Child Abuse and Neglect Relational diagnosis using ICD codes : Considerations for LMIC

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Presentation Outline

- Background
- Objectives
- Child maltreatment: conceptualization
- Child health and child maltreatment info systems
- International Statistical Classification of Diseases and Related Health Problems (ICD) & use for CM
- Considerations for LMICs & challenges going forward

Background

- Child maltreatment (CM) definition

"**all forms of physical and/or emotional ill-treatment, sexual abuse, neglect and negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the *child's health*, *survival*, development or dignity in the context of a relationship of responsibility, trust or power" (WHO & ISPCN, 2006, p.9)**

- **Forms of child maltreatment**
  - **Child physical abuse (CPA)**
  - **Child sexual abuse (CSA)**
  - **Child neglect (CN)**
  - **Child emotional abuse (CEA)**

- **CM: health consequences**
  - **Fatal and non-fatal**
  - **Life long – adverse childhood studies (ACEs)**

Background [cont'd…]

- **CM & global public health; LMICs and Africa**
  - Affects both the developed and developing countries
  - WHO (2002) estimated 57 000 children die annually due to fatal maltreatment.
  - The highest homicide rates affect children aged 5 years and younger and occur mostly in Africa.
  - Further estimated that in Africa, child homicide rate is 17.9/100 000 boys and 12.7/100 000 girls.

Objectives and Approach

- To examines the use of ICD codes for diagnosing child maltreatment in low and middle income countries (LMICs).
- To provide a critique of the current practices of health professionals in recognising and documenting child maltreatment in health settings as well as explore the utility of ICD-10 coding in LMICs.

Approach: literature review of scholarly publications

CM conceptualization

- **Child Protection vs/and health**
  - **Information sources & information systems**
  - **Responses – both prevention & intervention strategies**
- **Child health data – morbidity and mortality do not report CM as the underlying cause**

National child health Information systems

- Vital registration – births and deaths
  - Improvements over time
  - Catalysts: Global burden of disease (GBD); collection of mortality data
  - Use of innovative measures such as verbal autopsies (VA)
  - Gaps: Causes of death esp. for younger children
- Childhood diseases (Integrated management of childhood illnesses (IMCI)
- Child Injury related morbidity and mortality
  - Child homicides? (intent??)
- Neglect related deaths
  - Infanticides??
  - Child abandonment??

National child health IS [cont'd…]

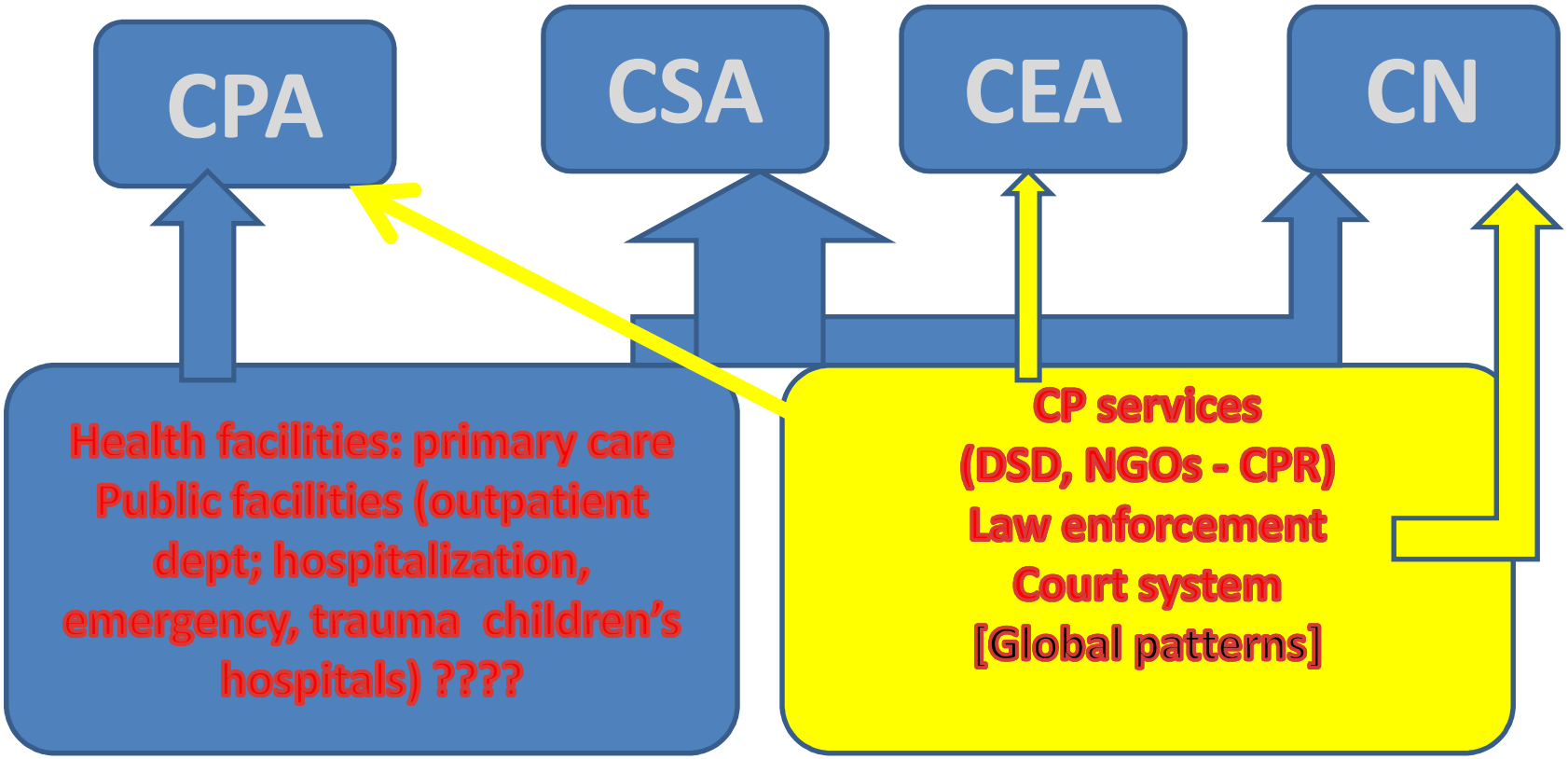
- **CM-related** injuries, illness and deaths are largely **not reported** in national child health information systems

  [***child malnutrition, dehydration, delay in seeking free medical care, burns and ingestion of poisonous agents and dangerous objects – all common in paediatric care facilities but usually documented without indicating intent***]

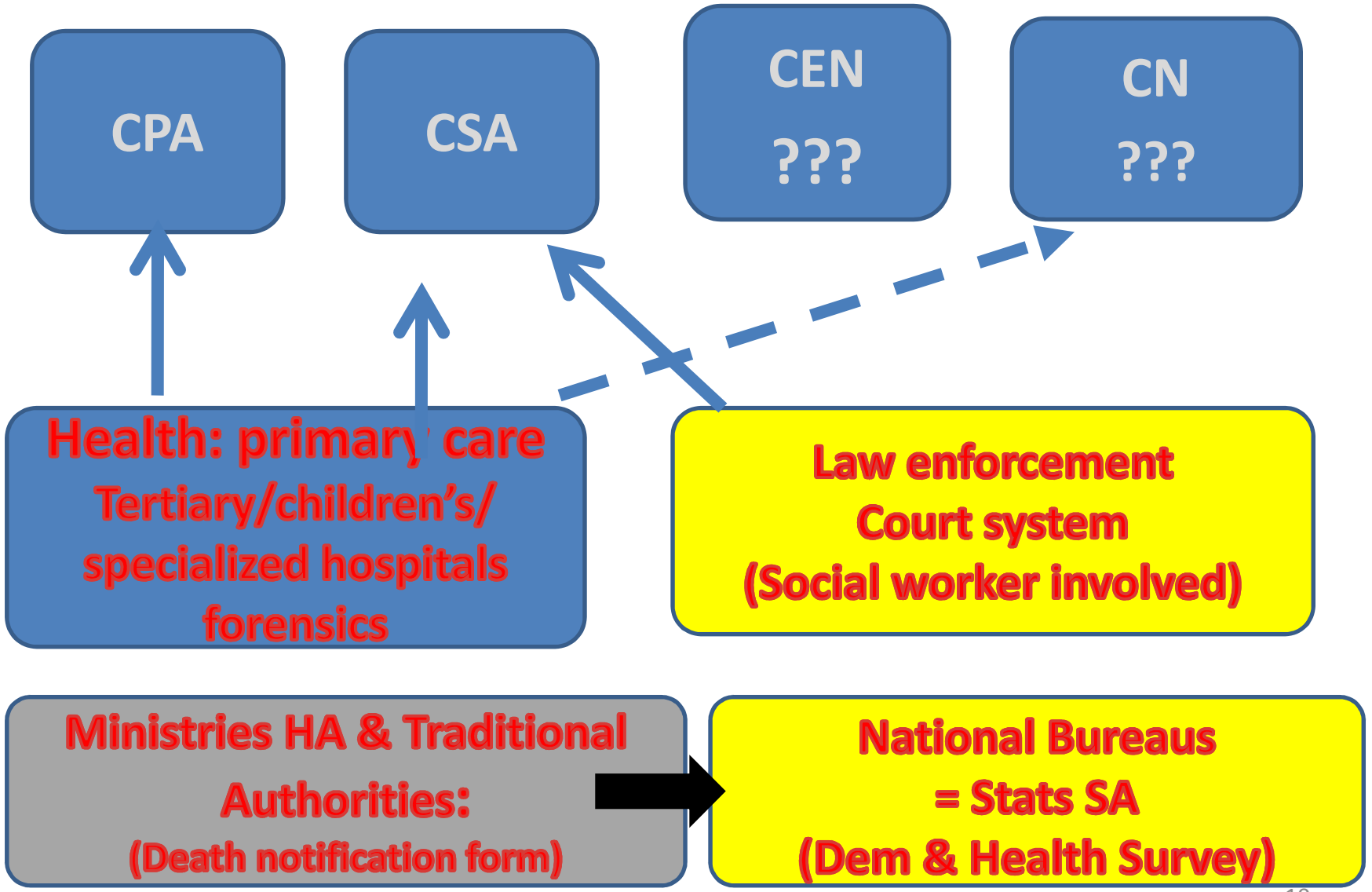
- **At global level, data mainly on injury mortality and glaring information gaps for injury morbidity**
- **CM health data sources not diverse – Child protection IS the main source in many countries**

Data Sources: CM non-fatal data

- CM has varied consequences - non-fatal (morbidity/no morbidity) and fatal (mortality)
- Information sources for Child Abuse & Neglect



Data Sources: CM??? fatal consequences data



Child health IS – SA example

- **Health:** The District Health Information System (DHIS) is used to capture data on ***child sexual abuse***.
- It is useful for surveillance studies and **can be disaggregated by Health District and gender**.

Limitations:

- The **DHIS defines a child as under the age of 14.**
  - Consequently, **data on older children cannot be captured** – they ***disappear*** *into the* adult statistics
  - a serious problem for reporting e.g. in terms of the UNCRC)
- Red Cross C. H. only sees children **below 13 years** of age and therefore, only has data on this age group**.**

(Dawes, et al 2006 [HSRC])

- **Not linked with CP system – i.e. CPR**

International classification of diseases

- The ICD developed by the WHO for classifying diagnoses and reasons for visits in all clinical and health facilities (evolved to 10th Revision or ICD-10)
- Codes consist of alpha-numeric characters ranging from 3 to 7 to provide the desired level of detail
- It has been adopted by many countries to code documented information on medical records and death certificates pertaining to causes of morbidity and mortality.
- ICD-10 is primarily used for coding causes of death (23% of countries in 2003, Mathers, et al 2005)
- Child maltreatment as an indicator of child health is underestimated in most national health information systems.

Barriers to ICD use for CM

Individual and systemic barriers

- **Lack of training about child protection among health professionals and data coders (Bannon & Carter, 2003; Scott et al, 2009).**
- **Lack of policy and weak enforcement**
- **Doctor-patient ratios in most countries do not support the lengthy process of recording diagnosis according to ICD**
- **Generation of incomplete and poor quality medical records by health professionals.**
  - **medical records and death certificates must support the use of ICD codes to minimise misdiagnosis of child maltreatment related morbidity and mortality**
  - **Time for comprehensive interviews during consultation**
  - **Doctors' perception that ICD coding is burdensome**
- **Saudi Arabia: recognition and reporting of child maltreatment increased due to the introduction of child protection centres in health facilities accompanied by enforcement of mandatory reporting of child abuse and neglect cases by health professionals (Al-Eissa & Almuneef, 2010).**

Main ICD codes used for mortality, injury and CM

- **Category 1 : Child maltreatment syndrome (Chapter XIX) of ICD-10**
- "Injury, poisoning and certain other **consequences** of external causes" and includes **T74 codes** for classifying **"maltreatment syndromes".**
- **Neglect (newborn) T74.0**
- **Abandonment (T74.0);**
- **Battered**

- - baby or child T74.1

CM syndrome codes [cont'd…]

- **Deprivation effects affecting child or infant (T74.3)**
- **Desertion (newborn) T74.0**
- **Infants** lack of care **T74.0**
- **Malnutrition –** neglect (child) (infant) **T74.8**
  - ***Due to lack of care T74.8***
  - ***Due to lack of food [T73.0] (Circumstantial neglect)***
- **Maltreatment (of)**

  - child (emotional) (nutritional) T74.9
- effects of child abuse **T74.9**

Main ICD codes used for mortality, injury and CM [cont'd…]

- **Category 2: Chapter XX codes** – "External **causes** of morbidity and mortality"
- It includes broad categories of environmental factors and circumstances as the cause of injury, poisoning and other negative effects (WHO, 2006) which are identified as **assault, neglect** and **abandonment,** as well as "other maltreatment syndromes".

ICD-10 code description used for CM

- **Y05:** "Sexual assault by bodily force" - includes rape (attempted) and sodomy (attempted)
- **Y06:** Neglect and abandonment
- **Y07:** "**Other maltreatment syndrome**": Includes mental cruelty; physical abuse; sexual abuse; torture

These are used as proxies for child but provide limited information

Key challenges using the codes

- CM syndrome are precise but more challenging to assign to diagnosis – require careful investigation: legal and social consequences
- Health professionals reluctant to use and opt for "external causes" codes
- Limited use in surveillance and research: violence
- The major problem with such data is lack of specificity, hampering global comparability
- For all categories, medical records will usually not include necessary details including perpetrator (at least 4th character code)

Way forward for LMIC

It is not known:

- **The extent to which cases admitted to emergency, trauma, inpatient and outpatient health facilities are due to child maltreatment**

- **The extent to which health professionals recognize and manage child maltreatment in clinical settings**

- **The practices of health professionals when writing medical records and data coders and the extent to which information supports ICD coding**

Way forward….

- Integration of child health information systems e.g. IMCI with CP information systems

- Training of health professionals and coders (data clerks)
- Optimize use of existing child health systems

- Primary healthcare workers: nurses, physicians, child psychiatrists, dentists, pediatricians
- Recognize potential for research, surveillance and planning

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