Concept Clearance for Two Additional Funding Opportunity Announcements for Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa)

BACKGROUND INFORMATION

DS-I Africa was cleared as a new Common Fund program by the Council of Councils in September 2019 with the goal of spurring new health discoveries and catalyzing innovation in healthcare, public health, and health research on the continent through application of data science. The program hosted a Virtual Symposium and webinar series from August - October 2020 and received and reviewed applications for the four original funding opportunity announcements (FOAs) in late 2020. These include Research Hubs that advance health data science in Africa and support partnerships to enhance impact; Research Training Programs that build health data science capacity in African institutions; Ethical, Legal, and Social Implications Research Projects that explore issues impacting health data science from an African perspective; and an Open Data Science Platform and Coordinating Center that facilitates the development and administration of a trans-African network of data scientists. NIH is currently issuing 7 Research Hubs, 7 Research Training Programs, 4 ELSI Research Projects, and 1 Open Data Science Platform and Coordinating Center, which include awardees and collaborators from 18 Africa countries.

EARLY PROGRAM LESSONS

Both the DS-I Africa Virtual Symposium and response to the original FOAs reflect significant enthusiasm for health data science and innovation in Africa. The Virtual Symposium had 2,234 registrants from over 50 disciplines and 36 African countries (plus others globally). In a post-event survey, 80% of respondents stated that they met at least one new collaborator at the Symposium. The relatively nascent nature of the field was also clear from applications received by NIH - many contain new partnerships and junior researchers with significant roles. However, the complex activity code used by the Research Hubs FOA (U54) results in more favorable review outcomes for applications led by experienced researchers with long-standing partnerships.

Additionally, the DS-I Africa working group recognizes that there are many data science capacity building needs in Africa, which may not be met by degree-focused research training programs. This need for multiple capacity building approaches was also emphasized by the Council of Councils during the program discussion in 2019.

PROPOSED FUNDING OPPORTUNITY ANNOUNCEMENTS

We propose two new funding opportunities that fit within our sub-goals of advancing health data science and innovation, supporting new partnerships, and building capacity in Africa. Funding would begin in FY23.

1) DS-I Africa: Partnership for Innovation Research Projects

Objective: Support discrete research projects led by African investigators to expand the DS-I Africa network. Applicants will propose innovative health data science research and solutions in Africa with a new non-academic partner that enhances the potential impact of the research. To enhance the career pipeline and retention of health data scientists in Africa at least half of the awards will go to new and early-stage investigators (ESI).

Planned Funding**:** $3 million per year; anticipate ~ 12 awards (at least 6 New/ESI) with a 3-year project period.

2) DS-I Africa: Research Education Awards

Objective: Complement and/or enhance the existing long-term training awards in the DS-I Africa Consortium through research education awards that fill a gap and extend the reach of the consortium. Education could focus on data science or related fields (such as team science, innovation and entrepreneurship, ELSI, etc).

Planned Funding: $1 million per year; anticipate ~5 awards with a 3-year project period.