nipah."

"As part of our initiative on antimicrobial resistance, we had revamped our Infection Prevention and Control (IPC) strategies. But it has been shown to be inadequate. Once the outbreak is over, we will revisit our IPC strategies through our antimicrobial resistance working group," Sadanandan added.

In Malaysia, where the Nipah virus was first reported, the epidemiological situation was very different from that in Kerala. The virus, which first affected pig farmers and farm workers, was originally incorrectly assumed to be Japanese encephalitis. The outbreak control measures, put into place to control the spread of Japanese encephalitis virus, were ineffective. "It was months later that the Ministry of Health finally accepted that it was a not [Japanese encephalitis virus] but a newly described virus, subsequently named Nipah virus, that this virus was

spreading among the pig herds, and was transmitted to humans from the pigs", Jane Cardosa, a virologist now retired from Universiti Malaysia Sarawak, told *The Lancet*. Cardosa has spent most of her life working on flaviviruses and enteroviruses. "The outbreak was finally controlled by massive culling of the pigs. Hence, in my view, the key lesson from the Malaysian experience is that competent and honest epidemiological investigations are extremely important."

"The lessons learned in Bangladesh are the importance of surveillance to quickly identify outbreaks, the centrality of research as a part of outbreak preparedness and response, and use of the one health approach to study emerging zoonotic diseases like Nipah", Emily Gurley, infectious disease epidemiologist and Associate Scientist at the Johns Hopkins Bloomberg School of Public Health who has been studying Nipah virus in Bangladesh since 2004, told *The Lancet*. "In order to tackle these public health problems, we need experts from many disciplines—such as physicians, epidemiologists, microbiologists, veterinarians, and social scientists. Bangladesh has been a leader in the one health approach to Nipah research and response", she added.

WHO has recently convened a Task Force to draw up a roadmap for the development of diagnostics, therapeutics, and vaccines for Nipah. The Center for Epidemic Preparedness and Innovation has announced that it will fund the development of Nipah vaccines for humans. However, until more tools become available, surveillance and outbreak response remain the most effective public health tools to combat and contain this disease, Gurley added.

Investigators are ongoing to find the source of Kerala's Nipah outbreak.

Patralekha Chatterjee

www.thelancet.com Vol 393 June 2, 2018

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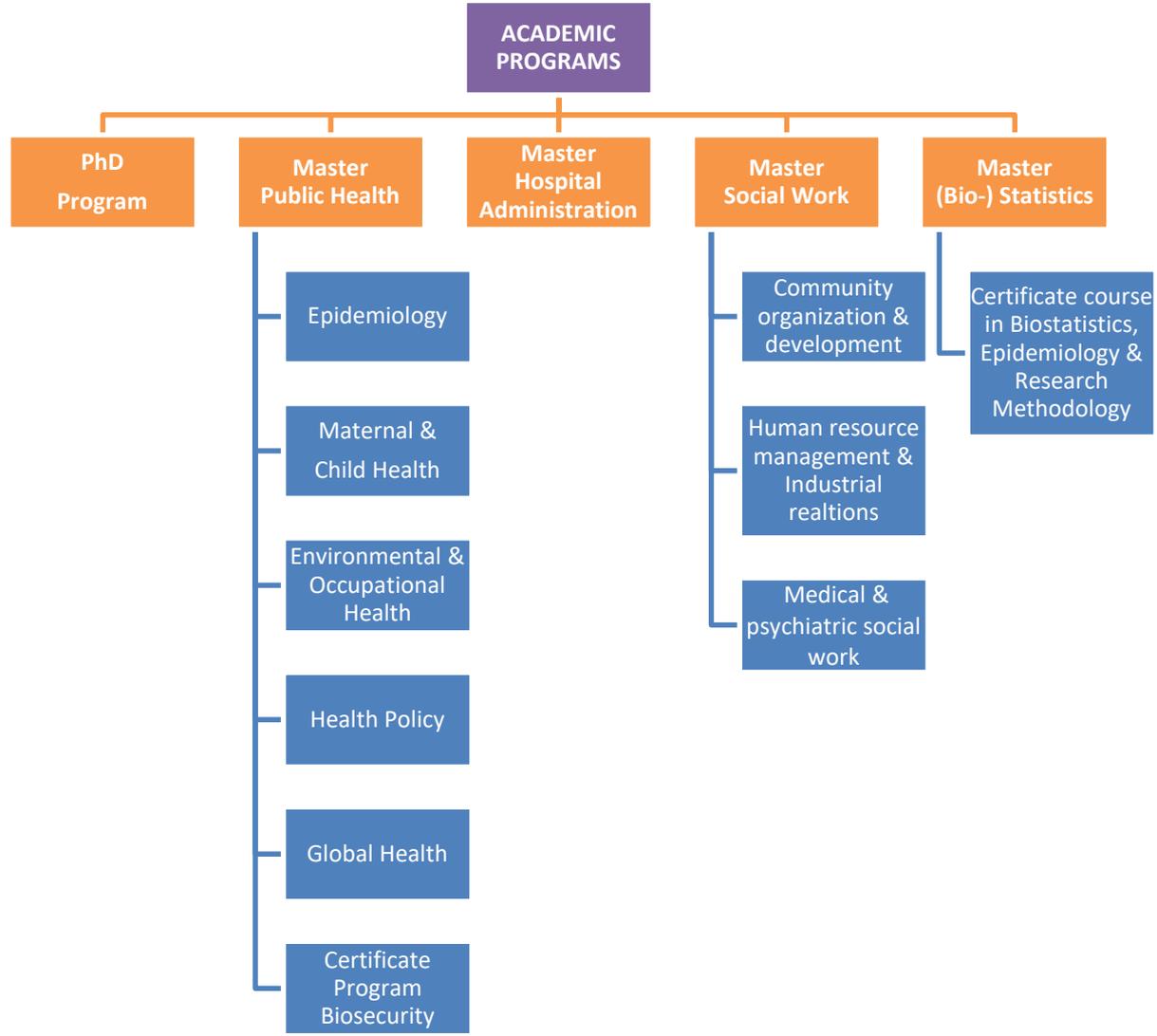




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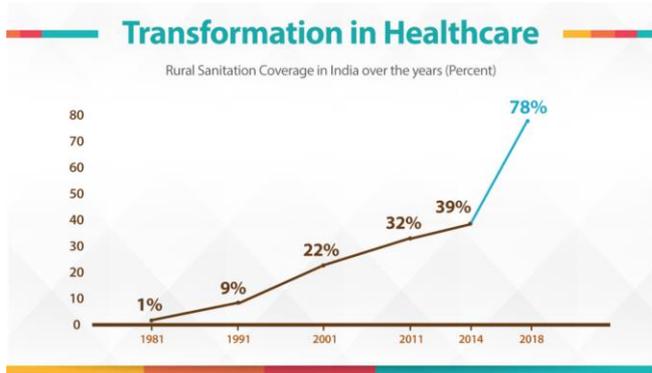




RESEARCH CENTERS

- Health Literacy Unit
- Clinical Epidemiology Unit
- Center for Community Oncology
- Public Health Evidence South Asia (PHESA)
- Center for Vaccines Studies
- Manipal McGill Center for Infectious Diseases
- Transdisciplinary Center for Qualitative Research
- Manipal Robert-Bosch Center for Health, Applied Research & Technology

What makes Prasanna School of Public Health special: “Looking ahead to India in 20 years” (Digitalisation, Automation, Demographic Change)



Smartphone Banking

Personal Identifier = Aadhaar

Indirect Tax = GST

Demonetarisaton

Modicare: 100 Mio Families = 500 Mio people

500.000 Rupees/Years = 7.500 Euro, Budget 1,3 Billion Euro

Thanks for Listening !

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