Q&A Teleconference on RFA #2021-013: Decision Support Systems Challenge: Improving Last Mile Access to Contraceptives and Other Essential Health Commodities

Carl Leitner, Technical Director of Digital Square: Thank you all for joining today for the Q&A session on [RFA #2021-013: Decision Support Systems Challenge: Improving Last Mile Access to Contraceptives and Other Essential Health Commodities](#). The agenda for today is very simple: the first 10 to 15 minutes will be reviewing the RFA scope and logistics, highlighting a few of the areas that we want to call your attention to as you're considering applying for this Request for Application (RFA) and then it's an open question and answer session in which you're able to ask any questions for clarification on the RFA scope and logistics.

Let's begin with a review of the challenge we have, which is the Last Mile Supply Challenge. We have multiple efforts to try to improve the availability of access to family planning/reproductive health (FP/RH) commodities, and communities and service delivery points. Challenges include weak logistics management, particularly around in adequate information about inventory financing and product flows to help guide procurement processes, inadequate infrastructure such as insufficient road networks, lack of appropriate storage facilities or other infrastructural challenges, and lack of trained dedicated staff for supply chain management. These issues are among the most cited reasons in low- and middle-income countries for unmet demand nonuse and discontinuation of contraception. In this RFA we're focusing on improving the information systems around the Last Mile Supply Challenge.

This RFA is based on a [White Paper](#) that was released about a year and a half ago on the opportunities to transform public health supply chains in developing countries using Decision Support Systems. These Decision Support Systems may be designed to prove product flows, the finance flows and governance that are critical for the last mile. For the purposes of this RFA, the last mile of the supply chain is defined as communities where people live as well as any point which provides FP/RH commodities (including condoms) to clients (e.g., public and private sector clinics and pharmacies, drug shops, community health workers, home delivery services, automated dispensing solutions) so we have quite a large breadth of potential opportunities to apply Decision Support Systems.

What exactly do we mean by Decision Support Systems? They are a mixture of both non-intelligent and intelligent systems that are used to enhance the ability of decision-makers, to use data to identify where decisions need to be made, and to assist them in making them. We include the non-intelligent Decision Support Systems which can be calculators, spreadsheets, simulations, and mathematical models, as well as intelligent or learning-based Decision Support Systems that include more complex data science, artificial intelligence, machine learning tools and, potentially, drawing on data held across multiple information management systems.

But the key point of both of these is that they are used for decision-making and they could be used at many different stages of maturity of decision-making, from ad hoc to reactive, responsive, event driven, and proactive, so depending on the type of intervention that we're making in the supply chain, different types of maturities of solutions will be appropriate.

We're looking at multiple impact areas for Decision Support Systems. Being able to connect and integrate data from across the supply chain is generally an earlier enabler and dependency for realizing

the full value and potential of the other areas, which include the "observe and describe" to see exactly what is happening now in the supply chain and what's happened in the past.

The "sense and predict" to look towards the future based on current and previous information to generate forecasts for example to predict future demand to do automated order calculation to learn and adapt in which we look at previous decisions that are recorded and analyzed in order to understand and identify how these decisions can be improved, and finally to optimize and automate in which these decisions are automated and we can automate a lot of the actions in the supply chain.

A few of the key functions that we want to review and include in our Decision Support Systems are quality assurance, demand planning, supply planning, inventory management, warehouse management, distribution management, and risk management. These areas are described in more detail in the White Paper that was referenced earlier.

And finally, there are a number of transformative opportunities that are highlighted in the White Paper and questions that we can try to answer that are ready for investment in Decision Support Systems based on maturity of systems and the Decision Support System tools that are available. Questions range from *what will the demand be, what is the current state of the supply chain, when and how should I purchase and how much do I need on hand, how should the supply chain be structured, how are my suppliers and contracts performing, how can consumers make better decisions, and which product supplier should I use?*

For the purposes of this RFA, applications should work in one of USAID's family planning priority countries or one of the seven Ouagadougou partnership countries. These include: Afghanistan, Bangladesh, Democratic Republic of Congo, Ethiopia, Ghana, Haiti, India, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Nepal, Nigeria, Pakistan, Philippines, Rwanda, Senegal, South Sudan, Tanzania, Uganda, Yemen, Zambia, Benin, Burkina Faso, Côte d'Ivoire, Guinea, Mauritania, Niger, and Togo. A link to the presentation will be shared out at the end.

As we assess the RFA, we have the review criteria on the left, as well as some guidance on the right on how the technical approach should be structured. The first two bullets on the right-hand side are some general conditions on outputs and deliverables using the Digital Square global good definitions. In the third bullet, we are asking that you clearly link and indicate which of the impact areas and supply chain functions your application is linked to in terms of the White Paper, as well as any of the transformative opportunities that have been identified. If any data exchange or system integration is used, we encourage the adoption of the Open Health Information Exchange (OpenHIE) interoperability framework, as well as the GS1 and Fast Healthcare Interoperability Resource (FHIR) standards.

And finally, if a machine learning component is envisioned, there are a few conditions that we want to suggest to encourage the reuse of this machine learning components so that they can be used, both for the proposed interventions, as well as in future opportunities to ensure that we have the opportunity to reuse those interventions.

In terms of timeline, this RFA was released April 14th and the Q&A session is happening now.

Within approximately two days, we will be posting a recording and transcript to the website, including specific questions and answers that arise. Applications are due May 19th and we intend to notify decisions in June.

So now we go to the Q&A portion of the session; please feel free to ask your questions in voice or chat. We will be posting the question and answers to our website. We will do our best with verbal answers today, but if there's any clarifications or refinements of those answers, what is posted on the website should supersede anything that is said today.

Thank you for your time as we reviewed the context and the floor is yours for any questions or clarifications that you would like ask (whether on logistics or scope).

Q: Could you clarify if certification training or capacity building offered to strengthen local capacity to implement and manage digital health programs to ensure long-term success and align with country priorities is/can be considered as global goods?

A: Global goods are generally products in and of themselves (e.g., artifacts/tools) so if the content for the training or capacity building efforts is released and made publicly available under, for example, a creative commons license and it is within the scope of this RFA around Decision Support Systems, that could be considered a global good. We would have to look specifically at what you would be proposing in terms of capacity building and within DSS to see if that is within the scope as outlined.

Q: Does inadequate infrastructure include requirements for data centers or micro data centers, including artificial intelligence and machine learning tools?

A: If you're asking if this RFA could include infrastructural investments for data centers or micro data centers, I don't believe that that would be a primary intent of this RFA. If that's a necessary dependency for a proposed DSS solution within one of the priority countries within the areas that we've outlined previously, then that could be considered.

Q: Could you please clarify or give a few examples of workstreams?

A: In the RFA application what we wanted to do is to provide some flexibility, you might have two or three good ideas that you would want to be considered and those ideas may be completely independent of each other or they might be dependent on each other. What we would like for you to do if you do have multiple areas to consider is to break your application into different workstreams for each of the areas with its budget so that we can review each of the workstreams submitted to see what is most relevant to the stated scope of the RFA and within the budget that we have.

When you do submit these workstreams, if there are dependencies between them, i.e., if you have a workstream A and workstream B, you'd want to indicate that workstream B depends on workstream A so that we know when making funding decisions. If we want to fund workstream B, and workstream A is a dependency, we need to know that.

In terms of examples, we don't want to give too many examples to indicate that there's a preference for one particular type of solution or other another, but if we go back to some of the transformative opportunities, that tells you the sort of general types of questions that we want to answer and you might have a specific workstream that's focused in on distribution management which might be very distinct from a demand planning intervention. Of course, those could potentially be related and it's for you to clarify how those are put together.