# COMMENTS, QUESTIONS AND ANSWERS FROM PSBI COP WEBINAR 2-28-19

## Optimization of place of care, treatment options and referral criteria for sick young infants with PSBI- update from a technical consultation

## REMARKS FROM DR. STEVE WALL, SAVE THE CHILDREN:

Congratulations to WHO on this in-depth and informative research. It's taken us to a new level on the nature of the problems we're facing and trying to prevent neonatal mortality from infections. For me, the big picture here is to start back at the beginning where we were first trying to bring management of PSBI closer to home. We didn't have the information that allowed us to do more than just aggregate and have diagnoses without certainty as to whether or not the clinical signs that were included in various treatment options were the right ones.

We are at a different place now because of this research. What this enables us to do is to further stratify by risk the babies that have signs of PSBI and then to tailor the treatment with the goal that we would be able to hopefully simplify treatment.

- Some babies may not need the full course of gentamycin. There's some reason to believe babies in the low-risk category may be able to be treated with oral antibiotics only.
- We also know now that hypothermia is a severe sign and we should treat it differently than we were before.

These findings open up new doors and new possibilities. The meeting in WHO this week has reviewed these data and we are looking at what next steps are needed to advance research that will enable us to reach more babies with effective antibiotics. In the meeting we have gone through a series of exercises to identify key questions that are generated from these findings. I just want to share the questions that we've come up with. Hopefully this will guide future directions for donors, researchers, and implementing partners.

- Can we find a simplified regimen that's even more simplified than the current regimen for babies that are considered low risk?
- Looking at hospital-based care, is there a way that we can simplify the regimens and enable babies who are in the hospital but who improve rapidly? Is it possible to treat those babies with a shorter duration of antibiotics?

Finally, there's a need for further implementation research around critical gaps that we see in delivery. We've learned a lot about the analysis of those gaps, and have been trying to identify priority research questions. One example is on the challenge of coverage of post-natal home visits at these sites. Results here of post-natal care coverage are generally higher than what we see in a number of countries. We want to ensure that families are educated about danger signs and know where to go, so the post-natal

home visit is one of the major ways that we can accomplish that. We're proposing research that can examine this kind of coverage and how we can improve the quality of care.

## REMARKS FROM DR. TROY JACOBS, USAID

The findings are provocative and will need to be explored further. It's an exciting time if you work on PSBI, but also in the context of changing care that we are doing for children, infants, and newborns. There is implementation research going on in other countries. There is an agenda going forward, some of which will be answered by implementation research and some will be answered by more traditional types of research. The work shows that there is a real benefit to implementation research, where we are describing and identifying problems and bottlenecks, where we are identifying solutions, and thinking about what we do in terms of outpatient care for sick children and sick infants. The challenge we had is making this more in real-time. It needs to be embedded and work in the local context in the existing systems that are there, led by critical stakeholders and the government. What we need to do going forward is to develop further findings as well as develop capacity. Developing capacity not for just implementation or research, but for implementation research, so that we can make sustainable solutions that are in systems that are self-reliant.

## REFLECTIONS FROM DR ASSAYE NIGUSSIE, BILL AND MELINDA GATES FOUNDATION

I would like to thank you and USAID for taking the lead on this particular exercise to regularly conduct this webinar. We really appreciate it.

For us, the progress in rolling out PSBI implementation research is one of the most exciting areas of our MNCH work in global development. The reason why we are excited is primarily because of the epidemiology, the contribution of newborn infection to neonatal mortality and the fact that the PSBI implementation research is designed to address that. According to the recent AMANHI (Alliance for Maternal and Newborn Health Improvements) report, newborn sepsis is responsible for about 34% of neonatal mortality in south Asia, and for 39% in Sub-Saharan Africa. In absolute terms, around 600,000-800,000 newborns die annually due to infection at the global level. Therefore, treating PSBI using a simplified antibiotic approach is so pivotal to achieving the Sustainable Development Goal of NMR reduction to 12/1000 LB by 2030. The reason why we are excited is also because this is one of the new initiatives where an RCT has evolved to a global guideline and the guideline has been successfully translated into implementation research. In fact, we're now, talking about national scale implementation in some countries of Africa and South Asia. When we initiated the informal community of practice in Brazzaville, in 2015, we only had four countries that had initiated the PSBI implementation research. Right now, we have about 17 countries that are implementing the PBSI guidelines and they are all in different phases of implementation.

Moving forward, what are the areas where we need to really focus on?

- We need to realize the fact that more of the same is not going to be enough to achieve SDG targets. Just focusing on PBSI at the PHC and clinic level alone may not take us to the destination. That's why we are now talking about moving and expanding the PSBI treatment to

the next level of care, to primary hospital level, to standardize and optimize the inpatient care for sick young infants

- The other area that we would like to emphasize is the need to move towards a comprehensive approach for newborn care using the PSBI approach as entry point.
- As we all know, the first health workers for the newborn is his/her mother. We should therefore, do the maximum effort to empower women, to improve their health care seeking behavior and empowering them to understand and recognize the general danger signs when they occur.
- Finally, we need to enhance an integrated approach for maternal and newborn health through vertical integration and across the continuum of care approach.

## RESPONSE TO QUESTIONS PROVIDED BY DR. YASIR NISAR AND DR. STEVE WALL

**Question: Where did these kids with critical illness die? In the hospital or the community?**

Dr. Yasir Nisar: They received treatment either in the hospital or at the community level. We captured information about mortality anywhere during those 15 days.

**Question: Mortality is reported high in newborns with hypothermia and/or chest indrawing. Could that be an entry point to revise the classification of these babies to critical illness?**

Dr. Yasir Nisar: We are in the process, but this is the first step. Previously, we compiled these signs together and considered them as clinical severe infection. Now we are thinking about how we can see which signs are low-risk and which signs have high-risk of mortality among these seven signs. But this is the first step, we need more evidence to move towards a new classification.

**Question: How is this possible to be applied at the national level particularly in big countries, where there is no settled system of community health workers (CHWs) and where CHWs are not necessarily accepted as part of the system. How do you make this happen?**

Dr. Steve Wall: This is our greatest challenge that we're facing now, is implementing and having high coverage, high quality and really reaching scale as quickly as possible. Babies are dying now, so how are we going to get these interventions out there? The TSU sites provided some insights in terms of high intensity, coverage was better, etc., and then lower intensity, which of course is no surprise. It calls for systematic continuation of focused implementation research in which we learn what it takes to be able to deliver this intervention and integrate it into existing systems and programs at scale. We need to continue to expand, but to do so in a mode of continual learning, trying solutions and then evaluating whether those solutions are working, and then adapting and improving, continuing in that type of cycle. So, I think that this kind of implementation research is really the way forward, but at the same time we would be moving towards scale and hopefully introduction to new countries.

**Question: What is being done or should be done to reach sick young infants in emergency situations or humanitarian settings?**

Steve Wall: This is a great question. We did discuss this this week. As some of you know there's a meeting going on simultaneously in Geneva on newborn health in emergency settings. It's very clear that there must be some special focus on these difficult to reach and marginalized populations, and so at this point in time the biology of sepsis is the same. Obviously, the delivery strategy is very context driven, so we must invest resources and energy. We have to prioritize these situations and really develop systematic and well-planed approaches so we can get the evidence we need to continue to learn in each particular context how to respond best to certain types of delivery.

**Question: How do you compare the absolute number of deaths among fast breathing and clinical severe infection?**

Dr. Yasir Nisar: The prevalence of fast breathing only was 26%, so for that category there are about 1,900 kids and out of those we have 4 deaths. While in clinical severe infection we have about 5,000 young infants, out of these we had 110 deaths.

**Comment:** I appreciate Dr Assaye's comment on the importance of considering integration across levels. One comparatively simple piece to which we could be giving more attention is communication between front-line health-workers and hospital-based clinicians, for guidance on case-management. The fact that in many of the settings where we're working, most HWs (and indeed CHWs) now have mobile phones makes such communication more feasible than it was in the past.