

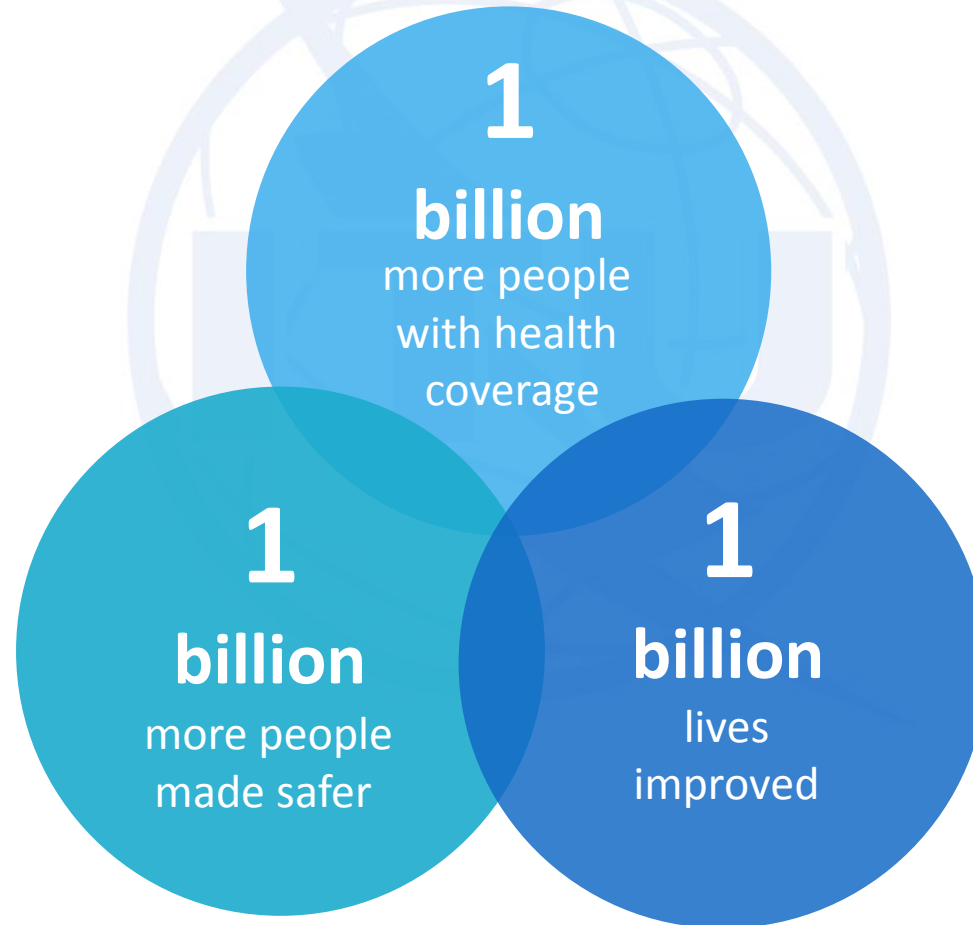


AI for public health

Stories of success and future hopes

Sameer Pujari, Ramesh Krishnamurthy, Natalia Wroblewska
World Health Organization
Ljubljana, 9 July 2018

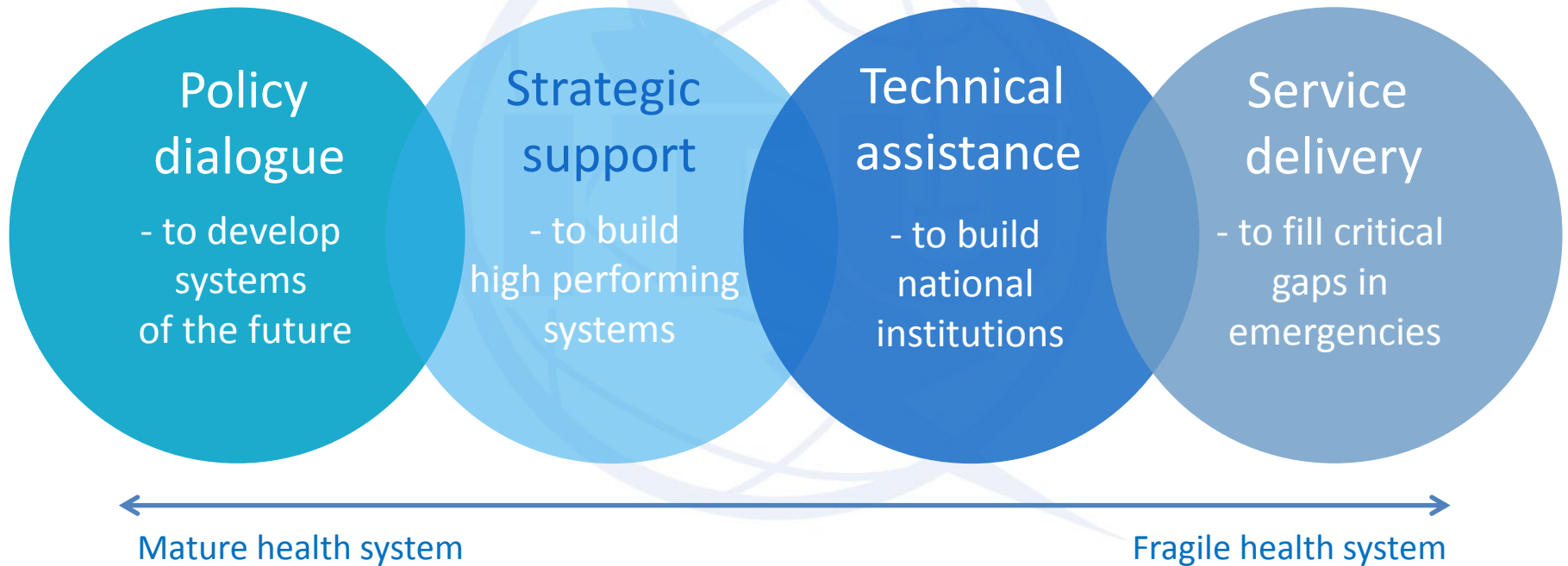
World Health Organization (WHO)



Who we are

- 194 Member States
- Headquarters in Geneva;
- 6 regional offices
- More than 150 country offices
- More than 7 000 staff worldwide
- More than 700 institutions support WHO's work: close partnerships with UN agencies, donors, foundations, academia, nongovernmental organizations and the private sector

What we do



HEALTH IN THE SDG ERA



AI in public health

Application of AI in healthcare is most effective when it helps achieve national health-related SDG goals.

National and sub-national governments are encouraged to have appropriate policy and governance mechanisms to ensure ethical and safe use of Artificial Intelligence (AI) in Healthcare without hindering innovation.

Areas of AI implementation:

Primary care and service delivery, outbreaks and emergency response, risk reduction, health promotion, prevention, education.

Aim of the AI + Health track

- Identify quick-wins areas and types of AI applications that hold high-potential impact on health outcomes and that are feasible and relatively simple to deploy
- Identify bottlenecks and challenges that prevent society from taking full advantage of AI quick-wins in areas such as diagnostic, treatment, prevention or emergency response and how to possibly address those.
- Mobilize community to support a number of proof-of-concepts projects that could demonstrate impact in the short and medium term.
- To make commitment and seek feedback from health community of a global XPrize Challenge to Transform Community Health through AI' (tbc).

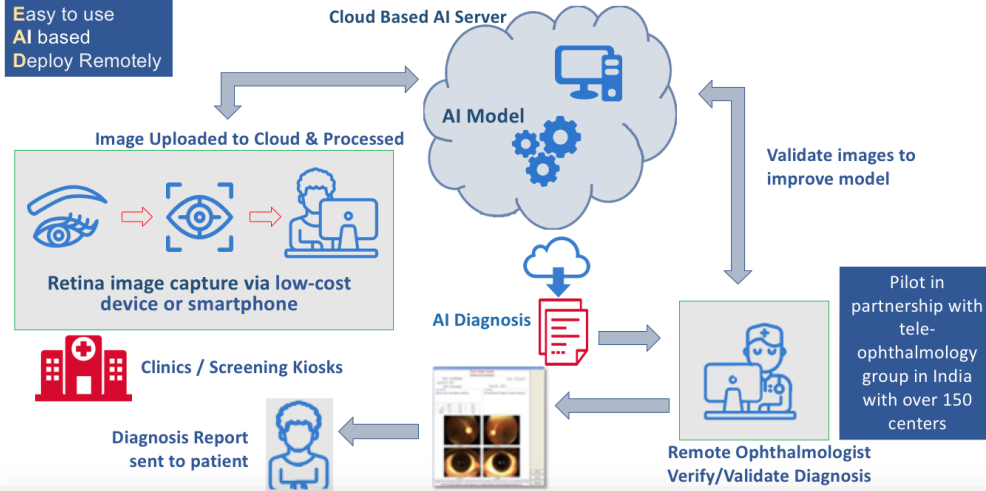


Four work streams

1. AI for primary care and service delivery
2. Outbreaks, Emergency Response and Risk Reduction
3. Health promotion, prevention, and education
4. AI health policy

Overview of Proposed Solution

- Low Cost
- Easy to use
- AI based
- Deploy Remotely



Proposal Pitch

AI to Detect Vision Loss

Category

For profit

Subject

Diabetic Retinopathy (DR), serious eye-disease affecting people

Detection & Diagnosis of DR



Eye Exam by a trained eye-care specialist using Fundus Camera

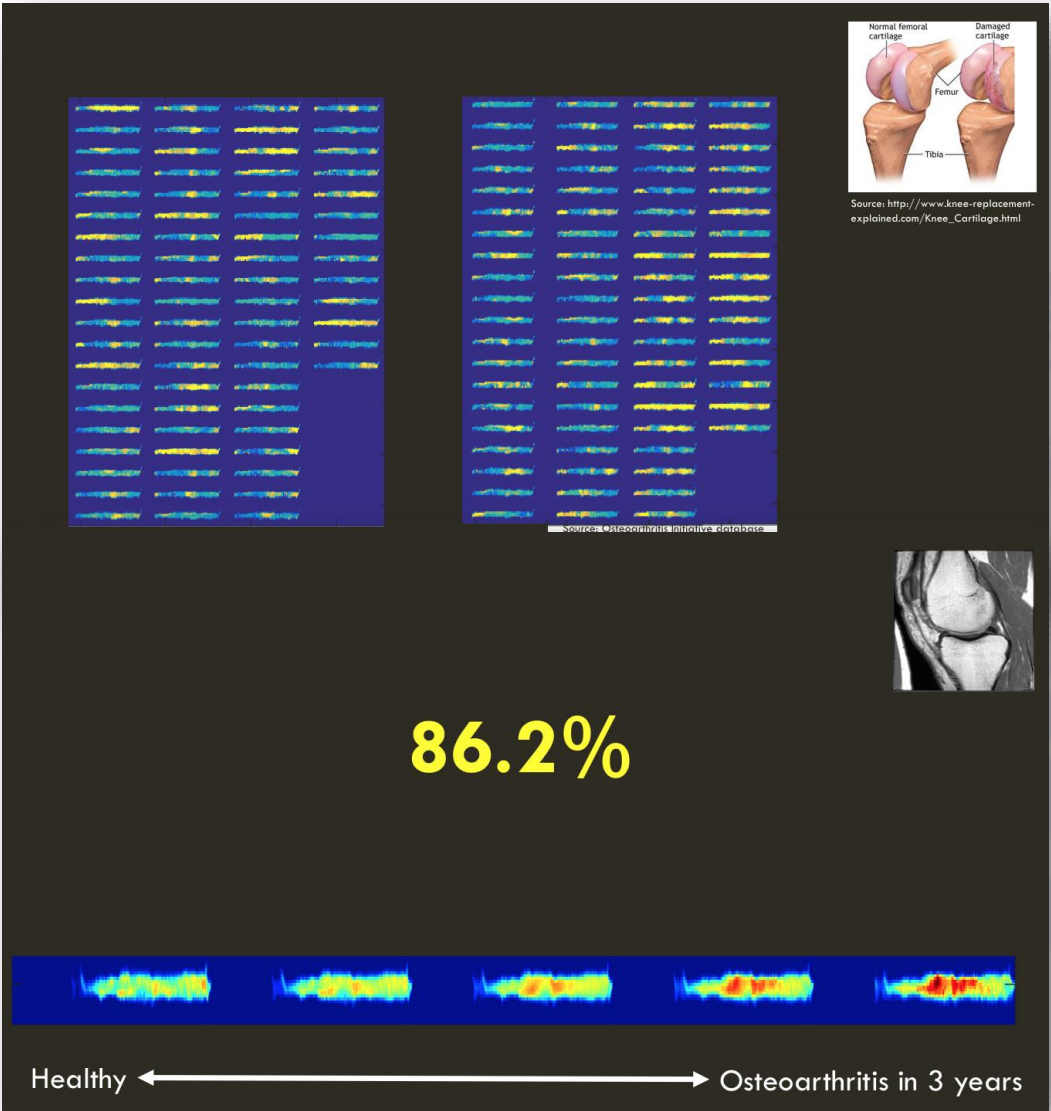


Diagnosis by manual examination of images for DR

001

Credit: Arun Shroff, Co-founder, Medindia.net
AI for Good Summit, 2018.





Proposal Pitch
 AI to Detect Osteoarthritis

Category
 Non-profit

Subject
 Prediction of who will develop osteoarthritis

002

Credit: Shinjini Kundu, University of Pittsburgh Medical Center
 AI for Good Summit, 2018



SOLUTION



Face

Palm

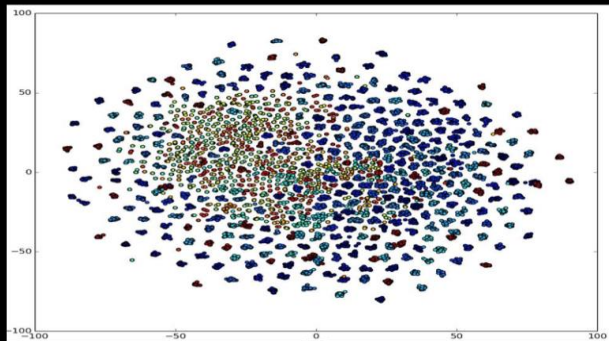
Fingerprints

Infant
Biometrics

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STRONGER SECURITY

**SECURITY ARCHITECTURE: FRAGMENTATION;
NON-REVERSIBLE ABSTRACTION; DECENTRALIZATION**



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Proposal Pitch
AI and Digital Identity

Category
For profit

Subject
Digital Identity

003

Credit: Adam Perold, Co-founder, President and CEO, ELEMENT INC
AI for Good Summit, 2018



AI Focus Group

Objectives:

- To identify standardization and benchmarking opportunities that will enable broad use of AI for health
- To facilitate global dialogue for all aspects on the use of AI for health

Proposed FG on AI + Health

- Many of the pitches in the AI + Health Session have common issues that benefit from a structure to share information, collaborate and deliver on their goals until the next AI Summit 2019. Some of the common issues include:
 - Use case description
 - Data collection, models, quality, etc.
 - Interfaces and architecture
 - Service and Business models
 - Open Source
 - Country deployment
 - Impact evaluation
 - Assessment and validation criteria and Framework
 - Algorithms enhancements

Be He@lthy Be Mobile

BUILD

- Handbooks on how to scale up Digital Health programs
- Country capacity to run sustainable Digital health programs

SCALE

- National Digital Health programs in 10+ countries
- EU Digital Innovation and Knowledge Hub

INNOVATE

- Build innovation channels into governments
- Foster frugal innovation

EU Innovations Hub (2017-2021)

Objectives of the Hub:

- Scale-up mHealth services
- Compile best practices
- Focus innovation around key needs and gaps

Structure:

- Four-year project funded by the Horizon 2020 Program
- Jointly managed by WHO, ITU & European Commission
- National and international experiences solicited



Lets work together

Thanks : Sameer_pujari

