

# Global iCCM Operations Research Agenda

## Front-line health workers

1. What is the effect on the performance of CHWs when management of one or more disease is added to the existing responsibility?
2. Which is the effect of iCCM in improving adherence to RDT test results and rational use of drugs?
3. What are all of the roles that community-based health workers currently play apart from managing the 3 top killers, such as community-based surveillance, immunization, management of cholera, preparing families for emergencies/outbreaks?
4. Are CHWs able to assess, classify, and treat various illnesses under integrated CCM?
5. What are the best ways to improve and sustain performance of CHWs?
6. What are the costs and performance of different training methods for (illiterate/literate) CHWs?
7. What are the best methods for evaluating the quality of services provided by CHW?
8. What is the optimal number of CHWs to give near universal coverage to a given geographic area?
9. What are the roles of community-based volunteers (Red Cross, etc.) and how do they link to CHWs and formal health systems?
10. How do community-based volunteers fill gaps and can they take off some of the burden from CHWs?
11. What are the best ways of supervising CHWs?

12. Which factors increase recruitment and reduce attrition?
13. Which methods of remuneration/incentivization are effective and sustainable?
14. How can mobile telecommunication technology (mHealth) improve the quality of care and supervision of CHWs?

## **Implementation**

15. What is the cost and cost-effectiveness of iCCM?
16. What are appropriate methods for cost recovery and financing?
17. How can effective coverage be achieved by CCM (equity, community effectiveness, etc.)?
18. Which is the role of community monitoring and local accountability in iCCM implementation?
19. How can the private sector become involved in delivering iCCM and what role can iCCM play in improving the quality of care in the private and informal sectors?
20. How acceptable are CHWs to the health system, and how can CCM requirements for drugs, supplies, supervision, etc. be met? Which are the minimum and optimal health systems supports for iCCM to be effective?
21. What are health system effects of CCM on referral patterns to and caseload and case mix at first level health facilities?
22. What is the effect of iCCM on antibiotic resistance?
23. What is the impact of iCCM on drug use and therapeutic outcomes in the community?
24. How best can CCM be implemented in fragile or emergency settings? How it can be streamlined, accelerated, targeted, and monitored to reach

emergency affected communities or improve resilience? How quickly can CHWs be trained and mobilized in an emergency?

### **Management of illness**

25. How can available tools (RDTs, clinical signs, timers, drugs, pulse oximeters, etc.) be combined into clinical algorithms?
26. What is the algorithm performance in different epidemiologic and health system contexts?
27. Can mHealth applications play a role in improving the adherence of CHWs to clinical diagnostic and treatment algorithms?
28. What is the appropriate duration of antibiotic treatment of WHO-defined non-severe pneumonia in African settings?
29. Can CHWs treat WHO-defined severe pneumonia in the community?
30. How can age-dose regimens for different drugs be harmonized, and what are the effects on treatment of different packaging techniques?
31. What is the impact of pre-referral drugs on clinical outcomes of children with severe disease?
32. What treatment options are effective and safe in settings where referral is not possible?
33. What is the most appropriate antibiotic for treatment of pneumonia?
34. What is the most appropriate formulation of antibiotics?

### **Families and caregivers**

35. Do family members recognize the disease and promptly seek care?
36. What are the elements that facilitate family members to utilize CCM services?
37. Do family members follow treatment recommendations properly?

38. How can timely referral completion be facilitated for severely ill children?
39. Can mHealth applications be used to help family members recognize disease, seek care, and adhere to treatment recommendations?
40. How does prescription of multiple medicines for multiple diseases (e.g., malaria & pneumonia) impact on adherence?
41. What key knowledge and tools can be provided by CHWs to families so they can care for themselves at home in the event of an emergency (home-care) in the event that services are not accessible? How can families be best prepared for emergencies and outbreaks?

### **Impact**

42. What is the impact of iCCM on health and survival of children?
43. Does iCCM lead to increased penetration in terms of reaching the poor? (effective coverage)
44. What is the impact of iCCM on building community and health system resilience (e.g., coping with an emergency)?