Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa)

Virtual Symposium Platform

EVALUATION REPORT

January 14, 2021

National Institutes of Health
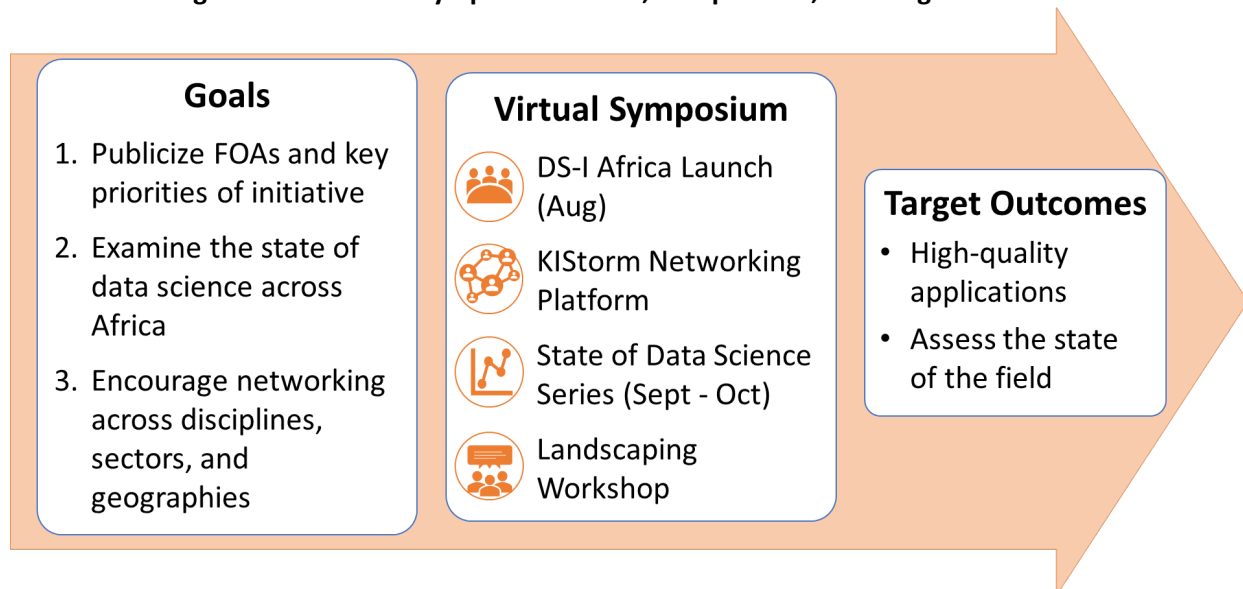Office of Strategic Coordination - The Common Fund

EXECUTIVE SUMMARY

Introduction

The National Institutes of Health (NIH) Common Fund's **Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa)** program was launched in the summer of 2020 to spur new health discoveries and catalyze innovation in healthcare, public health, and health research on the continent through application of data science. The ambitious new program consists of funding opportunity announcements (FOA) in four areas: research hubs; research training programs; ethical, legal and social implications (ELSI) research; and an open data science platform and coordinating center.

In association with the launch of DS-I Africa, NIH hosted a Virtual Symposium Platform, hereafter referred to simply as "symposium." Originally planned as an in-person meeting in Uganda, the event was modified into several online events in light of the COVID-19 pandemic. The goals, components, and target outcomes for the symposium are described in Figure 1.

Figure 1: DS-I Africa Symposium: Goals, Components, and Target Outcomes

Goals

1. Publicize FOAs and key priorities of initiative
2. Examine the state of data science across Africa
3. Encourage networking across disciplines, sectors, and geographies

Virtual Symposium

- DS-I Africa Launch (Aug)
- KIStorm Networking Platform
- State of Data Science Series (Sept - Oct)
- Landscaping Workshop

Target Outcomes

- High-quality applications
- Assess the state of the field

The DS-I Africa Launch consisted of a series of interactive, online events over two weeks in August 2020 covering the new funding opportunities, the cross-cutting priorities of the initiative, and opportunities for virtual networking. The KI Storm Networking Platform was customized for the program, providing access to online events and a variety of online tools allowing participants to network with one another. The platform included tools such as a People Explorer, Partner Profiles, a Bulletin Board, a virtual Networking Lounge, and a Resources page for participants new to NIH grants. The State of Data Science (SODS) Series included weekly, webinar-style sessions on a range of scientific topics taking place throughout September and October 2020. The Landscaping Workshop took place on December 15, 2020 to reflect on past symposium events and brainstorm ideas, themes, and questions related to the state of the field.

All information on the symposium is available on the [NIH Common Fund website](#) as well as on the [KIStorm platform](#).

Analysis

Several different types of data were collected and analyzed to assess the effectiveness of the symposium in achieving its three goals. This included: registration survey; website traffic; social media; event participation on Zoom; video viewership on YouTube; daily evaluations; post-event feedback survey; and after-action meetings. The evaluation also explored how well the online format worked, including a compilation of general lessons learned on virtual meetings.

Summary of Findings

The symposium was evaluated based on progress towards its three goals.

Goal 1: Publicize the NIH funding opportunities and communicate key priorities of the DS-I Africa program.

The symposium attracted a large and diverse audience with 2,234 people registered by the end of the SODS series, the majority of whom were from Africa. Throughout the symposium, 10,071 people visited the main symposium website while 11,089 people visited the main DS-I Africa program website. Event hashtags #DSIAfrica and #NIHAfricaData generated 577 tweets and 443 retweets from 280 users throughout the event.

DS-I Africa FOAs were directly promoted in the most widely attended session during the launch (258 participants) and in the most highly viewed video recordings, by NIH Director Francis Collins and the program officers for each FOA.

Based on feedback survey responses, the key priorities of DS-I Africa were communicated well throughout the launch events. In response to the question, "Did you come away with a better understanding of the key priorities of the DS-I Africa program?", 86% of respondents gave a high score of "Yes" (four or five on a five-point scale).

Ultimately, the number of letters of intent and applications for the FOAs was higher than anticipated, much of which may be attributed to the symposium and related outreach efforts.

Goal 2: Engage participants in robust scientific sessions that examine the state of data science across Africa.

The speakers, panelists, and moderators contributed to robust discussions throughout the symposium, covering a broad range of data science and health topics. Throughout the symposium launch events, 553 unique attendees participated with an average of 140 per session. Throughout six SODS series sessions, 477 unique attendees participated with an average of 97 per session. In addition, pre-recorded talks and recordings of sessions were all posted on YouTube, receiving hundreds of additional views.

Participants were active and engaged during live, interactive sessions, as observed in breakout discussions, chat participation, and comments during and after sessions. Of feedback survey respondents, 92% rated the symposium as "engaging and productive" (indicated by a score of four or five on a five-point scale).

Discussions throughout the symposium and landscaping workshop generated many key insights on the state of the field. NIH will build on these insights to inform a writing project that will take place in 2021. The writing project will produce a collection of scientific papers on the state of the field to help the program, and the broader data science community, reflect on progress over the next several years.

Goal 3: Encourage networking across disciplines, sectors, and geographies.

The audience for the symposium was diverse in terms of the disciplines, sectors, geographic locations, and career levels represented. Registrants identified more than 50 different data science and health

disciplines. While the majority were from academia, substantial participation also came from NGO, private sector, and government representatives. Registrants came from 62 countries worldwide, including 36 African nations.

Participants gave very positive feedback for the networking tools and events organized throughout the meeting, especially for the Partner Profiles and Partnership and Innovation Marketplace. More than 70% of feedback survey respondents noted that they had interesting conversations with people outside their sector, discipline, and geographic region. Participants noted that they were able to meet potential collaborators with 80% having met at least one and 33% having met three or more potential collaborators during the Symposium.

Highlights and Lessons Learned
Based on the data analyzed, the symposium largely accomplished its three goals. Feedback from participants, speakers, session chairs, and NIH staff was very positive. The facilitation contractor did an excellent job building interactivity into the meeting and managing technology. The planning team selected engaging and insightful speakers, panelists, and moderators, most of who were from Africa.

Participants were active and engaged throughout the meeting, suggesting very strong interest from the data science community in Africa. The adjustment from an in-person meeting to a completely virtual format was challenging, but also enabled NIH to reach thousands of interested individuals across the globe – a much larger audience than intended for the original meeting in Uganda, which was limited to 350 individuals. The flexibility of the virtual format and the ability to participate without travel also made the meeting discussions, content, and networking opportunities accessible to a large and diverse audience.

While creating opportunities for participants to engage with each other was challenging, the facilitation contractor provided expertise in supporting virtual networking opportunities and a unique Partnership and Innovation Marketplace that was well received by participants.

The planning team also observed some areas that could have been improved. The symposium agenda confused some participants and the process for making content accessible and available online could have been better streamlined. Some participants faced technological issues or had difficulty with small group discussions.

Nevertheless, the planning team was effective in achieving the symposium goals and learned a great deal about virtual meetings in the process. Findings from this evaluation will inform future activities of the DS-I Africa program, such as the writing project, as well as other NIH activities in Africa and in the field of data science.