Seasonal Malaria Chemoprevention and role of CHW & CHVs in screening for TB in Ghana

Annual Meeting of Child and Adolescent TB Working Group

NTP- Ghana Team
1. Ghana Health Sector Organized in two ways

Administrative- three-tiered

Ghana Health service administrative structure

- National
- Regional
- District

A five-tiered service delivery structure

Ghana Health service delivery structure

- Tertiary
- Regional
- District
- Subdistrict (Health centre)
- CHPS Zone
Cadre of District/Sub-district/community health staff

- District
- DDHS
- Physician Assistant
- District med officer
- Community health nurse
- Public health nurse
- Health Info officer
- Nutrition officer
- Dx Control Officer
- CHV’s
CHV’s

- Not professional HWs
- They live in the community
- Know the culture, norms & Language
- Act as Gate keepers;
- Have basic education;
- mainly farmers/ petty traders,
- very influential
- Link community with CHW
- Selected by village health c’ttee
- Integrated task- mal, TB, Epi, Reproductive
Basic TB services by CHW’s & CHV’s in the community

• Provide information on TB
• Identify presumed cases and register them in the community registers and referral
• Contact tracing
• Defaulter tracing (Lost to follow – up patients)
• Treatment supporter
2. Seasonal Malaria Chemoprevention

• SMC existing service under NMCP during the rainy season

• Provides anti-malaria prophylaxis for under-fives in high burden areas

• CHWs and CBSVs are involved in providing SMC from house to house
2.1 Why the need for childhood TB screening?

- Proportion of childhood TB notified in Ghana is low at 5% and declining compared to Programme acceptable target of 8-10% of total case notification

- Limited health worker capacity to diagnose childhood TB in the region (usually missed in a facility)

- There are missed opportunities to find TB among population of high-risk children
3. Objectives of integrating TB into SMC

• General
To pilot integration of TB Screening into SMC for potential TB case detection among U-5 in Ghana

• Specific objectives
Feasibility
Acceptability
4. Methods

• Study Design: Cross-sectional Study

• Study Area: All 11 Districts

• Inclusion Criteria:
  • Children under 5 years in households of anyone with chronic cough
  • Children with swelling in the neck,
  • Children with poor growth
  • Children with symptoms (Very ill children)
  • Any other person coughing
TB_SMC
Piggybacking
Map of Ghana

Upper West Region of Ghana
Under-5 Children: 19.7% of pop (2016)
Assets for diagnosis

X-ray team

Gene X'pert

Trained Clinicians
Zoning of the Region for the purpose of the project

2 zones per district  11 districts  22 zones
1. Stakeholder engagement

- Regional Director of Health Services
- Deputy Directors of Public Health, Clinical Care & Nursing Services
- District Directors of Health Services
- Medical Superintendents of District Hospitals
- Medical Doctors
- Physician Assistants
- District Disease Control Officers (Focal Persons for TB & Malaria)
- District Nutrition Officers
- CHV’s
Districts engagement
Capacity Building for Clinicians
Preparing volunteers

- Through Sub-district trainings
- What kind of questionnaires will they use?
CHV’s : Duties

“Dosing of the children” - Malaria med

TB Screening

Registration of children Meeting Eligibility Criteria - TB

Appointment dates

Follow-up of diagnosis
Volunteer Screening Tool for Households

Mandatory Questions for Each Compound/Household. For MUAC Colour Please tick column for R if Red; Y if Yellow; G if Green

- Is there any child sick in this house?
- Is there any child not growing as expected in this house? Check MUAC.
- Is there any child or adult coughing in this house?

<table>
<thead>
<tr>
<th>No.</th>
<th>Landlord/Head of Compound</th>
<th>Name of Child (Or Coughing Adult)</th>
<th>Age (Yrs &amp; Mths)</th>
<th>Sex</th>
<th>Child Sick</th>
<th>Cough</th>
<th>Neck Swelling</th>
<th>MUAC Colour</th>
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CHW’s (Field Coaches) What do they do?

- They are the sub-district supervisors of the malaria SMC.
- They will supervise volunteers.
- Collect data on children Meeting Eligibility Criteria - TB.
- Give appointment dates.
- Ensure caregivers+ chdn to lab centres.
Methods

Revision of symptom screening tool with stakeholders

Active screening of TB from house to house

At least one symptom gets chest X-ray + CAD4TB

At facility, clinical evaluation per national guidelines and diagnosis

X-ray images re-examined by two independent radiologists
5. Results-1/2

- High Participation rate
- High household coverage
- Same resources were used with minimal marginal cost
Results - under-5

Using Symptom screening tool

117490

Presumed TB

652

Abnormal X-ray + CAD4TB reading

202

No. diagnosed by clinicians and put on treatment

18

Total population screened
## Results 2/2 in one week

<table>
<thead>
<tr>
<th>Parameter</th>
<th>No. diagnosed of TB</th>
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<tbody>
<tr>
<td>Children &lt;15</td>
<td>30</td>
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<td>Children &gt;5 and &lt;15</td>
<td>12</td>
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<tr>
<td>Children &lt;5</td>
<td>18</td>
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<td>Adulthood Genexpert confirmed</td>
<td>20</td>
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<td>Children with TB put on treatment</td>
<td>30</td>
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<td>Children malnourished (0-14)</td>
<td>26</td>
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<td>Total number of people: sputum collected</td>
<td>397</td>
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Children taking x-rays
A typical xray + CAD4 reading
6. Challenges

- Equipment breakdowns
- Vehicle breakdowns
- Long travel distances to facilities
- Lack of child friendly attractions during x-ray taking
- Lack of protective shields for care providers and children
7. Successes 1/2

- All cases notified had never been diagnosed of TB by the programme prior to the project

- 2015: 1 case of under-five notified by programme (in one year)

- 2016: 20 cases of under-fives notified, 90% (18 in one week) through TB-SMC
7. Successes 2/2

- Engagement of large numbers of health staff including volunteers (capacity built)

- Several adult TB cases identified during the activity
8. Conclusion

• Integration of SMC in Ghana is feasible and acceptable (full results analyses will be available soon especially cost.

• There are prospects for scale-up in Ghana

• Through presentation at WARN-TB, Guinea has decided to pilot it this year

• Burkina Faso-2018
9. Recommendation

- This should be scaled up to the national level

- Advocacy for potential funding

- Lessons learnt from the pilot study should be used for proper planning and implementation
Acknowledgments

• All care-givers and Stakeholders, upper West Region of Ghana
• WHO-tdr
• WARN-tb
• Global Fund.
• MOH
• NMCP
• Paediatric Society of Ghana