CONCEPT NOTE: OPPORTUNITIES TO SUPPORT IDINSIGHT'S COVID-19 RESPONSE

May 22, 2020

IDinsight has been supporting COVID response projects in Africa and Asia since March 2020 when our partners began urgently reaching out to us as they began formulating COVID policy responses.

The projects detailed here are **ready-to-launch and expected to be high-impact.** While they represent only part of the inbound requests and COVID-related work that we are doing, we view them as high-priority for additional funding as they meet the following characteristics:

- Have **high impact potential**, to influence hundreds of thousands or millions of lives
- Address **crucial policy questions for COVID response and recovery**; without our input, policy decisions would be made with little or weak context-specific evidence
- Are **requested by policy-makers** with urgent and ongoing evidence needs
- **Leverage IDinsight's competitive advantage:** technical toolkit, local knowledge, existing relationships, and ability to respond nimbly to policy-makers' needs
- **Remain unfunded** as of May 19, 2020. Since parallel fundraising efforts are in process, we propose for GiveWell to identify the projects that meet their criteria and to be flexible across projects to ensure GiveWell funding is always additive. In many cases, funding a portion of the budget would enable proof-of-concept work to crowd in additional funding.

Summary of ready-to-launch projects

Partners	Project	Location	[redacted]
1. New Delhi Chief Minister's Office and Health Department	Delhi's Chief Minister's Office and Health Department have asked IDinsight to 1) build a robust and dynamic data system to track COVID-19 at a granular level, and 2) provide ongoing analytical and research support to directly inform their daily decision-making needs at the highest levels.	New Delhi, India	[redacted]
2. Evidence Action and UCSF to support LMIC governments	Initiative to develop LMIC COVID policy playbooks. Initial workstreams include 1) an effort to help Indian states maintain delivery of essential health services and 2) creation of COVID testing strategies and tools for several specific countries (likely Senegal, South Africa and/or India) and generalized LMIC use.	Global / India and Africa	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

	[redacted]		
5. LMIC Governments	COVID-19 policy support for several government partners: [redacted]	[redacted]	[redacted]

1. DELHI GOVERNMENT: DATA SYSTEMS AND POLICY SUPPORT FOR CHIEF MINISTER'S OFFICE AND HEALTH DEPARTMENT

PROJECT OVERVIEW

Home to 20 million residents, Delhi is one of the world's largest urban areas. The COVID-19 pandemic presents an existential challenge to Delhi's overburdened public health and service delivery systems. Delhi has over 4,000 active COVID-19 cases, the second largest caseload amongst Indian cities,[1] and cases are currently doubling every 10-11 days.

The Chief Minister's Office and the Health Department of the Government of Delhi have approached IDinsight to immediately support its COVID response. They have asked IDinsight to 1) build a granular and dynamic data system to track COVID-19, and 2) provide analytical and research support to directly inform their daily decision-making needs at the highest levels.

The Delhi Government's first and immediate request is to build a robust, efficient, and **decision-relevant data system for COVID-19** information system for its hospitals, health facilities, and quarantine centres. This data will be used by senior officials on a daily basis for their decision-making needs. With some economic activity being permitted in the past week, this type of high frequency information will be critical to setting testing targets, defining quarantine requirements, allocating scarce resources, and meeting critical care needs.

The government's initial approach to collating COVID-19 information from health facilities was built overnight. Despite significant progress, the system is still ad-hoc and haphazard, with different physical formats, inconsistent data recording styles, and unsystematic data processing. Recent attempts to digitize these disparate information sources have been uneven and inconsistent, and could result in data loss, data quality problems, privacy infractions, and other challenges. IDinsight's experience in assessing and building monitoring and data systems for government and non-government partners positions us well to meet this request.

Building upon this work, IDInsight has built a modeling team consisting of data scientists, epidemiologists, and economists. This team is building models to project health, economic, and social costs of social distancing policies, and providing the government with actionable cost-benefit analysis. This team has already built a Delhi-specific version of the Imperial College SQUIRE epidemiological model, and conducted analysis to help inform whether Delhi should open schools. This is set to be presented to the government the week of May 18.

Over the medium term, the government will need **nimble and responsive analytical support** for their ever-evolving decision-making needs. Beyond monitoring systems, IDinsight's broad methodological toolkit and in-house expertise of economists and public health specialists can help answer a range of

[1] Data accessed from https://www.covid19india.org/ on 7 May 2020.

questions facing the government, tapping both context-specific information and evidence from the emerging research around epidemic drivers and mitigation measures.

The engagement between IDinsight and the Delhi Government would be a 12-month Embedded Learning Partnership (ELP). The first phase would be for 3 months and address the government's immediate monitoring systems request, while the second phase would be for 9 months (or more) and respond proactively to the government's evolving data and evidence needs.

ELPs are open-ended, long-term engagements in which an IDinsight team works closely with a partner to address their most pressing evidence needs as they arise using a broad methodological toolkit. The team will include highly skilled and experienced policy and data specialists who can execute evaluations, machine learning predictions, monitoring services (including data pipeline and dashboard creation), data analytics, and more. The Delhi government needs are uniquely suited to an ELP, which only IDinsight has experience designing and implementing with Indian government partners. It is our understanding that there are no other partners supporting the Delhi Government with similar services or partnerships, so there is no risk of duplication of efforts.

FUNDING

[redacted] Given the high impact potential for this work, it has already begun without funding secured. Our team has already been deployed in this effort, and has been embedded in the office of the State Health Society from the week of May 11th. However, we have a limited amount of unrestricted funding with which we can continue this effort.

We are currently sharing this opportunity with select other funders to seek immediate support. However, given that many funders prefer to fund specific workstreams, rather than open-ended engagements, we are hopeful that one of our committed funders, including Givewell, will support this work.

2. IDINSIGHT / EVIDENCE ACTION / UCSF PARTNERSHIP: COVID PANDEMIC RESPONSE AND RESILIENCE INITIATIVE

PROJECT OVERVIEW

Low- and middle-income countries (LMICs) must develop policy playbooks tailored to their realities to prevent widespread devastation from the COVID-19 pandemic. A new global Initiative, led by **IDinsight, Evidence Action, and the University of California San Francisco Institute for Global Health Sciences - Global Health Group (UCSF),** has rapidly mobilized to help countries develop these playbooks. The Initiative seeks catalytic funding + longer-term partnership to fully realize its global impact potential

Here we present **two high impact workstreams within the Initiative** that require short-term funding.

Workstream 1: An IDinsight/Evidence Action collaboration to help Indian states to maintain delivery of essential health services while minimizing COVID-19 health risks. The Department of Health in the State of Uttarakhand (pop: 10.1 million) has requested a 12-18 month engagement and additional states have also shown keen interest. To address these needs, IDinsight will deploy its wide methodological toolkit, including its modeling team described in the previous section.

- **Workstream 2:** An IDinsight-led effort (with support from UCSF/Evidence Action) to work with the Clinton Health Access Initiative (CHAI) Global Diagnostics Team to create COVID-19 testing strategies for several specific countries and for generalized LMIC use.

We believe each of these workstreams will positively impact hundreds of thousands of lives. A third workstream to design a SMS-based symptom tracking approach (rather than smartphone apps, which are impractical for most LMICs with low smart-phone penetration) for COVID-19 surveillance is being assessed for technical feasibility. We will inform GiveWell if our initial desk examination reveals that it is highly promising.

`

WORKSTREAM 1: HELPING INDIA STATE GOVERNMENTS MAINTAIN DELIVERY OF ESSENTIAL HEALTH SERVICES

The COVID-19 pandemic poses serious challenges for health systems worldwide. Increasing demand on health facilities and health system staff has adversely affected efficiency and effectiveness. The Measles and Rubella initiative estimates that 117 million children in 37 countries may miss out on life saving vaccines due to immunization program interruptions.[2] The WHO estimates a worst-case scenario of a doubling of malaria deaths (384,000 additional deaths) due to suspended LLIN distribution and reduced treatment availability[3] and a recent Imperial College model projects for HIV, TB and malaria deaths to

[2] Statement by the Measles & Rubella Initiative: American Red Cross, U.S. CDC, UNICEF, UN Foundation and WHO, ATLANTA/GENEVA/NEW YORK, 14 April 2020, Available here.
[3] See here. Accessed 18 May 2020.

increase up to 10, 20 and 36% respectively over five years.[4] In India, thousands of children are at risk of missing measles, TB, and/or polio vaccines.[5] Key maternal and newborn child health services such as facility deliveries, growth monitoring, diarrhoea treatment / prevention, and IFA supplementation have been severely restricted or deferred.[6] With the monsoon and associated wave of malaria infections imminent, key preventive activities like indoor residual spraying and installing insecticide treated nets face disruptions as staff are redeployed to COVID-19 response and movement is severely restricted. COVID-19-related containment measures have impacted the health supply chains including affecting medical supplies for essential non-COVID health services.

Past pandemics have shown that disruptions in the delivery of essential health services can cause a significant number of preventable deaths. A 2016 study found that a 15% contraction in access to treatment in Guinea likely caused a larger number of indirect deaths from HIV/AIDS, TB, and Malaria than from Ebola - despite Guinea being one of the countries worst-affected by Ebola outbreak.[7] Another study in Sierra Leone found that an estimated 22% decrease in the utilization of life-saving health services during the Ebola outbreak likely resulted in 3600 additional maternal, neonatal and stillbirth deaths in the year 2014-15.[8] **Without swift action, the scenario of preventable mortality / morbidity due to interrupted essential services is imminent.**

We have proposed to a host of India's state governments an effort to prioritize health areas, and design and implement delivery models to prevent interruption of priority areas. The goal is to minimize avoidable mortality and morbidity by linking evidence-informed policy-making with on-ground implementation.

1. **Prioritize health areas and operations to prevent interruption.** IDinsight - in collaboration with Evidence Action - will use its deep, India-specific expertise in public health, economics and data science to create bespoke models that estimate healthcare gains, transmission risks and economic costs associated with different service delivery mechanisms. To maximize efficiency, initial consultations and desk research will be used to prioritize areas for deep investigation. Through this, we will understand the costs and benefits of pursuing select delivery mechanisms. For example, we will be able to estimate net DALYs[9] prevented per rupee under different immunization delivery mechanisms. We may find that while immunization camps are the most cost-effective way to deliver vaccines, the COVID-19 transmission risk associated with large

[4] See here. Accessed 18 May 2020.
[5] Preliminary analysis of government health data available here.
[6] Government of India guidelines on the delivery of essential health services describe strategies to reorganize and integrate service delivery for essential services, and switch to alternative delivery modes (such as telemedicine) where possible.
[7] See Parpia, A. S., Ndeffo-Mbah, M. L., Wenzel, N. S., & Galvani, A. P. (2016). Effects of Response to 2014–2015 Ebola Outbreak on Deaths from Malaria, HIV/AIDS, and Tuberculosis, West Africa. Emerg Infect Dis. 2016;22(3):433-441. Also see Helleringer S, Noymer A. Magnitude of Ebola relative to other causes of death in Liberia, Sierra Leone, and Guinea. Lancet Glob Health. 2015;3:e255–6
[8] See Laura Sochas, Andrew Amos Channon, Sara Nam, Counting indirect crisis-related deaths in the context of a low-resilience health system: the case of maternal and neonatal health during the Ebola epidemic in Sierra Leone, *Health Policy and Planning*, Volume 32, Issue suppl_3, 1 November 2017, Pages iii32–iii39
[9] Disability-adjusted life years

gatherings of susceptible people may countervail their benefits. Through our models, we will be able to estimate the interaction rate, gathering size and participant profile that allows us to optimise immunization delivery.

2. **Health service redesign:** Once we have identified the trade-offs associated with different service delivery models, we will develop alternative mechanisms to deliver essential services with high implementation fidelity within operational and resource constraints. Efforts will focus on the most actionable areas with high impact likelihood in consultation with multiple stakeholders. This includes activities to 1) adjust or integrate existing delivery mechanisms and 2) incubate innovative delivery mechanisms to plug gaps flagged by the epidemiological models. This effort will leverage Evidence Action implementation expertise and Evidence Action / IDinsight stakeholder networks.
3. **Support redesigned delivery model implementation:** Once we have designed optimized delivery mechanisms, we will help the government establish associated implementation protocols that include elements such as training guidelines, coordination structures, supply chain practices, and monitoring systems. Delivery innovations will be piloted to serve proofs of concept for wider adoption. This phase will heavily leverage Evidence Action at-scale implementation expertise.
4. **Monitor implementation to enable implementation pivots and refinements.** Using IDinsight's rapid data collection and analytics expertise, we will lightly monitor the implementation fidelity of these services. Using Evidence Action's technology system expertise, administrative data can also be used to assess initial outcomes and validate epidemiological model parameters. Rigorous experiments (e.g. RCTs) will be considered for delivery interventions with high impact potential, generalizability and operational requirements. All data and evidence will be consistently fed back to state policymakers for continual design and implementation refinement.

Response has been highly enthusiastic at both the state and national levels, with opportunity to engage with any of a wide range of states. **At least one State (Uttarkand) has requested immediate start for 18-24 months of support to not only address COVID-19-related interruptions but also redesign its entire health delivery system**. In the short term, we are preparing to directly support two states (Jharkand and Madhya Pradesh are also possibilities) and produce generalizable resources to enable other governments to address analogous challenges. If successful, analogous support can be provided to many other states and contexts.

WORKSTREAM 2: CREATE COVID-19 NATIONAL DIAGNOSTIC STRATEGIES FOR SPECIFIC COUNTRIES AND GENERALIZED LMIC USE

NOTE: To address urgent needs, this workstream has already started with seed funding and has run for four weeks. Feedback on work quality and importance has been highly encouraging, and stakeholder engagement has been steadily intense and deepening.

An effective COVID-19 testing approach is essential to achieve epidemic control, and such approaches must be urgently established in advance of expected COVID-19 surges for many LMICs in the coming months. Hundreds of millions of dollars will be spent on COVID-19 diagnostics in LMICs over the next 18

months. However, for several reasons, **no effective / cost-effective diagnostic model has been established for LMICs** which risks huge volumes of diagnostic resources being wasted.

- Many LMICs are pursuing approaches based on high-income country (HIC) tactics, such as contact tracing and population sample testing. Unfortunately, IDinsight's in-depth analyses have confirmed that these **HIC tactics are infeasible for the large majority of LMIC settings.**
- **LMICs vary considerably across critical dimensions** including test supplies, health system capacity, and distribution/profile of COVID-19 risk.
- **The supply and performance of COVID-19 diagnostics is highly uncertain and in tremendous flux.** A huge number of new tests are in development worldwide with highly variable / unknown timelines, performance, and operational specifications.

Prior to confirming funding, **we responded to urgent need signaled by the Clinton Health Access Initiative**'s (CHAI's) Diagnostic Services Senior Scientific Director, Trevor Peter, and his associated team to develop tools and guidelines to help LMICs develop tailored national diagnostic strategies. CHAI is managing all global procurement of diagnostics for most LMICs, has $20m from Unitaid to start buying diagnostics, and is closely advising 20 country governments on testing design. Due to these urgent activities, they have lacked the capacity to deeply analyze the optimal diagnostic approaches.

In four weeks, IDinsight has created new tools to craft optimal LMIC diagnostic strategies and conducted in-depth analyses which demonstrate the infeasibility of the predominant contact tracing and population sample testing tactics for LMICs. **We are now at a critical stage** where we will engage policymakers in specific countries (short list countries are India, South Africa, Zimbabwe, and Senegal) to help craft optimal national COVID-19 diagnostic strategies and develop generalizable resources for all LMICs. Several funding sources, including CHAI / CHAI's donors, are being solicited to be able to avoid interruption to this work. However, time is of the essence to be able to establish effective diagnostic strategies in as many settings as possible before new COVID-19 hotspots emerge.

FUNDING

Since parallel fundraising efforts are in process, **we propose for GiveWell funding to be flexible across these two workstreams to ensure GiveWell funding is always additive.** [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

- [redacted]
- [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

APPENDIX

IDINSIGHT COVID-19 TASK FORCE

Our internal COVID-19 Task Force is composed of public health and technical experts who guide our energy towards initiatives that promise maximal impact. The Task Force is selecting and driving relationships with relevant government and NGO partners (including those mentioned above), ensuring that our collaborations are rooted in rigorous public health and epidemiological research.

Dr. Ruth Levine is the incoming CEO of IDinsight, based in San Francisco, USA, guiding the overall strategic direction of IDinsight. She is a development economist with more than three decades of experience working on the design and implementation of policies and programs related to global health and education, social protection, gender equality, and labor markets. Ruth has held previous roles leading the Global Development and Population Program at the William and Flora Hewlett Foundation between 2011 and 2019, overseeing a total of approximately $1 billion in philanthropic grantmaking. She has also held positions at USAID, CGD, IADB, and the World Bank.

Ruth has extensive experience working with governments, researchers, advocates, and service-providing non-governmental organizations in sub-Saharan Africa, South Asia, and Latin America and the Caribbean.

She holds a doctoral degree jointly in economics and demography from Johns Hopkins University, and a B.S. from Cornell University.

Dr. Neil 'Buddy' Shah is the outgoing CEO and Founding Partner of IDinsight, based in San Francisco, USA, guiding the overall strategic direction of IDinsight. He is actively involved in designing and co-leading a number of IDinsight's engagements, including our embedded partnerships with the Government of India, GiveWell, Educate Girls, and others.

Buddy holds an AB in Economics from Harvard University, an MD with special distinction in global health policy from the Albert Einstein College of Medicine, and an MPA in International Development (MPA/ID) from Harvard Kennedy School.

Buddy is a term member of the Council on Foreign Relations and serves as visiting faculty for Harvard Kennedy School's Executive Education program. He has also represented IDinsight as an Echoing Green Fellow, a Rainer Arnhold Fellow, and was one of Forbes' top "30 under 30" social entrepreneurs.

Dr. Alison Connor is the Director of Health at IDinsight, based in Nairobi, Kenya. Alison leads IDinsight's health strategy, identifying new opportunities in the health sector and providing expertise to health projects across all IDinsight offices. Her past projects include a community-based cluster RCT on childhood immunization financial incentives in rural Nigeria, a learning partnership with the government in Ethiopia, and several demand-focused evaluations with the government of Zambia in both health and social protection. Alison holds a BA in Government from Harvard University and a PhD in Global Disease Epidemiology and Control from Johns Hopkins Bloomberg School of Public Health.

Dr. Divya Nair is a Director at IDinsight based in New Delhi, India and leads learning partnerships in Agriculture, Financial Inclusion, Nutrition and Sanitation for the AMAL Unit of the Indian government. Divya holds a PhD in Public Health from the Johns Hopkins Bloomberg School, an MPA from the Princeton's Woodrow Wilson School, and a bachelor's degree from Lady Shri Ram College, New Delhi.

Dr. Heather Lanthorn is an Associate Director at IDinsight, based in Washington, D.C., USA Heather holds a bachelor's degree, cum laude and honors, in Anthropology with minors in Health Policy and Administration and Neuroscience from Wake Forest University. She also holds a Master's in Public Health (department of Health Behavior and Health Education) from the University of Michigan School of Public Health and a Doctorate of Science (health systems track in Global Health and Population department) from the Harvard T.H. Chan School of Public Health.

Dr. Crystal Haijing Huang is an Economist at IDinsight, based in San Francisco, USA. She is the technical lead in designing and executing several impact evaluations and applying mixed methods analytic approaches to inform policy decisions. Her areas of expertise include behavioral economics, health, youth employment, and gender equality, with projects in India and across South-East Asia. Crystal holds a B.A. in Economics from the University of Chicago, an M.A. in International Development and Economics from Yale University and a Ph.D. in Policy Analysis from the Frederick S. Pardee RAND Graduate School.

Dr. Sindy Li is an Economist at IDinsight, based in San Francisco, USA. At IDinsight, she is technical lead on projects measuring preferences of charity beneficiaries, evaluating outcomes for a Development Impact Bond on poverty alleviation in East Africa, a large scale survey on Aadhaar, as well as a randomized control trial and two process evaluations in agriculture and nutrition in Sub-Saharan Africa. Sindy holds a bachelor's degree in Economics from the University of Toronto, and a PhD in economics from Stanford University.

Dr. Alice Redfern is a Manager at IDinsight, based in Nairobi, Kenya. Alice manages the execution of a range of projects at IDinsight in East Africa. She is currently managing an impact evaluation of the use of drones as a medical supply chain intervention in Ghana, and work to develop national diagnostic strategies for COVID. Prior to joining IDinsight, Alice completed her training as a clinical doctor in the UK. Alice holds a BA in Medical Sciences and a BMBCH (Bachelor of Medicine, Bachelor of Surgery) from Oxford University.

Meg Battle is a Senior Manager based in Manila. She leads IDinsight's strategy and growth in the Philippines and Southeast Asia. Her projects include designing a monitoring system for the Philippines Department of Health's regional universal healthcare delivery pilot and two evaluations of school-based hand washing interventions with UNICEF WASH in the Philippines. Meg has a bachelor's degree in Human Development and International Studies from the Boston College Lynch School of Education, and an MPH from the Johns Hopkins Bloomberg School of Public Health, where she was a Sommer Scholar.