

The MANGO Study



# Introduction to Congenital Anomalies and Surveillance

# Outline

- Definitions
- Approaches to CA surveillance

# Learning Objectives

By the end of this lesson, participants will be able to:

Competency	Skills
Describe the significance of congenital anomalies	Explain public health significance of congenital anomalies
Describe public health Surveillance for congenital anomalies	Explain public health surveillance and its purposes to key stakeholders

# Definitions

- Congenital anomalies are defined as abnormalities of body structure or function that are present at birth and are of prenatal origin
- Synonyms
  - Congenital abnormalities
  - Congenital defect
  - Congenital malformations

# Significance (WHO 2010)

- 270000 deaths within first 28 days of life (neonatal deaths) globally
- Neural tube defects most serious and most common

# Why collect data on Congenital Anomalies?

To gain a better understanding of the burden of and risks for these conditions, refer identified infants to services in a timely manner, and use prevalence estimates to evaluate any current prevention or clinical management programmes.

# Public Health Surveillance

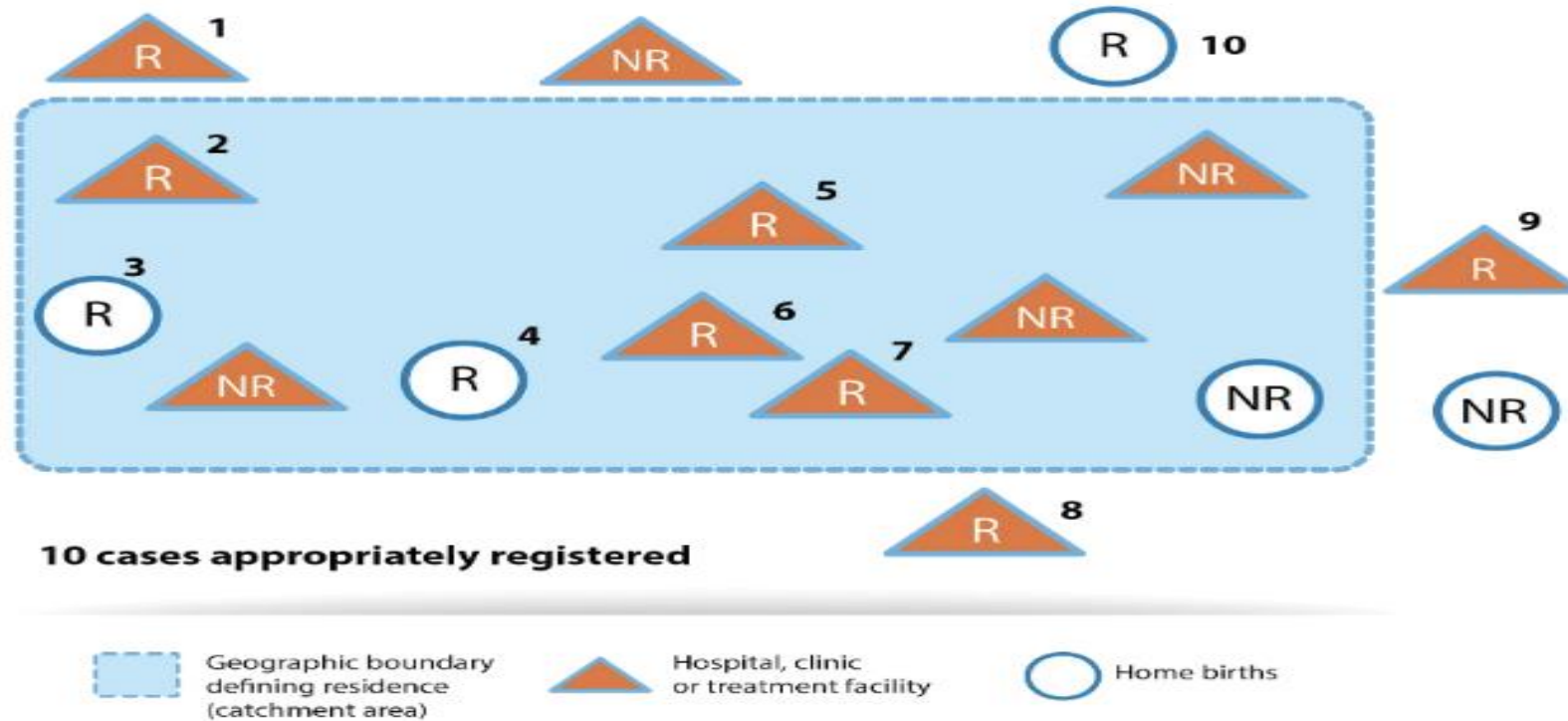
- Public health surveillance is defined as the ongoing, systematic collection, analysis and interpretation of health data for public health purposes, and the timely dissemination of public health information for assessment and public health response to reduce morbidity and mortality
  - Planning
  - Implementation
  - Evaluation

# Types of Surveillance Programs

- Population based
- Hospital/facility based
- Hybrid of the two
- MANGO is ....



# Population vs Facility Based Surveillance



**R** = fetus or neonate with congenital anomaly whose mother is a resident.  
**NR** = fetus or neonate with congenital anomaly whose mother is a non-resident.

Denominators:

Population = all births in the defined population over specified period

Facility = all births within facility over specified period

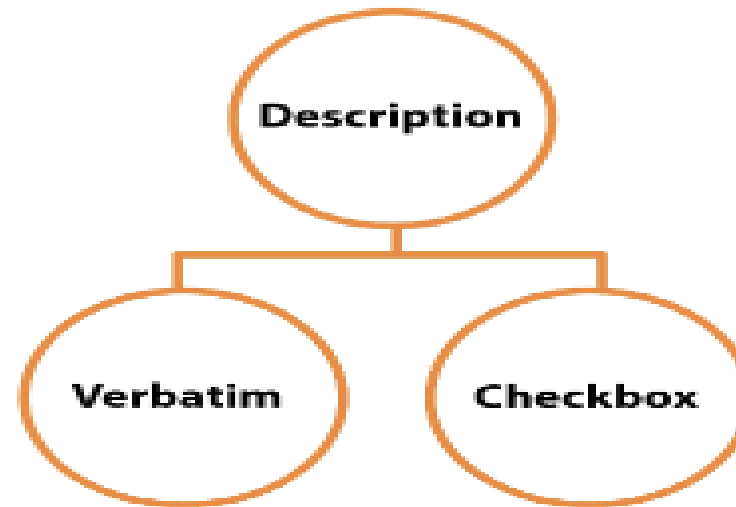
# Case Ascertainment

- Active – dedicated data abstractors
- Passive – health workers
- Hybrid –both data abstractors and health workers

# Case Inclusion

- All CAs
- Selected CAs
- Phased inclusion from selected to all
- Description format
  - Verbatim description
  - Checkbox
  - Photography

# Case Description



## Verbatim description format

Selected congenital anomaly	Description/comments/details
	Baby born with unilateral, left cleft lip; palate is intact. Baby also has microcephaly and clenched hands.
1. Cleft lip	

MANGO study restricting age of inclusion to neonatal period ( $\leq 28$  days)

## Checkbox format

Neural tube defects:
<input type="checkbox"/> Anencephaly
<input type="checkbox"/> Encephalocele
<input type="checkbox"/> Spina bifida
Orofacial clefts:
<input checked="" type="checkbox"/> Cleft lip
<input type="checkbox"/> Cleft palate
<input type="checkbox"/> Cleft lip and palate
<input checked="" type="checkbox"/> Other