

# Newborn Indicators TWG

## July 11, 2013



## Welcome & Meeting objectives

# Overview of Newborn Indicators TWG

- Formed in 2008
- Representation from multiple stakeholders
  - UNICEF/MICS, DHS, WHO, USAID, NGOs, etc
- Biannual Meetings (last met December 2012)
- Aims:
  1. Reach consensus on key indicators
  2. Advocate for inclusion in major surveys and routine health systems
- Initial areas of focus:
  - Household Surveys: Postnatal contact and content, Newborn care behaviors/ practices
  - Facility assessments: Preparedness for newborn care

# Contributions to Date

- Standardization of measurement of postnatal contact
  - Collect for ALL births
  - Within 2 years of survey
  - Ask about contact for women and babies separately

➤ Comparable data on postnatal contact in DHS & MICS4
- Consensus on:
  - Indicators of newborn care behaviors/practices & postnatal care content for household surveys (optional DHS/MICS module)
  - Indicators of newborn services for health facility assessments
- MEASURE DHS's Service Provision Assessment (SPA) revised to include additional newborn information

# Future Direction for TWG

- Growing global interest in and attention to newborn measurement (Every Newborn)
- Growing set of newborn interventions to be addressed
- **Routine health system data (e.g., HMIS)**
  - **Develop recommended indicators, tools and guidance**
- Continue to improve surveys
  - Dissemination of recommended indicators
  - Work with partners to use and test indicators
- Develop indicators and test metrics for key newborn interventions (as part of improving routine systems and other data collection methods as needed)
- Look for opportunities to validate indicators

# Meeting Objectives

- Review progress from subgroups since December 2012 meeting and agree on next steps
  - HMIS – review rationale for group, scope of work, deliverables & timeline
  - HH Surveys and HF Assessments – status of MICS and SPA, incorporation of newborn indicators into surveys and analyses, indicator reference sheets
- Provide updates on measurement issues emerging from:
  - PLoS Supplement on Measurement and implications for newborns
  - Newborn infections: review of measurement issues
- Discuss and agree on need to develop a formal terms of reference (TOR) for TWG and identify next steps

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## Objectives, Tasks & Recommendations from the HMIS sub-group

*Lyndsey Wilson-Williams*  
*Saving Newborn Lives*

# Review of HMIS Sub-group Meeting Agenda

- Review what has been done to date on inclusion of newborn health into routine monitoring systems
- Discuss an approach to develop a short-list of newborn indicators for national HMIS or other routine systems
- Respond to request from Every Newborn Action Plan (ENAP) for a short-list of newborn indicators to be included in the plan

# Sub-group Objectives

1. Provide inputs to ENAP on minimum set of indicators to include into national HMIS by mid-September\*
2. To identify indicators of coverage & quality for inclusion at different levels of health system\*
3. Review and provide guidance on documentation and data capture\*

\*each objective will include data definition, interpretation, and use



# Sub-group Tasks

## Immediate Tasks:

1. Map recommended & currently reported indicators that were reviewed to ENAP 3x2
2. Complete review of indicators & make recommendations
3. Draft language on larger context to frame the indicators for ENAP

# Sub-group Tasks, cont.

## Long-term Tasks:

1. IDEAS to explore testing of indicators in Ethiopia
2. Breakdown dimensions of interventions and select key/essential indicators for routine monitoring
3. Ensure that recommendations reflect current routine monitoring systems and suggest indicators for inclusion based on country capacity

Thank-you!



# Measuring coverage for newborn care interventions

**Allisyn Moran, PhD**

**on behalf of Newborn Indicators  
Technical Working Group**

**Women Deliver**

**Kuala Lumpur, Malaysia**

**28 May 2013**



**Save the Children®**

# Why is measurement important for newborns?

- Growing interest in newborn health
  - MDGs 4 and 5
  - WHO/UNICEF Joint Statement
- Data gaps in tracking coverage of key interventions
  - Countdown 2015 profiles
  - COIA
  - LiST review of evidence
- Opportunities exist
  - DHS, MICS, other national surveys
  - SNL and partners' sub-national surveys

# Newborn Indicators Technical Working Group

- Inter-agency group – UNICEF, ICF Macro, NGOs, researchers, SNL
- Established in 2008
- Aim – reach consensus on key indicators and to advocate for inclusion in nationally representative and specialized surveys
- Support and coordinate research and secondary analyses
- Identifies of gaps needing research

# What is the state of newborn coverage indicators?

**Postnatal care:** % of newborns with PNC visit within 2 days of birth

- Countdown to 2015 indicator
- COIA
- Included in national surveys, but limited data
  - DHS – limited to home births prior to 2006; MICS – not included until MICS4
  - Countdown 2005 report – 0 countries
  - Questions on validity – women's reports home versus facility births and definition of PNC
- Data on content/quality of care not available

# Postnatal care: Recall and validity

| Issue  | Accomplishments   |
|--|---|
| Uncertainty on mother's knowledge about what happens to baby after birth, esp. facility births | <ul style="list-style-type: none"><li>• Qualitative research – women have a good idea what happens to baby regardless of birth location</li><li>• DHS and MICS questionnaires – all births</li><li>• Standard tables in DHS and MICS – all births</li></ul> |
| Recall of past births up to 5 years prior to survey  | <ul style="list-style-type: none"><li>• DHS and MICS include births 2 years prior to survey</li></ul>   |
| Misunderstanding of survey questions   | <ul style="list-style-type: none"><li>• Qualitative research – women have difficulty understanding term “postnatal care”</li><li>• Introductory statement in MICS and DHS</li></ul>   |



# What is the state of newborn coverage indicators II?

## **Key behaviors and practices**

- Thermal care
- Immediate breastfeeding
- Clean cord care

## **Other evidence-based interventions**

- KMC
- Care-seeking and treatment for sepsis
- Not included in core DHS or MICS questionnaires

# Newborn behaviors and practices

| Issue  | Accomplishments   |
|--|---|
| Uncertainty on mother's knowledge about what happens to baby after birth, esp. facility births | <ul style="list-style-type: none"><li>• Qualitative research –<ul style="list-style-type: none"><li>• women can recall the event sequence for delivery and immediate newborn care practices</li><li>• no difference in recall between women with facility-based births and home births or the timing of the birth relative to the survey.</li><li>• women have difficulty recalling the exact timing of events as measured in hours and minutes</li></ul></li><li>• Limit timing questions to hours (and not minutes)</li></ul> |
| Overlap wrapping and drying  | <ul style="list-style-type: none"><li>• &gt;90% babies dried also wrapped (SNL endline surveys)</li><li>• Limit question to wrapping/wiping</li></ul>   |

# Recommended Indicators:

## PNC coverage

- Consensus on global indicator
  - % of women/newborns who received PNC within two days after delivery
  - Includes ALL births
- Comparable data DHS and MICS
  - Revision of DHS core questionnaire (2010)
  - MICS4 PNC module (~20 countries)
- More data available for global monitoring
  - Countdown 2012 report – 25 countries (home births); 4 countries (all births)

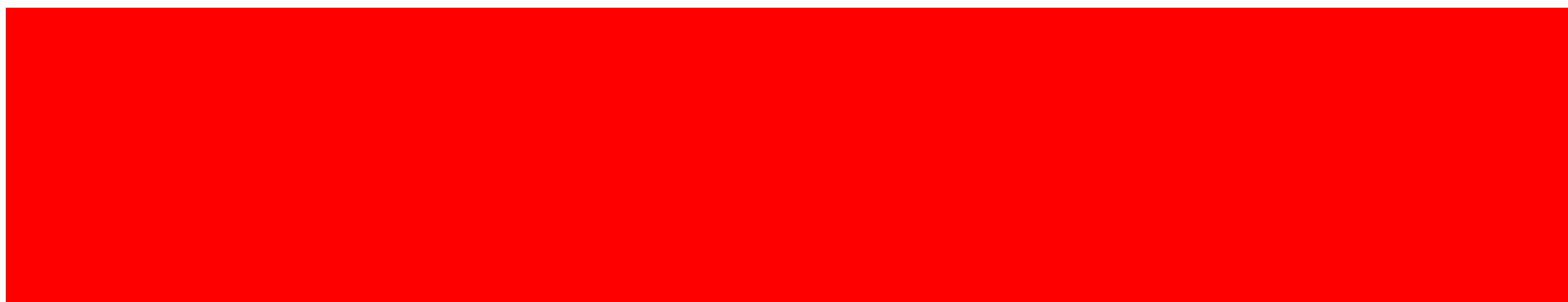
# Recommended Indicators: Newborn Behaviors and Practices

| Indicators Recommended   | Notes            |
|--|------------------|
| Percent of newborns dried after birth                              | All births       |
| Percent of newborns with delayed bath at least 6 hours after birth | All births       |
| Percent of newborns with cord cut with clean instrument            | Home births only |

| Indicators Additional Testing   |            |
|---|------------|
| Percent of newborns placed on the mother's bare chest after delivery                              | All births |
| Percent of newborns with nothing (harmful) applied to cord (from cord cutting until it falls off) | All births |

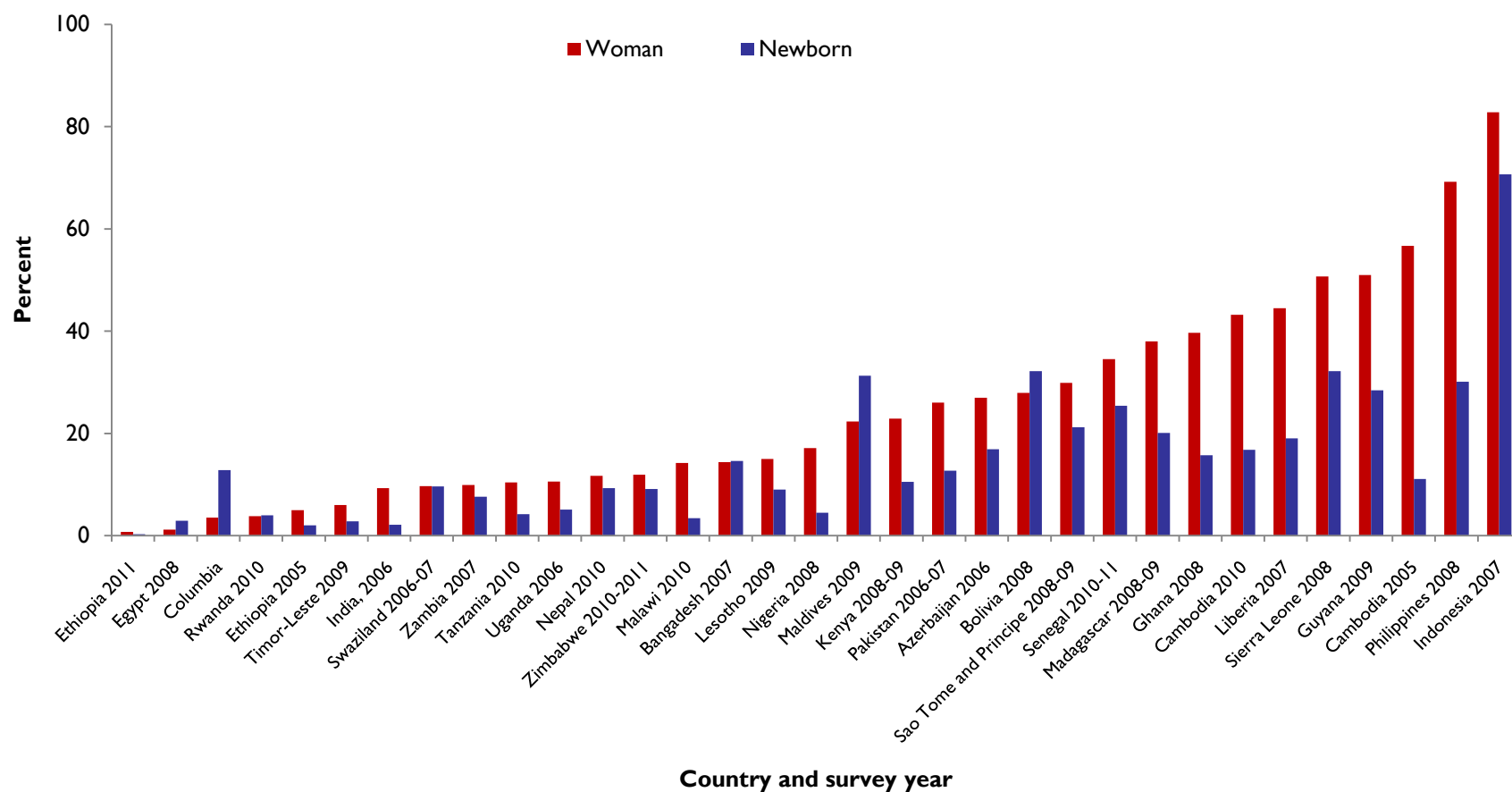
# Research Gaps

- As more PNC data become available – need to assess:
  - Women’s understanding of PNC – is this “intrapartum care” or “postnatal care”
  - Feasible to combine PNC for woman and newborn into one indicator?



# PNC women and newborns

Percent of home births for which women and newborns received PNC within two days of delivery, DHS data 2005-2011



# Next steps for measurement

- Finalize and test optional survey module
  - Behaviors and practices; content of PNC; multiple PNC contacts
- Follow up on PNC measurement, especially pre-discharge PNC
- Develop coverage measures of evidence-based interventions
  - KMC
  - Care seeking/treatment newborn sepsis
- Vital registration, stillbirths, HMIS



# Acknowledgements

- Newborn Indicator Technical Working Group members
- Researchers who investigated these questions
- CHERG
- Bill and Melinda Gates Foundation

Tools and materials available on Healthy Newborn Network (HNN) website:

<http://www.healthynewbornnetwork.org/page/newborn-numbers>

**THANK YOU!**



# What did we do?

- Supported research and secondary analyses
  - Macro – PNC/PPC data analysis (Bangladesh and Egypt)
  - Macro – Qualitative study on recall and practices (Bangladesh and Malawi)
  - MICS4 pre-test – Mombassa, Kenya
  - ICH – Qualitative study on postnatal care recall (Ghana)
  - SNL – Secondary analyses of endline surveys

# Content of PNC

- Signal functions
  - checking the newborn's umbilical cord
  - assessing the newborn's temperature
  - observing/counseling on breastfeeding
  - counseling on newborn danger signs
  - weighing baby (if applicable)
- Optional module

# MICS4 module

- **Facility births:**
  - Length of stay
  - Before discharge, check on health?
  - After discharge, check on health?
  - If yes, who, where and when
- **Home births:**
  - Before “birth attendant” left home, check on health?
  - After “birth attendant” left home, check on health?
  - If yes, who, where, and when

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# Multiple Indicator Cluster Surveys

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MICS and the Post-natal Health  
Checks Module

# MICS4 (2009-2011)

## Surveys with PNHC Module

|                    |                   |
|--------------------|-------------------|
| Belarus            | Tunisia           |
| Moldova            | Barbados          |
| Ukraine            | Belize            |
| Lao*               | St. Lucia         |
| Madagascar (South) | Trinidad & Tobago |
| Algeria            | Ghana*            |
| Qatar              | Ghana (Accra)*    |
| State of Palestine |                   |

\* Final reports available

- The Post-natal Health Checks Module was introduced in 2011
- 15 surveys have included the module, mainly those which joined the program late
- All reports and datasets will be available before end of 2013, at [www.childinfo.org](http://www.childinfo.org)



# MICS PNHC Indicators

|      | Indicator                               | Numerator  | Denominator   |
|------|---|--|---|
| 5.10 | Post-partum stay in health facility     | Women age 15-49 years who stayed in the health facility for 12 hours or more after the delivery of their most recent live birth in the last 2 years  | Women age 15-49 years with a live birth in the last 2 years |
| 5.11 | Post-natal health check for the newborn | Last live births in the last 2 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery                                      | Last live births in the last 2 years                        |
| 5.12 | Post-natal health check for the mother  | Women age 15-49 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery of their most recent live birth in the last 2 years | Women age 15-49 years with a live birth in the last 2 years |

# MICS5 (2013-2015)

- MICS5 is in progress, the PNHC module remains as a core module in the Women's Questionnaire

## MICS Women's Questionnaire

BACKGROUND

ACCESS TO MASS MEDIA AND USE OF ICT

FERTILITY OR FERTILITY/BIRTH HISTORY

DESIRE FOR LAST BIRTH

MATERNAL AND NEWBORN HEALTH

**POST-NATAL HEALTH CHECKS**

ILLNESS SYMPTOMS

CONTRACEPTION

UNMET NEED

FEMALE GENITAL MUTILATION/CUTTING

ATTITUDES TOWARD DOMESTIC VIOLENCE

MARRIAGE/UNION

SEXUAL BEHAVIOUR

HIV/AIDS

MATERNAL MORTALITY

TOBACCO AND ALCOHOL USE

LIFE SATISFACTION

# MICS5 (2013-2015) – Confirmed Surveys

| Kosovo                 | Kenya (West-North Rift Counties) | Nepal             | Congo                |
|------------------------|----------------------------------|-------------------|----------------------|
| Kosovo (Roma)          | Malawi                           | Pakistan (Punjab) | Cote D'Ivoire        |
| Kyrgyzstan             | Swaziland                        | Pakistan (Sindh)  | Ghana**              |
| Moldova (Transnistria) | Zimbabwe                         | Cuba              | Guinea               |
| Montenegro*            | Egypt (Subnational)              | El Salvador       | Guinea Bissau        |
| Montenegro (Roma)*     | Iraq                             | Guyana            | Mali                 |
| Serbia                 | Oman                             | Panama*           | Mauritania           |
| Mongolia               | State of Palestine               | Benin             | Nigeria**            |
| Thailand (South)       | United Arab Emirates             | Cameroon          | Sao Tome & Principe  |
| Vietnam                | Bangladesh                       | CAR               | Senegal (Dakar City) |

\* Fieldwork completed

\*\* 2015 surveys

# MICS5 (2013-2015)

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- Five Regional workshops on Survey Design have been completed
- Regional Data Processing workshops in progress for countries collecting data during late 2013, early 2014
- Results expected to become available starting from end 2013

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**Incorporating recommended indicators into household survey and facility assessment tools: accomplishments and next steps**

# Household surveys

## Recommendations:

- New recommended indicators
  - Drying after birth
  - Delayed bathing
  - Cord cut with a clean instrument (home births only)
- Indicators recommended for testing
  - Skin-to-skin contact
  - Nothing (harmful) applied to cord
  - Postnatal care signal functions

## Accomplishments:

- Dissemination through:
  - PLoS supplement
  - Healthy Newborn Network website and conferences
- Incorporation into KPC
- Measure Evaluation database updated:
  - Nothing *harmful* applied to cord
  - Cord cut with clean instrument *for home births only*
  - Drying and delayed bathing remain

# Household surveys

## Next steps:

- MEASURE Evaluation database
  - Add new reference sheets on skin-to-skin and PNC content indicators
- TWG Reference sheets
  - Drafts started, but refocus on working with MEASURE Evaluation
- Moving forward with MICS/DHS core questionnaires/optional module
- Country level work to incorporate indicators
  - Bangladesh to repeat DHS with indicators for newborn care practices
  - Suggested including indicators in Zambia, Nigeria (DHS) and Malawi (MICS)
  - How to cast net wider?
- Share learning from CSHGP grantees and others using indicators in KPC
- Collaboration with validation studies
  - Population Council study in Mexico and Kenya
  - Others?

# Facility assessments

## Recommendations:

- 16 recommended indicators + 2 optional indicators on facility readiness

## Accomplishments:

- Collaboration with MEASURE DHS Project to add newborn content to SPA
  - Most indicators recommended by the TWG included in core questionnaires
- Dissemination through Healthy Newborn Network and conferences

## Next steps:

- Further collaboration with SPA on dissemination/analysis
- Collaboration with UNICEF DIVA
- Other suggestions?



# SPA update

- Core questionnaire final
- Tab plan almost finished
  - Nearly all collected delivery and newborn care data in standard tab plan including tables on:
    - ✓ Medicines and commodities
    - ✓ Items for infection control during delivery care
    - ✓ Routine newborn care practices (based on self-report not observation)
    - ✓ Supervision and training
- Data collection
  - Complete or ongoing in 3 countries:
    - Senegal, Haiti, Malawi
  - Preparation in 3 countries:
    - Tanzania, Ethiopia, Bangladesh (Bangladesh not full SPA, inventory only)

# SPA update

- Analysis opportunities:
  - Data will be publically available shortly after reports released
  - Opportunities for additional analysis:
    - Packaging information related to newborn care
    - Multi-country analysis



# **Neonatal Sepsis: Measurement Issues**

**Steve Wall  
Save the Children  
Newborn Indicators Working Group  
July 12, 2013**

# Preventive Interventions

- Clean delivery (cord cutting instrument)
- Immediate breastfeeding (colostrum) and exclusive breastfeeding (no prelacteals)
- *Cord care*
  - *No harmful substance applied to cord*
  - *Chlorhexidine*
- Counseling on danger signs
- Postnatal check up (early contact, content)

# Management of infections

- Recognition of danger signs
  - Mother, family
  - CHW
  - Health provider – which danger signs predict very severe disease?
- Timely care seeking from qualified provider
- Initiation of treatment with appropriate antibiotics
  - Health center: first dose, referral, continued treatment (7 days) if referral not possible
  - Referral facility: 7-14 days of appropriate antibiotics
    - 1<sup>st</sup> line: Penicillin (Ampicillin) + gentamicin
    - 2<sup>nd</sup> line: Ceftriaxone

# Community-based management - I

- Simplified antibiotic trials (SATT in Bangladesh, Pakistan; AFRINEST in 3 African countries)
  - Research question: are simplified regimens (fewer injections) as effective as standard regimen (14 injections over 7 days)?
  - Results expected 2013/2014
  - Aim: WHO policy change to recommend community-based treatment with simplified antibiotic regimen when referral is not possible

# Community-based management - 2

- ‘Early adopter’ countries
  - Nepal: FCHVs; health posts
  - Ethiopia: Health Extension Workers
  - Operations research: Bangladesh and India
- Lessons to date
  - Families recognize “not well” (even if specific danger sign recognition is poor) – India example
  - Families willing to seek care (if available) at health posts, including returning for full 7 day course of gentamicin – Nepal and Ethiopia

# Newborn sepsis: Measurement considerations - I

- Cord care indicator(s) – what policy (practices) are endorsed at country level?
  - CHX
    - Duration: 1 or 5-7 days?
    - Home deliveries, facility deliveries?
- PNC content: Danger sign counseling and assessment
- Care seeking
  - Referral by CHW; self-referral (what danger signs?)
  - *Timeliness* (time since onset) and *appropriateness* (qualified provider vs “quack” or traditional healer) of care



## Newborn sepsis: Measurement considerations - 2

- Facility records incomplete, HC/HP registers
- ‘Adequacy’ – completion of treatment (ie, 7 days of injectable antibiotic (and oral, if used)
  - How to measure in routine monitoring?
    - Potentially different sites of treatment (facility-community link?)
    - Lack of name-based tracking
    - Role of mother-held treatment cards?
- Rapidly changing landscape – CHX and simplified antibiotic regimens (community-based treatment)

## **Priority Next Steps for TWG (or sub-group)?**



***Thanks***