The Future Now
For Children Worldwide.

SUDAC Intern.
Conference 2019

Session: BEST practices outside SUDAC

18 October 2019
Who we are

- A philanthropic foundation established in 2003
- Improving the health and wellbeing of children and young people in growing urban environments globally
- Continuing the Botnar family’s philanthropic legacy
- Member of Swiss Foundations.
How the world is changing

By 2030, there will be an estimated 18 million shortfall in health workers
Young people and health risks

One in six of the world’s population are adolescents aged 10 to 19.
The opportunity
Our areas of work

- AI for child health and wellbeing
- Cities fit for children
- Learning and entrepreneurship
Our Areas of Work:

Research

- 28 Projects
- Two stages process
- From 25,000 CHF to 7 mio CHF
BRCCH

Best Solutions for Child Health

ETH Zürich
Applied Health Care for Children

Intelligent Systems for Medical Decision Support

Translational Research from Cellular to Health Control

Uni Basel
UKBB SwissTPH USB

Research Groups
Legal, Ethical, Economic, Health Systems and Capacity Building
Teaching and Training for better Child Health

Supporting Core Technologies and Platforms
Antibiotic over-prescription at primary care level

18 month old child

Lack of clinical guidance

Fever episode

Antibiotic

Lack of diagnostic tools

Poor patient outcome:
- Antibiotic adverse events
- Deterioration of gut flora
- Antibiotic resistance
The right tools in the right place

The goal

A simple point of care tool for effective management of childhood illnesses that combines:

key diagnostics tools & clinical guidance tools
The DYNAMIC project

**ePOCT:** - extended medical content
- new software
- full connection to biosensors and rapid tests

**Validation:**
- 70 health facilities
- 2 semi-urban districts in Tanzania

**Beneficiaries:**
500,000 sick children per year attending primary care facilities

**Dynamic algorithm:**
Through machine-learning and artificial intelligence

**Health system:**
Enhanced M&E, disease surveillance, epidemic detection

**Data sciences:**
High number and variability of data
Digitising the Research Fairness Initiative (RFI)

- Cohred
- One-off Grant
The International Digital Health & AI Research Collaborative

Progress on digital connectivity but access alone is not enough.

By 2030, every adult should have affordable access to digital networks, as well as digitally-enabled financial and health services, as a means to make a substantial contribution to achieving the SDGs.

Recommendation 1a from Report of the UN Secretary-General’s High-level Panel on Digital Cooperation, June 2019
WHO has made digital health a priority

Countries will be reluctant to share their data unless they see real public health benefits and feel that groups that provide data are treated fairly.

There should be a global governance framework for AI in health.

There is a risk that unevaluated apps could end up doing more harm than good.

WHO is committed to making access to and transparency of health data a public good.

The International Digital Health & AI Research Collaborative

Initial concept

- A neutral cross-national platform focused on digital health and AI for health where partners can collaborate through a ‘hubs & spokes’ model to:
  - Develop a common research agenda/launch global collaborations on D/Al for health;
  - Define, develop and share global public goods such as standards and benchmarks for quality of data sets and Al algorithms;
  - Shift focus away from owning and hoarding data/Al to collaborative flow and use;
  - Pool strengths across regions and domains, build human capacity and address as a “brain trust” a range of critical concerns and enablers including technical, legal, human rights, and other governance aspects.
Main value proposition

- Collaborative solutions - data for health, open data, federated learning, reference datasets, testing & evaluation platforms, regulatory sandpits etc. to avoid ‘missed use’ and misuse of data and AI;
- Flexible, inclusive spokes and hubs model that brings dynamic youthful geographies closer for experience sharing and scaling;
- Dynamic feedback loops across emerging data architectures, global health challenges, and governance of technology;
- Leverages strengths of governments, research institutions and businesses by providing a global collaboration platform;
- Hub in Switzerland assures political neutrality & commitment to data protection; CERN inspired joint problem solving & HR development;
- WHO role on research agenda, avoid duplication, ensure equitable & responsible deployment etc.
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