



A Regional Response to Improved Newborn Surveillance in Latin America and the Caribbean



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The Collaborative Monitoring Tool for Mortality Surveillance: Preliminary Findings

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on behalf of the

Regional Task Force on Maternal Mortality Reduction
and the Neonatal Alliance



Justification

- Latin America and the Caribbean women and their babies continue to die from preventable causes
- These deaths reflect unequal access to high-quality basic and emergency obstetric and pediatric care.

Justification

- Vital data are known to under-report or misclassify maternal, fetal and newborn deaths.

Aims

- As the Millennium Project ends, we sought to determine how to best assist regional governments to implement or improve maternal and newborn mortality surveillance.

Methods I

- Using the *WHO Maternal Death Surveillance and Response (MDSR) Technical Guidance (2013)* as a guide:
 - Questionnaire designed in English
 - Translated into Spanish.
- Questions separately addressed maternal, fetal and neonatal deaths.
- Regional governments were invited to participate through the Pan American Health Organization country representatives.

Methods II

- Data collection: June - September 2015
- *Lime Survey*,* an open source online tool
- Downloaded into Excel
- Imported into SPSS version 17.

*<https://www.limesurvey.org/>

Countries were classified into three sub-regions:

The Caribbean
Central America
South America.





Results

Preliminary



Characteristics of respondents:

Latin America & the Caribbean (LAC)

	LAC	Caribbean	Central America	South America
C o u n t r i e s invited	35	17	8	10
C o u n t r i e s responding (% response rate)	30 (86%)	13 (76%)	8 (100%)	9 (90%)
Respondents female (%)	53%	60%	63%	56%
Mean (SD) years in the field	13.9 (±10.3)	13.4 (±11.5)	15.0 (±11.0)	13.8 (±8.8)
Countries with surveillance data	24	8	7	9

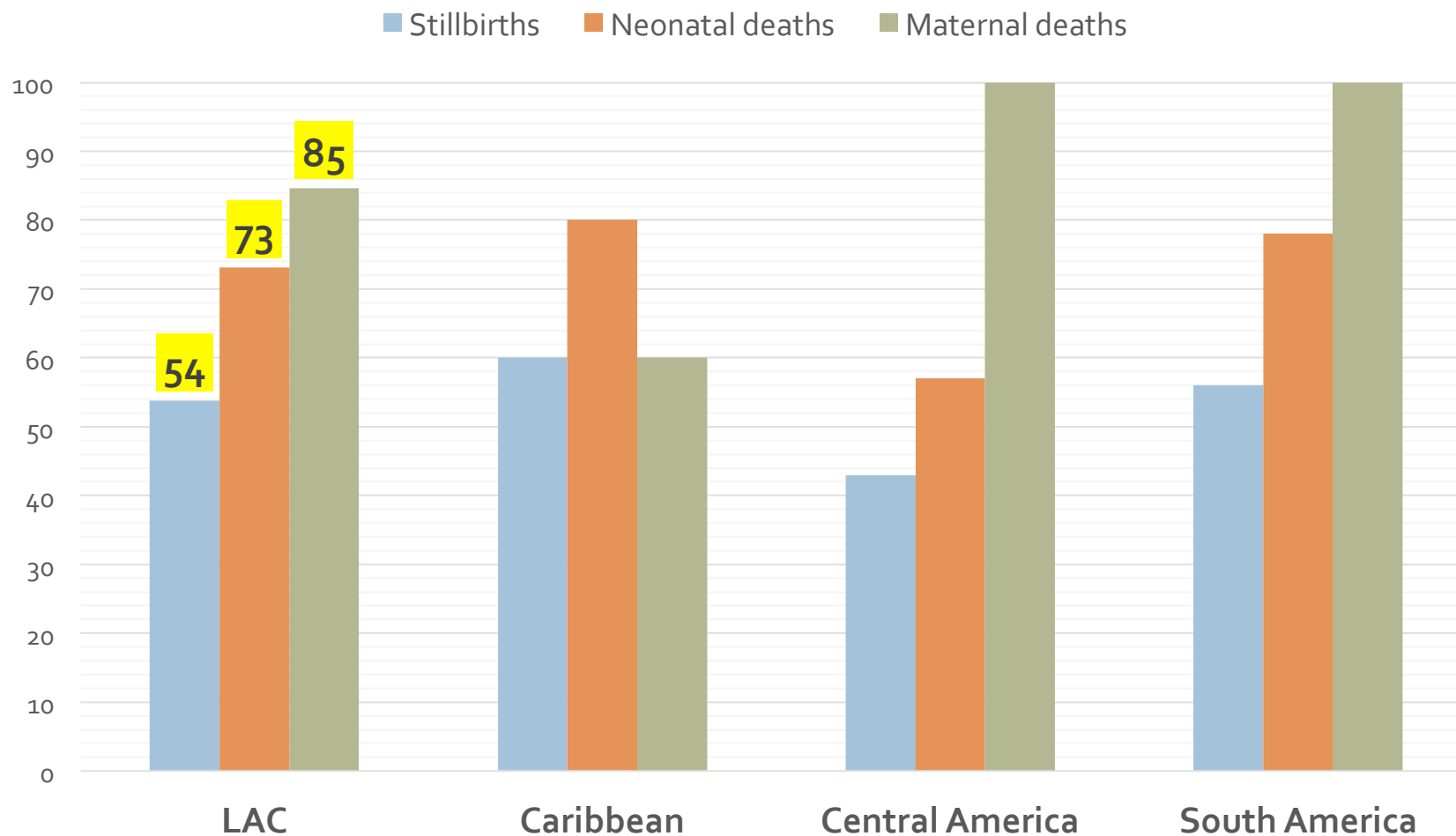


Reproductive events,
by sub-region:
2012-2014

Sub-region		Annual number of:		
		Live births	Stillbirths	Neonatal deaths
Latin America & Caribbean	Minimum	150	0	0
	Maximum	2,904,027	44,249	26,730
Caribbean	Minimum	150	2	0
	Maximum	200,404	3,027	2,601
Central America	Minimum	7,244	0	59
	Maximum	2,239,268	22,578	18,874
South America	Minimum	48,365	99	240
	Maximum	2,904,027	44,249	26.730

Maternal and perinatal surveillance systems, by sub-region: Latin America & the Caribbean (LAC)

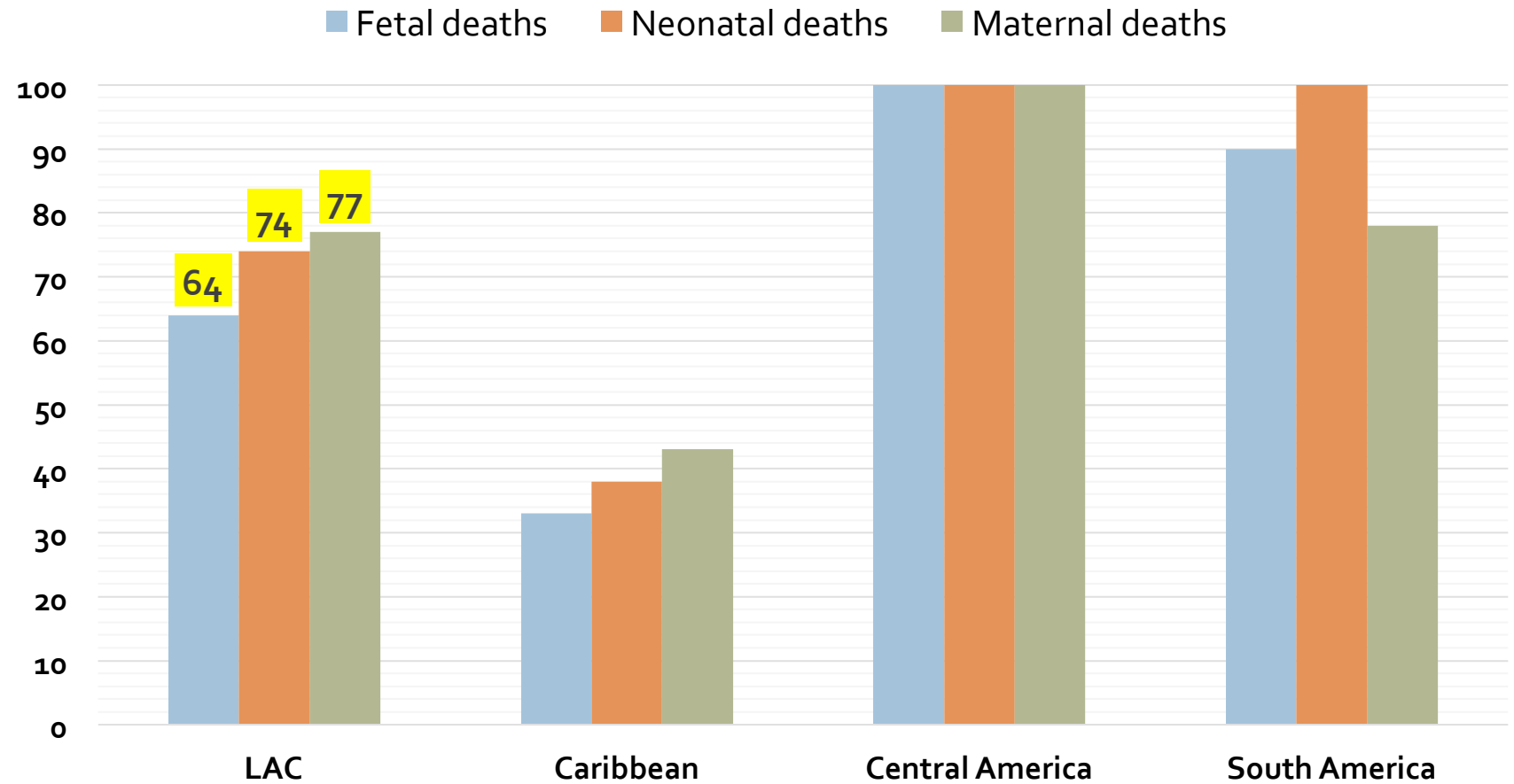
Percent of countries with surveillance systems for ...



Independence
of surveillance
systems from
vital
registration:

By outcome, Latin
America and the
Caribbean (LAC)

Per cent of surveillance systems independent of vital registration



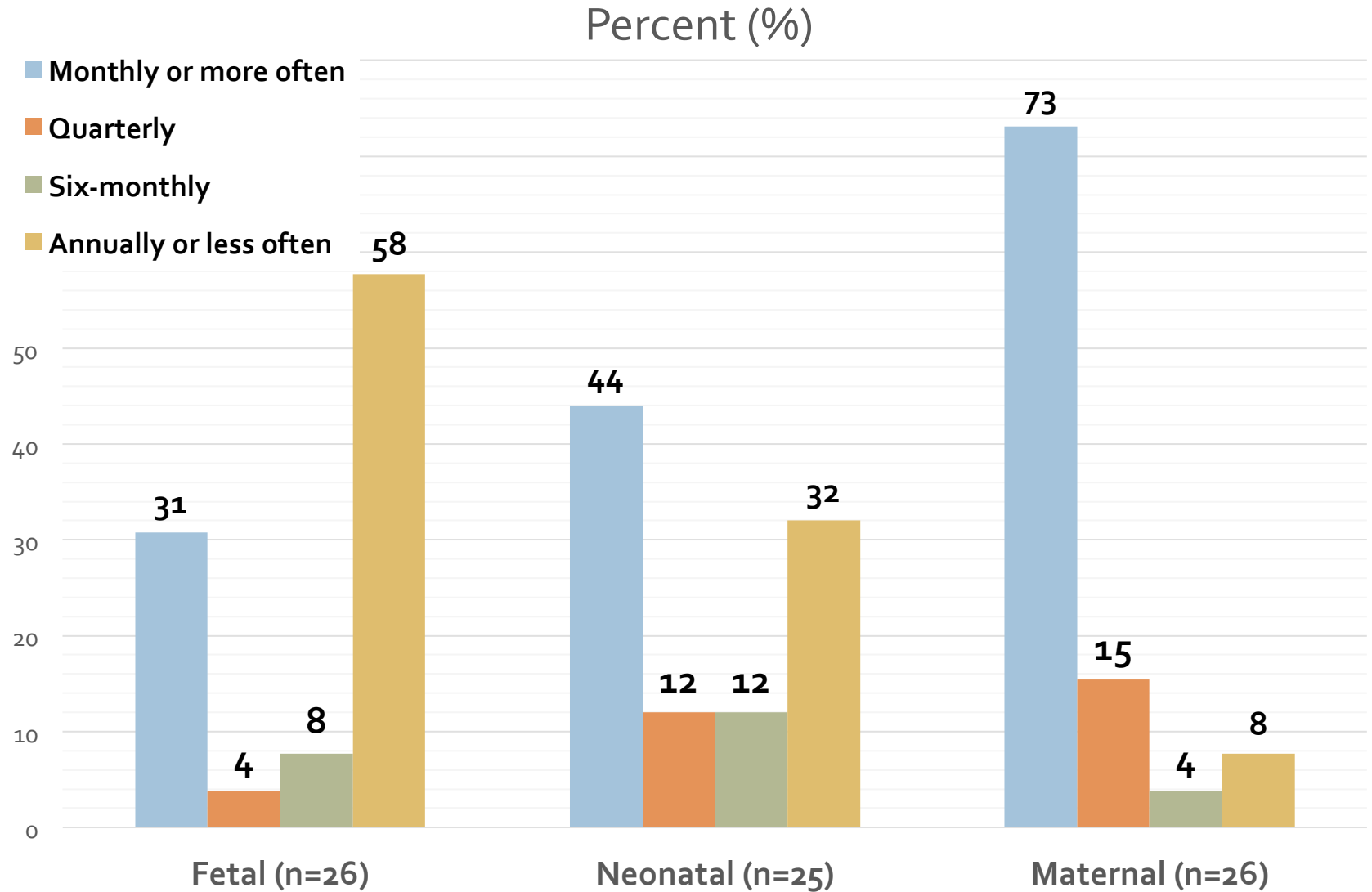
Composition of mortality review panels

- **Multi-disciplinary**
- Core team members (67-96%):
 - Obstetricians
 - Public health personnel
 - Epidemiologists
 - Administrators
 - Pediatricians (perinatal panels)
- Less often represented (42-50%):
 - Nurses/midwives
 - Statisticians
 - Pathologists.
- Least likely (<25%):
 - Civil society representatives



Frequency of death reviews:

Region of the Americas



Information on avoidable factors

- **Medical risk factors (79-96%)**
 - Underlying & immediate cause of death
 - Other medical & obstetric contributing conditions
 - Maternal age and parity
 - Gestation at delivery/birth
- **Health system factors (92-96%)**
 - Availability of drugs/medical supplies/equipment
 - Skills of health staff
- **Access to appropriate care due to delays (96-100%)**
 - Maternal decision making
 - Community factors
 - Health service diagnosis & decision making
- **Social risk factors (63-83%)**
 - Social status
 - Non-medical social risk factors



Dissemination strategies

Stakeholder group Methods of dissemination	Percent
Health team Staff meetings Internal publications Reports which are available to the public Publication in international journals	83-96 42 29-42 17
Policy makers Summary reports Power Point presentations	79-96 71-83
Public Television & other visual media Print Radio	13-17 8-13 4



Local response actions & Monitoring

- Local reviewers recommend how to address problems identified
 - **Stillbirths:** 58%
 - **Neonatal deaths:** 79%
 - **Maternal deaths:** 100%
- Problems requiring higher order action referred upward
 - **Stillbirths:** always - 58%; sometimes - 33%; never - 8%
 - **Neonatal deaths:** always - 58%; sometimes - 33%; never - 8%
 - **Maternal deaths:** always - 75%; sometimes - 25%
- **Process to monitor if local recommendations acted on**
 - **Stillbirths:** 29%
 - **Neonatal deaths:** 33%
 - **Maternal deaths:** 46%



National response, monitoring and evaluation

- National process to **respond** to recommendations from local teams
 - **Stillbirths: 42%**
 - **Neonatal deaths: 79%**
 - **Maternal deaths: 79%**
- National process to **monitor** implementation of recommendations from local review teams
 - **Stillbirths – 29%**
 - **Neonatal deaths – 38%**
 - **Maternal deaths – 46%**
- National process to **monitor** implementation of policy changes advised by national review teams
 - **Stillbirths – 29%**
 - **Neonatal deaths – 46%**
 - **Maternal deaths – 58%**





Discussion

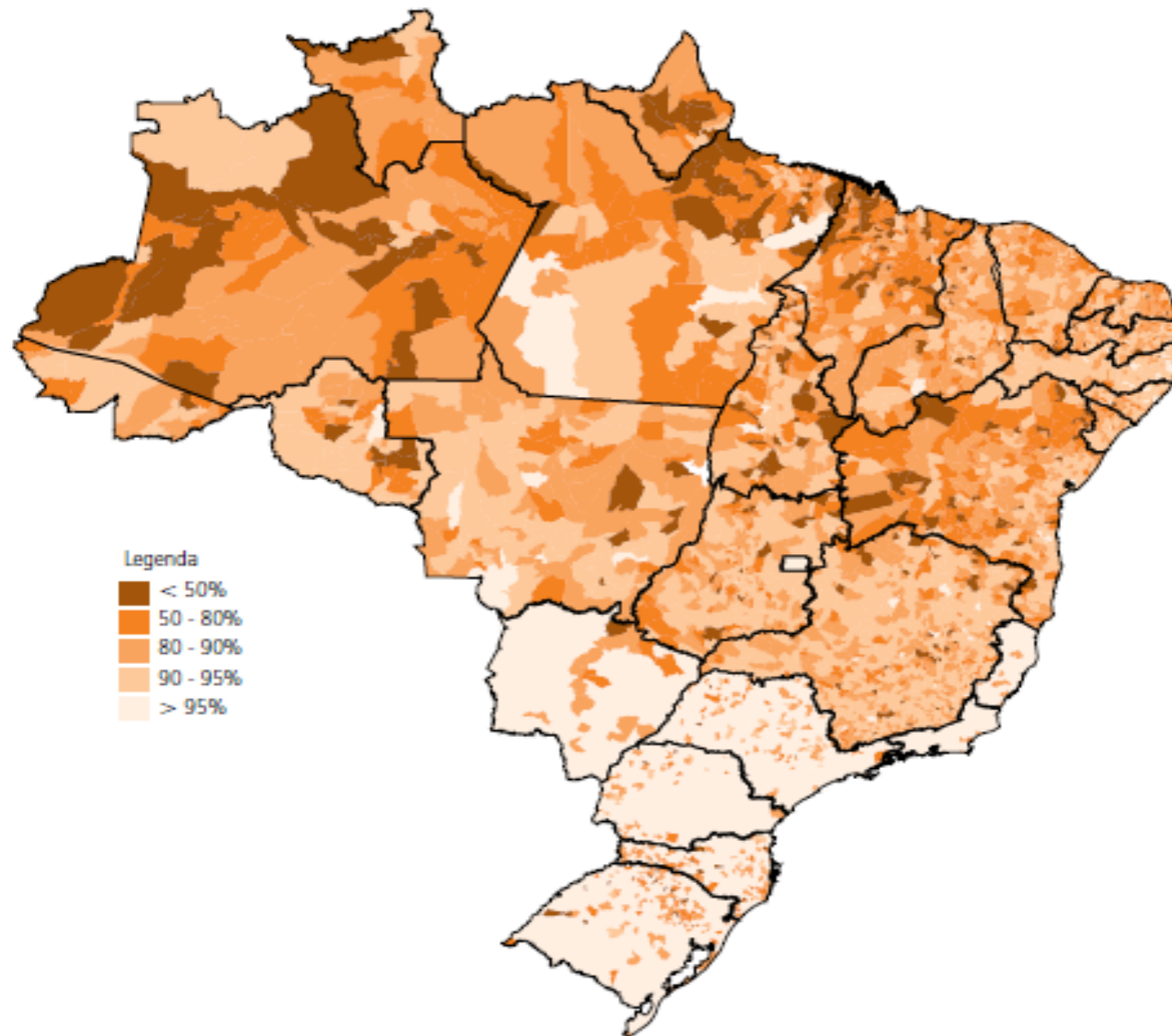
Gaps

Next steps



Coverage of information on maternal deaths, by municipality, Brazil

Despite M & E deficits, there were episodic evaluations of data quality and completeness



Source: Country studies requested by the GTR in 2012 from Brazil, Colombia, El Salvador, Jamaica, Mexico and Peru.

Stillbirth (SB) & neonatal death (NND) surveillance - I

- As perinatal death reviews (SBs & NNDs), were less frequent than maternal death reviews, they were probably not as thorough given the scale of events:
 - 24 SBs & 15 NNDs: 1 maternal death
- Where births are relatively low (<1000/year)
 - e.g. some Caribbean islands, remote rural areas
 - Perinatal mortality reviews provide an opportunity to monitor quality of maternal and newborn health care
 - More robust data
- All adverse outcomes of pregnancy have similar determinants



Stillbirth (SB) & neonatal death (NND) surveillance

- Strategies are needed to improve the review of perinatal deaths, independent of vital registration.
- Given the difference in scale (24 SBs, 15 NNDs: 1 MD), the audit burden could be reduced by sampling.
- Possible strategies include audits of:
 - Stillbirths >2500g (=25% of SBs)
 - First day neonatal deaths (=27% of NNDs)
 - **6 SBs, 4 NNDs: 1 MD**
 - 10% systematic sample of all events
 - **3 Perinatal Deaths (2 SB, 1 NND): 1 Maternal Death**



New MDSR
guidelines
coming soon!



Guidelines for Maternal Death Surveillance and Response (MDSR): Region of the Americas



Perinatal surveillance guidelines needed

- Guidelines needed to standardize the monitoring of adverse perinatal outcomes. These include:
 - How to establish and operate perinatal surveillance systems
 - Monitoring and evaluation tools
 - Coding and classification of perinatal deaths
 - WHO introducing ICD-PM in a parallel session
 - Guidance on use of ICD10 to code and classify perinatal deaths (See Özge Tunçalp)

The planning, policy & budgeting cycle

Conclusion

- For surveillance to effectively improve perinatal and maternal outcomes, findings must be integrated into planning, budgeting and resource development, including basic training and continuing education.
- Without political, financial, technical and human resource inputs, the goal to end preventable maternal and perinatal deaths will not be realized.
- The online survey tool provides baseline measures to monitor progress toward the strategic development goals (SDGs).



¡Gracias!

Caribbean: Anguilla, Antigua, Bahamas, Barbados, British Virgin Islands, Cuba, Dominican Republic, Guyana, Haiti, Jamaica, St Vincent & the Grenadines, St Kitts & Nevis, Suriname

Central America: Belize, Costa Rica, El Salvador, Guatemala, Honduras, México, Nicaragua, Panamá

South America: Argentina, Bolivia, Brasil, Chile, Colombia, Ecuador, Perú, Uruguay, Venezuela

FCI, PAHO, UNFPA

Thank You!

