



अखिल भारतीय आयुर्विज्ञान संस्थान, नागपुर  
ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NAGPUR

Address: Plot No. 2, Sector-20, MIHAN, Nagpur- 441108

File No. AIIMS-NAG/PROC/Cent-Store/24-25/09/NIQ/02

Dt. 25/05/2024

**NOTICE INVITING QUOTATIONS**

The Executive Director, All India Institute of Medical Sciences, Nagpur invites quotations from the reputed supplier for Customized Charts for the departmental museum of Community Medicine of AIIMS Nagpur details are given below:

Sr. No	Item Description	QTY.	Unit Cost	Total Cost	GST %	TotalCost with GST
1	Customized Charts. Size:- 20"X 26", Laminated & Mounted Framed on Board. (Name of the charts and sample are attached)	25				


**Note:**

- A compiled statement of technical specification need to be submitted along with quotation.

**TERMS OF CONDITIONS:**

- 1) All quotations to be submitted in the name of **Executive Director, AIIMS Nagpur** only. Quotations not addressed to Executive Director, AIIMS, Nagpur will not be opened and rejected summarily.
- 2) Rates of articles should be quoted per unit item without including GST.
- 3) Taxes leviable should be quoted separately.
- 4) Delivery Period: - Within 30 days from the date of supply order.
- 5) Delivery should be FOR O/o Central Store, AIIMS, Nagpur.
- 6) **Liquidated Damages charges:-** In the event of the Seller's failure supply. Liquidated Damages charges will be deducted to the sum of 0.5% of the contract price of the delayed/undelivered, stores/services mentioned above for every week of delay or part their of a week, subject to the maximum value of the Liquidated Damages being not higher that 10% of the value of delayed stores.
- 7) Payment will be released on inspection of supplied material found satisfactory by the concerned department as regard to quality, quantity etc. Broken articles will have to be replaced before payment.
- 8) Bank details such as Account Number, IFSC Code etc. should be furnished so as to facilitate payment on line, if any.
- 9) Interested parties should submit their quotations in **sealed envelope in store office, superscribing "QUOTATION FOR SUPPLY OF CUSTOMIZED CHARTS FOR THE DEPARTMENTAL MUSEUM OF COMMUNITY MEDICINE OF AIIMS NAGPUR WITH NUMBER OF NIQ"** on or before **08/06/2024 before 12.00hrs** which will be opened on **10./06./2024 at 11.00 hrs.**
- 10) Rights to accept/reject any quotation rests with the AIIMS Nagpur.



  
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AIIMS, Nagpur  
Rohan L. Bagde  
Administrative Officer  
AIIMS, Nagpur

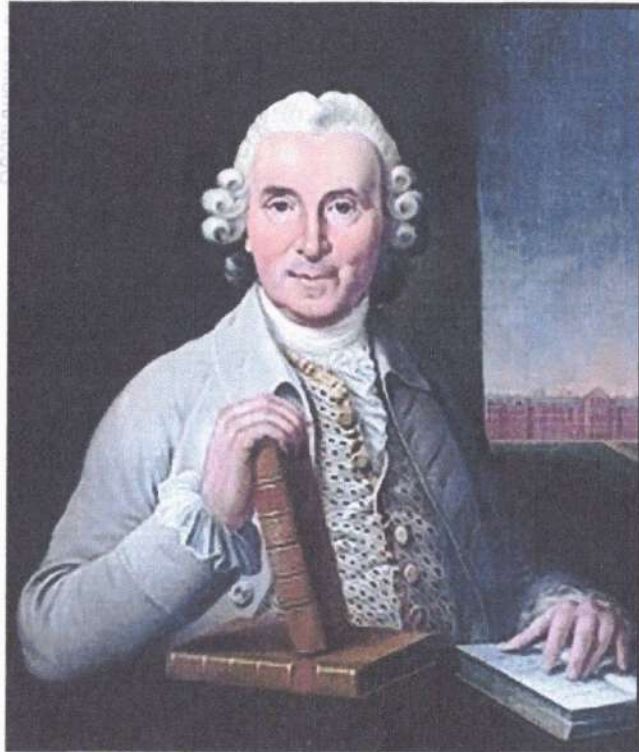
Sr.no	Charts Name
1	James Lind (1716-1794)
2	Edward Jenner (1749-1823)
3	Sir Edwin Chadwick (1800-1890)
4	John Snow (1813-1858)
5	Ignaz Semmelweis (1818-1865)
6	Louis Pasteur (1822-1895)
7	Heinrich Hermann Robert Koch (1843-1910)
8	Dilip Mahalanabis (1934-2022)
9	Sunithi Solomon (1939-2015)
10	Black Death (1346-1353)
11	Quarantine And Isolation
12	Spanish Influenza (1918-1920)
13	1925 Serum run to Nome
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22	Tracking of blood pressure
23	NHM Infrastructure
24	Milestones in Public Health Evolution

25. Clinical Breast Examination



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# James Lind (1716-1794)



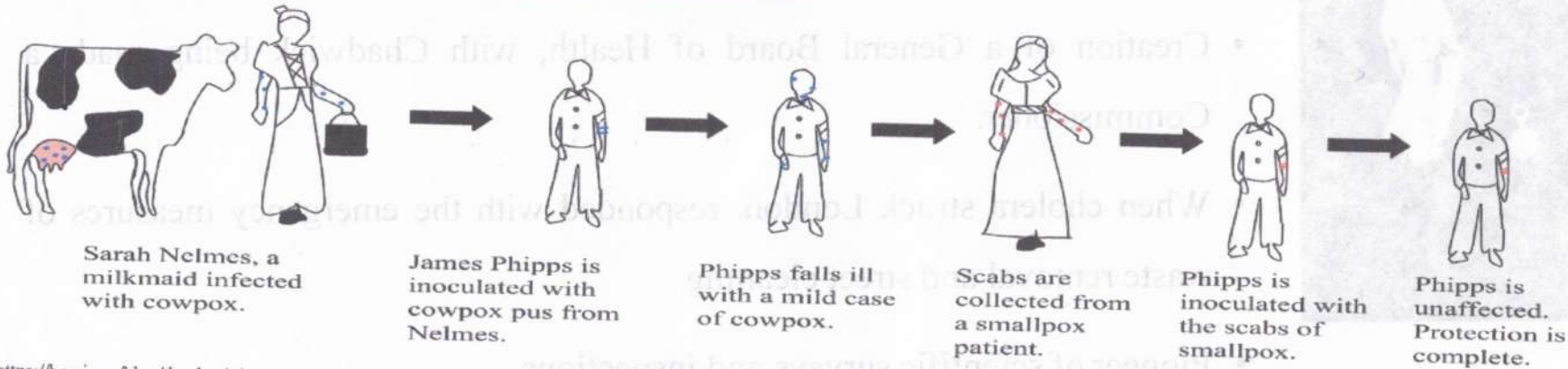
- Scottish Physician
- Pioneer of Naval Hygiene
- First Clinical Trial
- Citrus Fruits in curing Scurvy
- Distillation of seawater into potable water

# Edward Jenner (1749-1823)

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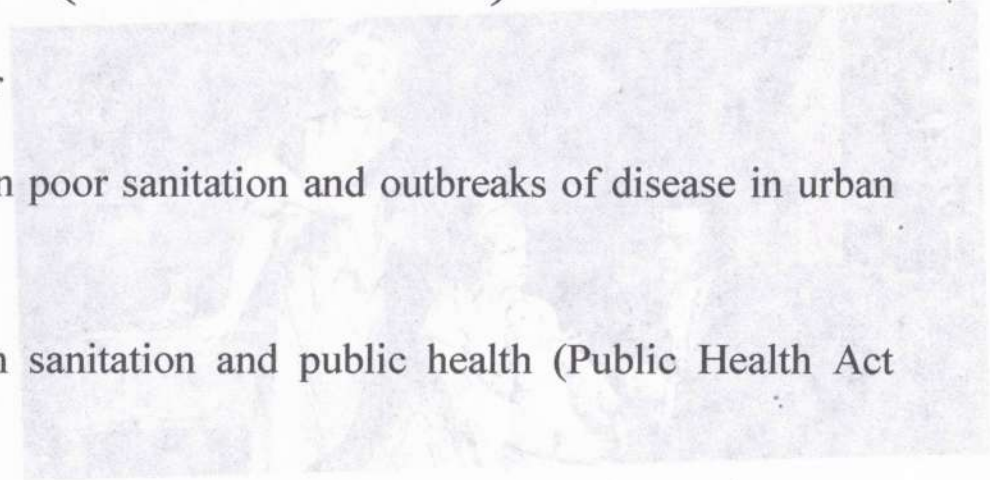


- English Physician
- Father of Immunology
- Pioneer of Smallpox Vaccine
- 14<sup>th</sup> May, 1796- 8 year old James Phipps was the first to receive vaccine.



Source-<https://bcmj.org/blog/thanksgiving-toast-dr-edward-jenner-vaccine-pioneer>

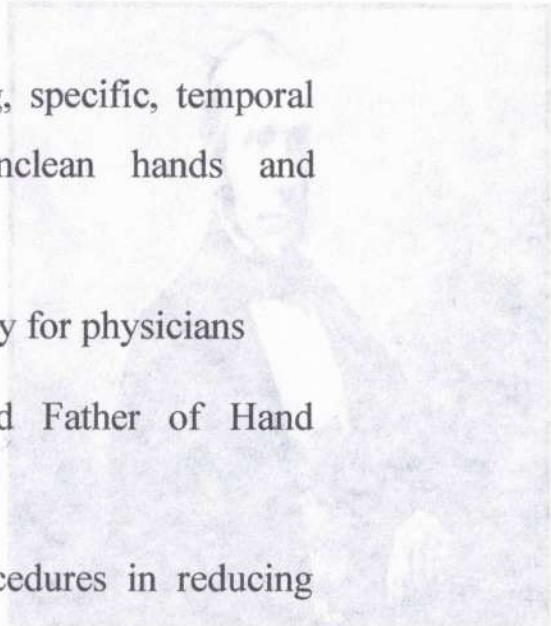
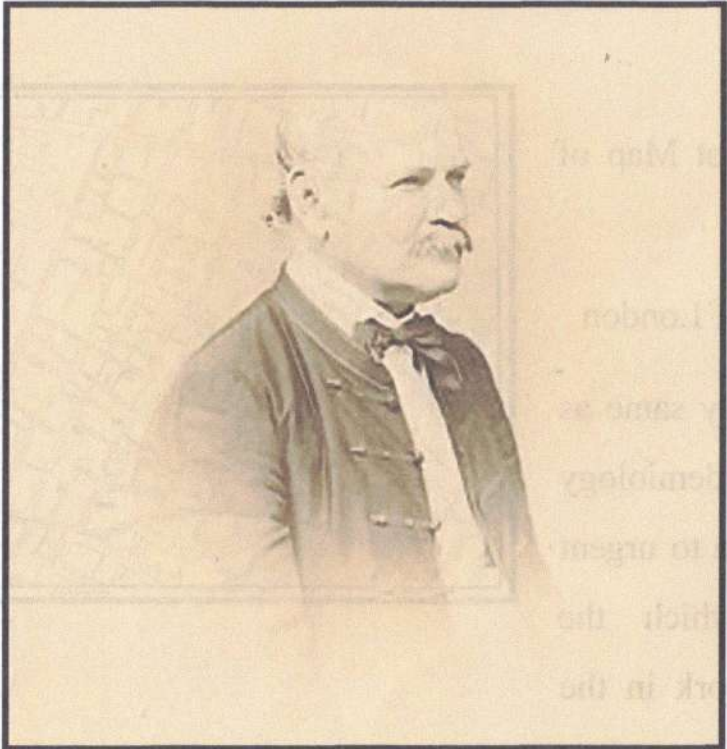
# Sir Edwin Chadwick (1800-1890)



- English Social Reformer
- Established link between poor sanitation and outbreaks of disease in urban environments
- Major reforms in urban sanitation and public health (Public Health Act 1848).
- Creation of a General Board of Health, with Chadwick being made a Commissioner.
- When cholera struck London, responded with the emergency measures of waste removal and street cleaning
- Pioneer of scientific surveys and inspections

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# Ignaz Semmelweis (1818-1865)



- Hungarian Physician
- Semmelweis established a strong, specific, temporal causal association between unclean hands and puerperal fever.
- He enforced a hand-washing policy for physicians
- Father of infection control and Father of Hand hygiene.
- Early pioneer of Antiseptic Procedures in reducing maternal mortality
- Handwashing techniques and chlorinated disinfectants

Source- Ignaz Semmelweis-Father of Hand Hygiene. Indian J Surg. 2020 Jun

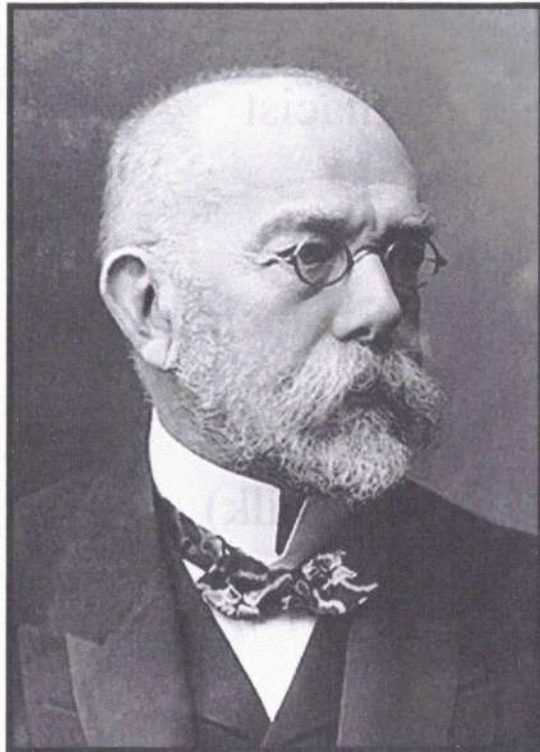
# Louis Pasteur (1822-1895)



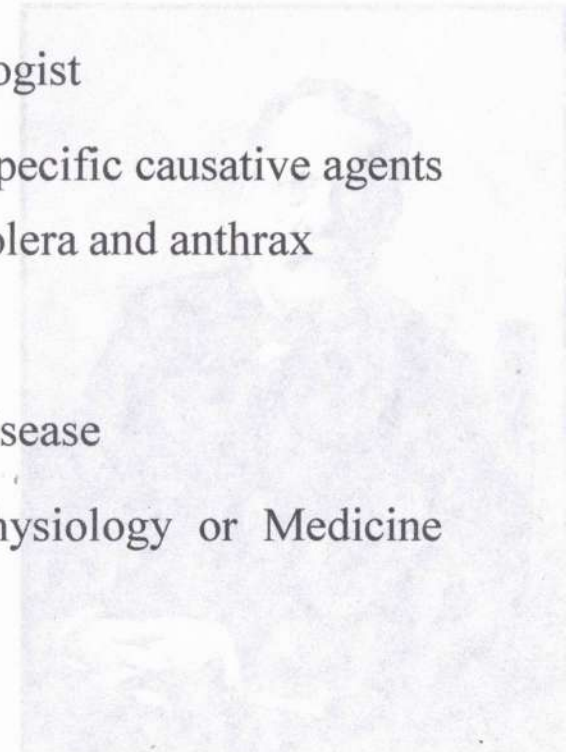
- French chemist, pharmacist and microbiologist.
- Discovered the principles of principles of vaccination, microbial fermentation, and Pasteurization (preservation of milk)
- Father of Bacteriology
- Vaccines of Anthrax and Rabies

Source: Adam, P. (1951). "Louis Pasteur: Father of bacteriology". Canadian Journal of Medical Technology. 13 (3): 126-128. PMID 14870064.

# Heinrich Hermann Robert Koch (1843-1910)



- German Microbiologist
- Discoverer of the specific causative agents of tuberculosis, cholera and anthrax
- Koch's Postulates
- Germ Theory of Disease
- Nobel Prize. in Physiology or Medicine 1905



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# Dilip Mahalanabis (1934-2022)



- Indian pediatrician
- Pioneer in using Oral Rehydration Therapy to treat diarrheal disease
- Role in Post-Bangladesh War of Independence (1971)
- Started Campaign which led to WHO policy to treat dehydration.

The mortality rate was 3.6 percent among those given ORT, compared with 30 percent in those given IV fluid therapy.

# Sunithi Solomon (1939-2015)



Key role in alerting India to the threat of the HIV/AIDS epidemic

- Indian Microbiologist
- Discovered the first case of HIV in India
- Established one of India's first voluntary HIV counseling and testing facilities treating more than 20000 patients
- Educated other doctors that HIV was not a fatal disease and could be treated

# Black Death (1346-1353)



Paul Fürst, engraving (coloured), c. 1656, of a plague doctor of Marseilles (introduced as 'Dr Beaky of Rome'). His nose-case is filled with herbal material to ward off the plague.<sup>1</sup>

- Bubonic Plague Pandemic in Europe
- 2<sup>nd</sup> Great Plague Pandemic
- One of the most fatal pandemic in human history about 25 million people are estimated to have died in Europe from the plague between 1347 and 1351

Lawton, Graham (25 May 2022). [Wilson, Emily](#) (ed.). "Plague: Black death bacteria persists and could cause a pandemic". [New Scientist](#). London. ISSN 0262-4079.

# Quarantine And Isolation

- **Quarantine** separates and restricts the movement of people who were exposed to a contagious disease to see if they become sick.
- **Isolation** separates sick people with a contagious disease from people who are not sick.



For people who are not sick, but may have been exposed, quarantine:



For people who are sick, isolation:

# Spanish Influenza (1918-1920)



Soldiers sick with Spanish flu at a hospital ward Camp Funston in Fort Riley, Kansas

- **Great Influenza epidemic** or by deadly global influenza epidemic caused by the H1N1 Influenza A virus
- The microscopic killer circled the entire globe in four months, claiming the lives of more than 21 million people.
- Introduction of ‘Social Distancing’ and ‘wearing Masks’
- Early and sustained imposition of gathering bans, school closures, and other social-distancing measures significantly reduced mortality rates

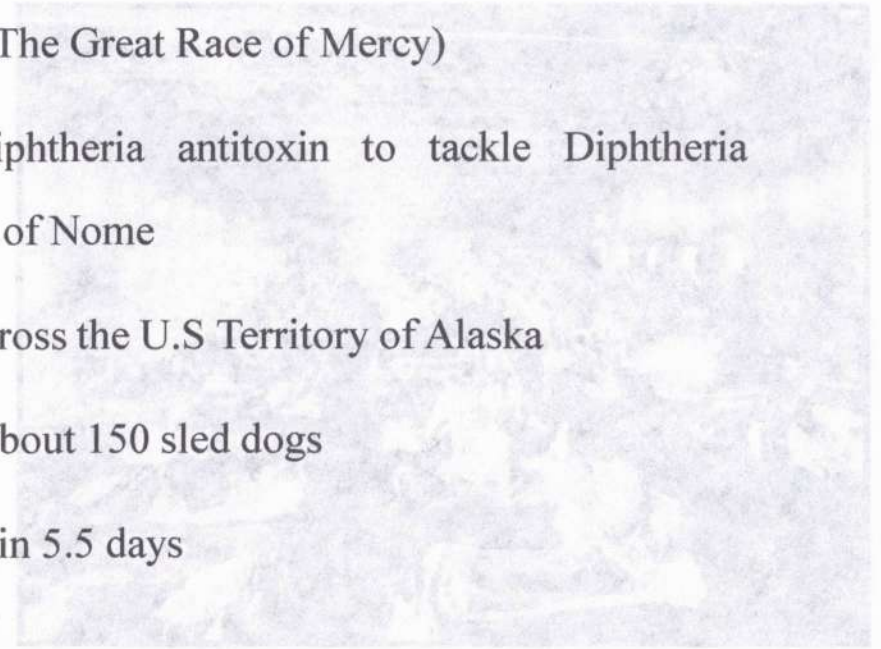
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# 1925 Serum run to Nome



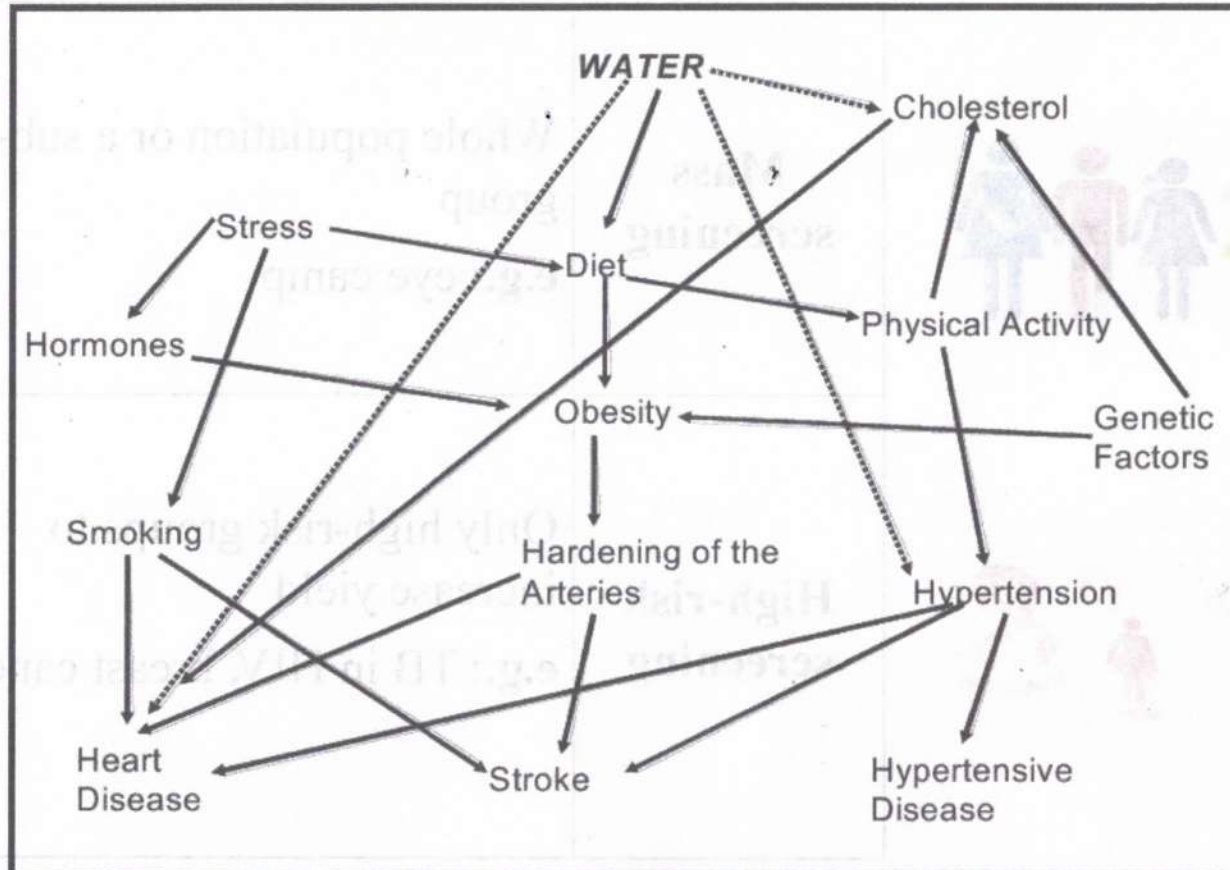
Leonhard Seppala with his dogs after the serum run in 1925. His lead dog, Togo, on the far left.

- The Serum Run (The Great Race of Mercy)
- Transport of Diphtheria antitoxin to tackle Diphtheria epidemic in town of Nome
- Dog-sled relay across the U.S Territory of Alaska
- 20 Mushers and about 150 sled dogs
- Across 1,085 km in 5.5 days



Soldiers sick with Spanish flu at a hospital ward Camp Funston in Fort Riley, Kansas

# Web of Causation



Calderon, R. & Hunter, Paul. (2009). Epidemiological studies and the association of cardiovascular disease risks with water hardness. *Calcium and Magnesium in Drinking-water*. 110.

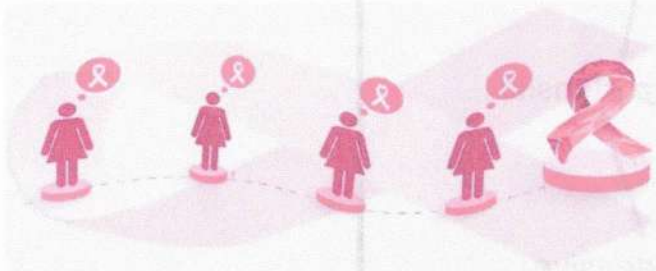
  
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# Types of screening



**Mass screening**

Whole population or a sub-group  
e.g.: eye camp



**High-risk screening**

Only high-risk groups to increase yield  
e.g.: TB in HIV, breast cancer

# Validity and Reliability



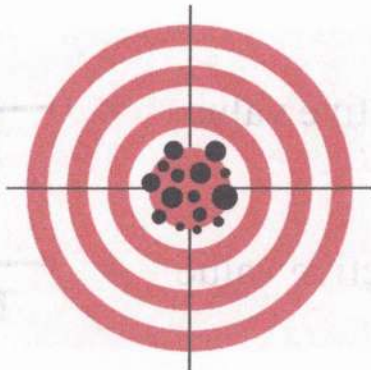
Unreliable & Not Valid



Unreliable, But Valid



Reliable, Not Valid



Both Reliable & Valid

## RELIABILITY

Consistent results when repeated more than once on the same individual under same conditions

## VALIDITY

The extent to which the test accurately measures what it was supposed to measure

Source: IAPSM Textbook – 2<sup>nd</sup> edition – Page - 133

# Measures of validity

## DIAGNOSTIC TEST

### RESULTS

		Diseased	Not diseased
SCREENING TEST RESULTS	Positive	True Positive (TP)	False Positive (FP)
	Negative	False Negative (FN)	True Negative (TN)

$$\text{Sensitivity} = \frac{\text{TP}}{\text{TP} + \text{FN}}$$

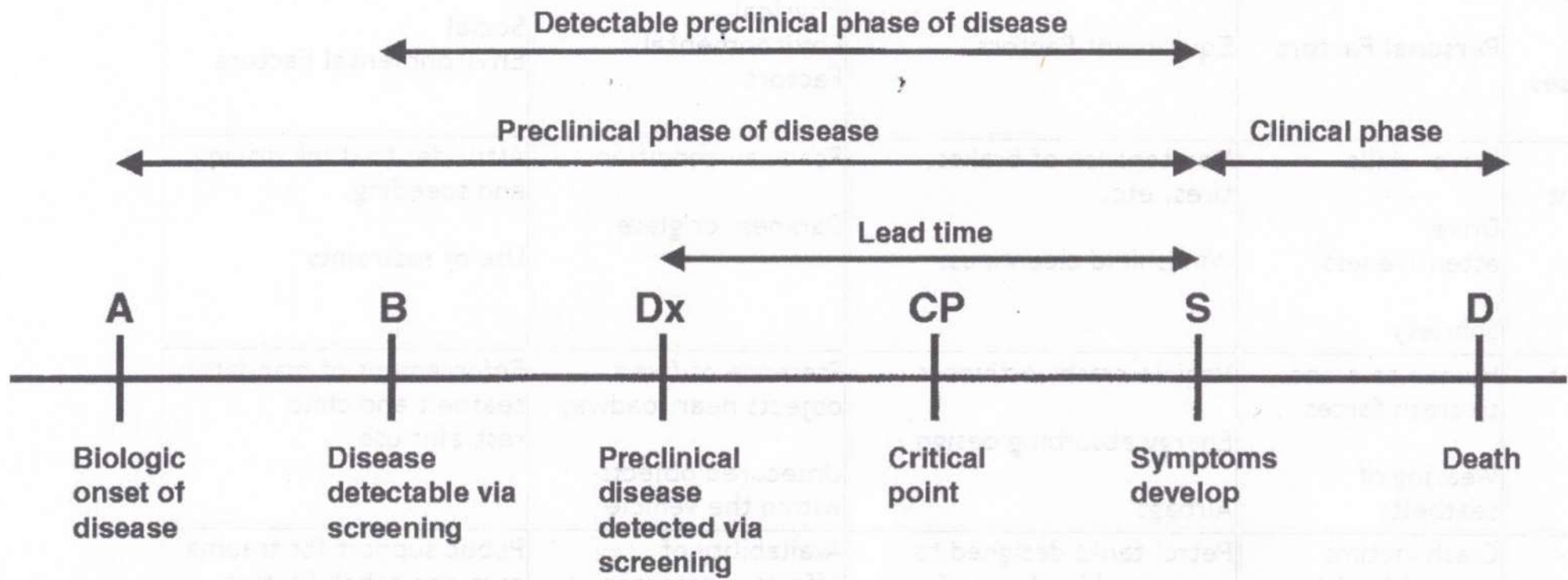
$$\text{Specificity} = \frac{\text{TN}}{\text{TN} + \text{FP}}$$

$$\text{Positive predictive value} = \frac{\text{TP}}{\text{TP} + \text{FP}}$$

$$\text{Negative predictive value} = \frac{\text{TN}}{\text{TN} + \text{FN}}$$

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# Model for Early Disease Detection Programmes



  
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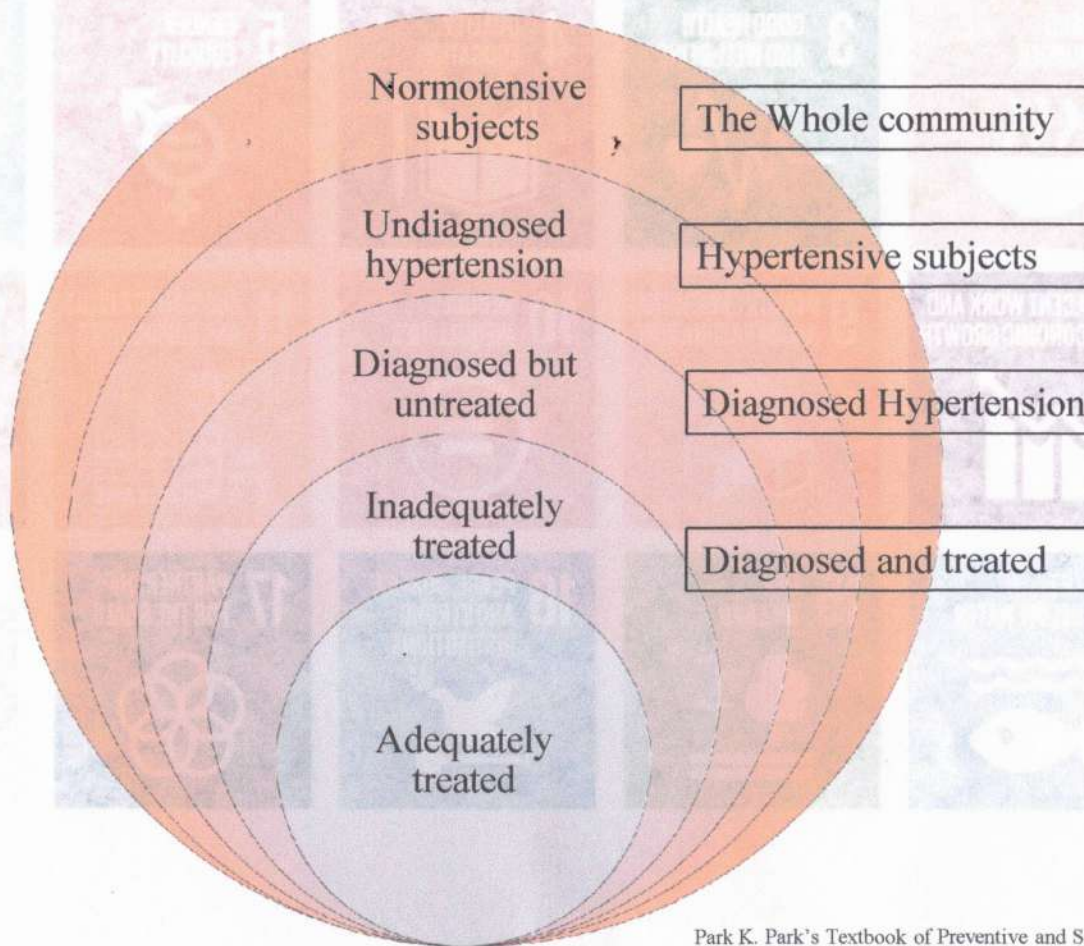
Source- Park Textbook – 27<sup>th</sup> edition page- 152

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# HADDON MATRIX- RTA

Factors ↓ Phases ↓	Personal Factors	Equipment Factors	Physical Environmental Factors	Social Environmental Factors
Pre-event	Driver skills Driver attentiveness Sobriety	Maintenance of brakes, tires, etc. Windshield cleanliness	Roadway condition Darkness or glare	Attitudes to drink driving and speeding, Use of restraints
Event	Human tolerances to crash forces Wearing of seatbelts	Vehicle crashworthiness Energy absorbing design Airbags	Presence of fixed objects near roadway Unsecured objects within the vehicle	Enforcement of mandatory seatbelt and child restraint use
Post-event	Crash victims general health status	Petrol tanks designed to minimize likelihood of post-crash fire	Availability of effective emergency response	Public support for trauma care and rehabilitation

# Rule of Halves- Hypertension in Community



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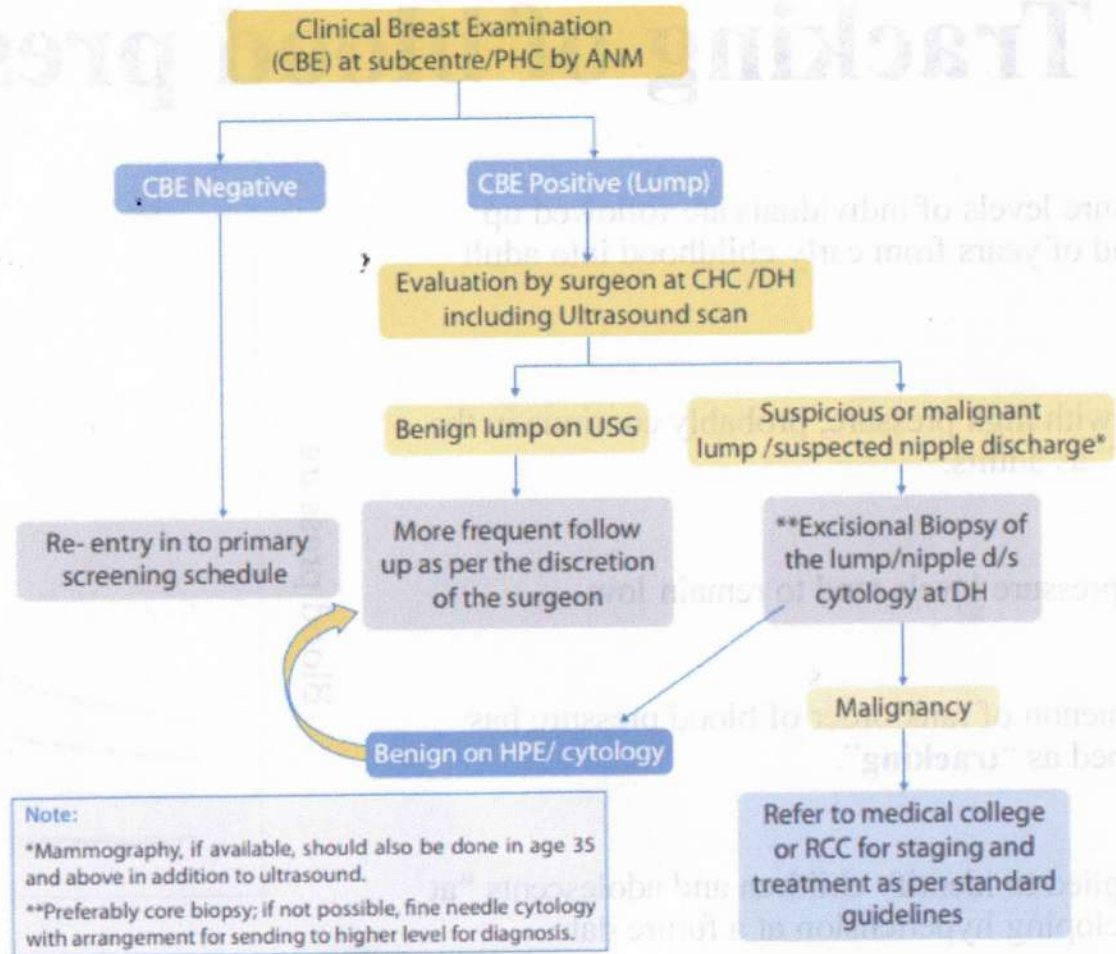
# Sustainable Developmental Goals (SDG)



Source: <https://sdgs.un.org/goals>

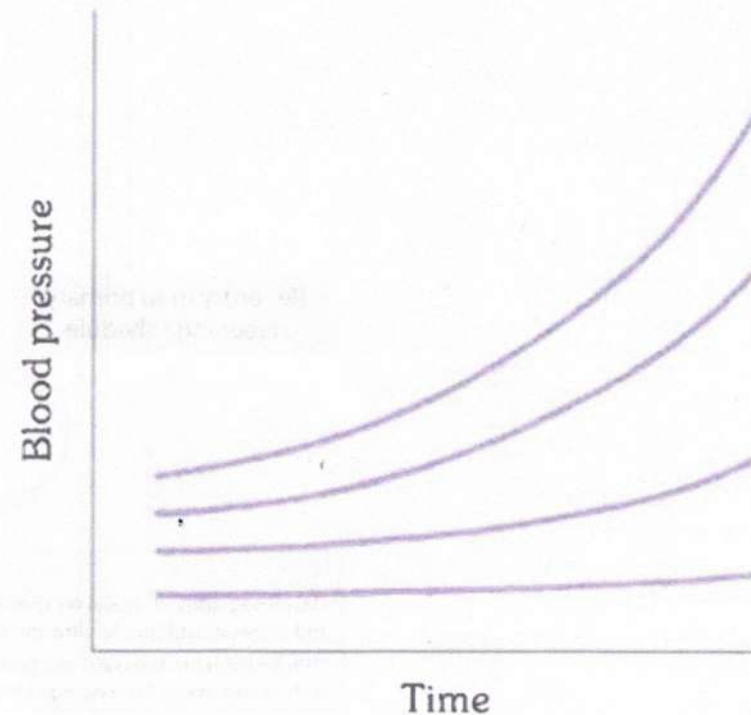
  
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# Tracking of blood pressure

- Blood pressure levels of individuals are followed up over a period of years from early childhood into adult life.
- Individuals with high pressure, probably continue in the same “track” as adults.
- Low blood pressure levels tend to remain low.
- This phenomenon of rank order of blood pressure has been described as “**tracking**”.
- It can be applied to identify children and adolescents “at risk” of developing hypertension at a future date.

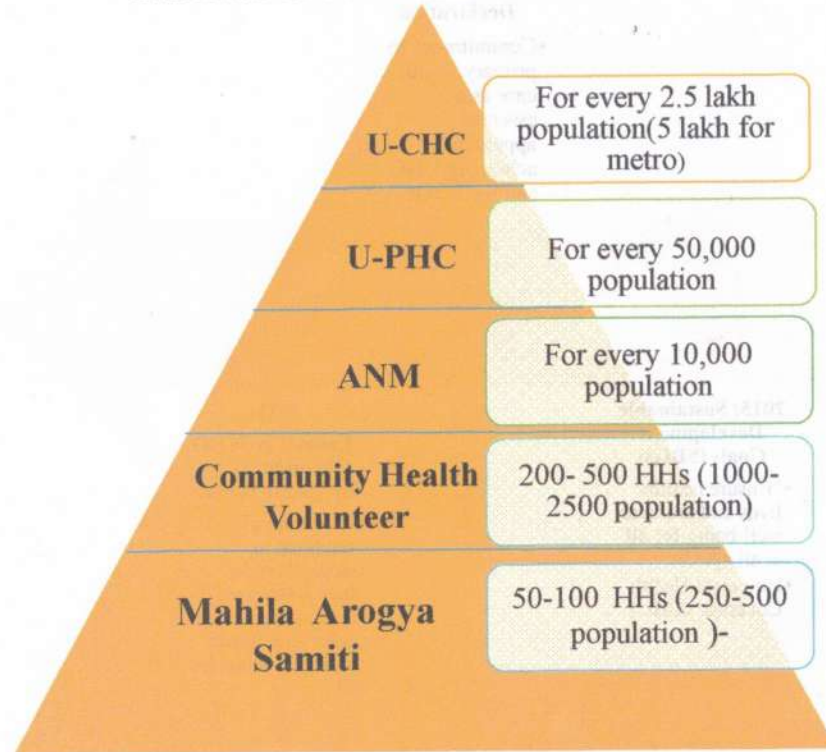


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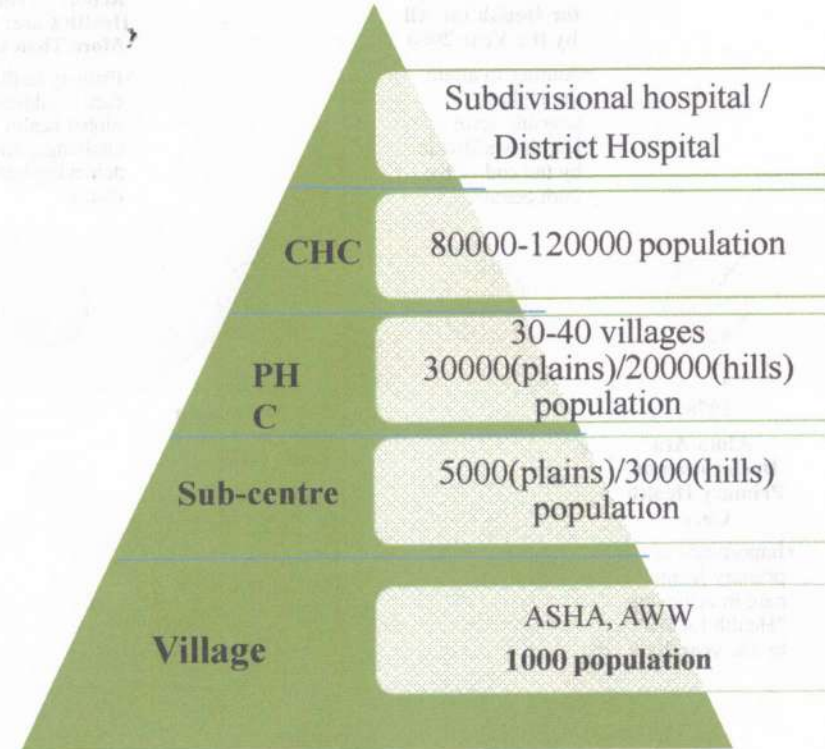
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# NHM Infrastructure

## National Urban Health Mission

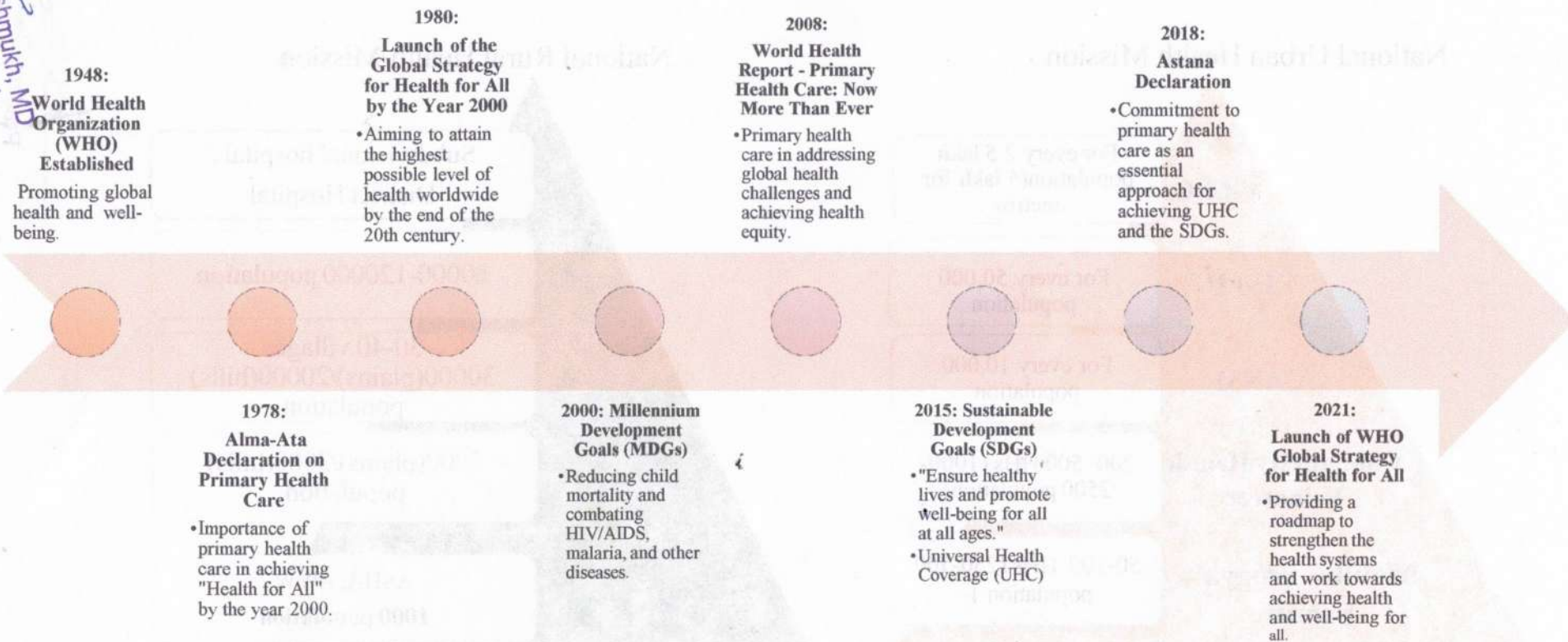


## National Rural Health Mission

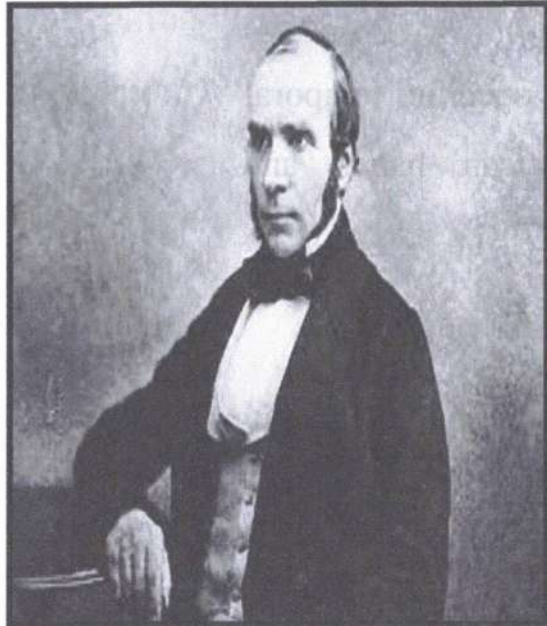


  
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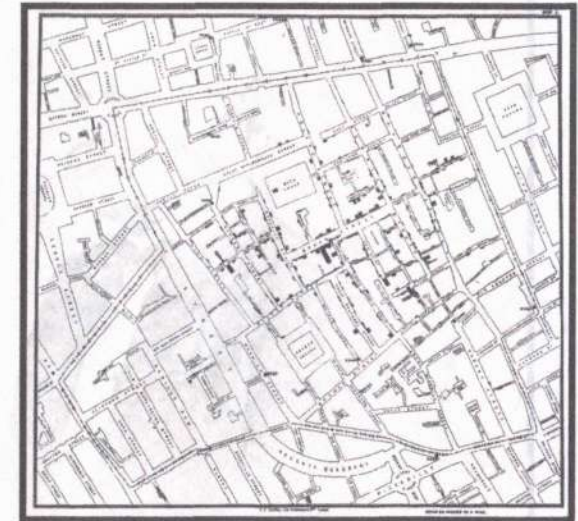
# Milestones in Public Health Evolution



# John Snow (1813-1858)



- English Physician
- Father of Epidemiology
- Natural Experiment on Cholera and Spot Map of Cholera
- Changes in water and sanitation system of London
- Paved way for shoe-leather epidemiology same as field epidemiology or intervention epidemiology imply investigations initiated in response to urgent public health problems and for which the investigative team does much of its work in the field



Koo D, Thacker SB. In snow's footsteps: Commentary on shoe-leather and applied epidemiology. American journal of epidemiology. 2010 Sep 15;172(6):737-9.

A handwritten signature in blue ink, which appears to be 'Pradeep Deshmukh'.

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