



Utilizing Technology to deliver healthcare to resource constrained  
communities

Innovating for Global Sustainable Development



# Introduction

Primary Healthcare Re-imagined



This presentation will demonstrate:

- WatIF Health Portal's design as a precursor to **AI**
- A proposal for **POC on AI** in primary healthcare for resource constraint community
- Expected outcomes from the POC



# About WatIF Health Portal

It is a multi-platform, High-impact, clinical application, designed for Primary Healthcare in resource constrained communities.

- Positioned as a Precursor to AI
  - Support clinical outcomes for PHC
  - Up-skills Ward Based Outreach Teams
  - Strengthens health systems
  - Supports **UHC** and **SDG3**
- A preconfigured clinical-Knowledge-system with clinical decision support capabilities.
- Has Predictive analytics without machine learning capabilities
- Comes with proprietary IOT devices
- Web Based and Cellphone enabled
- Works **ON** and **OFF-line**
- **HL7** and **DHIS2** Compatible and
- **Highly Scalable** with self supporting tools for users in remote locations



# Use case example from current Pre-Configured Application without Machine Learning Capability

## Blood Pressure Homeostasis

22-Apr-2018

GUIDELINES

CLINICAL MANAGEMENT INFO

Medical Treatment

Lab Investigations

Pregnancy induced hypertension with high risk of developing cardiovascular accident. Has a high mean arterial pressure and normal pulse pressure, uncontrolled with step 2 treatment using Calcium Channel Blocker (CCB) Adalat PA 30 mg (At optimal Dose), Thiazide-like Diuretics (THIZ-L) Natrilix Loxol (At optimal Dose) consider **Labetalol** as a third drug and alter the modifiable risk factors:- Cigarette smoking, Alcohol intake, lack of exercise, and dyslipidemia. **There are clinical Signs of Target Organ Damage with Renal function Stage 3B CKD in association with a very high risk of progressive chronic renal disease.** Recommended target SBP for age and risk, less than 140mmHg and DBP less than 90mmHg

Systolic BP:- 155(mmHg), Diastolic BP:- 92(mmHg), Pulse Pressure:- 63(mmHg), Mean arterial Pressure:- 113.00

## Cholesterol Metabolism

22-Apr-2018

GUIDELINES

CLINICAL MANAGEMENT INFO

Medical Treatment

Lab Investigations

A very high estimated risk of developing **atherosclerotic** cardiovascular disease in a pregnant patient. Not on treatment for dyslipidemia. Her LDL-c is above recommended therapeutic level she is a candidate for high intensity Statins therapy, but now contraindicated due to pregnancy. Consider therapeutic lifestyle changes, use Niacin or Fibrates with periodic lipogram tests. Recommended LDL-c for risk profile should be less than 70mg/dl or less than 1.82mmol/l. There is a High risk triglyceridemia, High risk HDL-c, and Very high risk non-HDL-c, TG/HDL-c ratio in keeping with **insulin resistance**.

HDL-c 0.75mmol/L( 28.96 Mg/dl), LDL-c 3mmol/L(115.83mg/dl), Triglyceride 3.5mmol/L(309.73 mg/dl), Total Cholesterol 5.6mmol/L(216.22mg/dl ), Non HDL-c 4.85mmol/L(187.26mg/dl)



# Current Needs

1. Collaboration with a global AI organization to conduct a joint POC on the use of AI in primary healthcare
2. Use-Case
  - A **high-impact** Integrated care service for **hypertension** and **diabetes** in a resource constrained environment
  - Incorporate machine learning capability to the current application
3. Resources Required
  - Access to device agnostic **IOT** technology
  - Mobilization of partners
  - **Machine Learning Capability**
  - Ability to Handle **Big Data**
  - Strengthen current **HL7** and **DHIS2** compatibility
  - Strengthen current **HIPAA** and **POPI** compliance

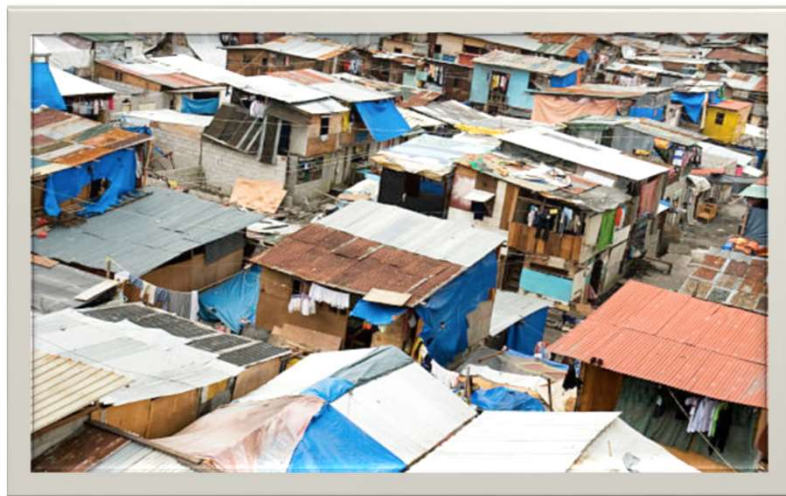


# Expected Outcomes

Demonstrate Improved Access to UHC



Demonstrate Scalability and Fit for Purpose



Demonstrate Strengthening of Health Systems



Demonstrate Improvement in efficiency and Quality of Care



## Better Sooner

Care **better** than we've ever seen before,  
Provide Health **better** than we've ever known,  
At a cost we can all **afford**.  
To Everyone  
Everywhere,  
Every-time !



# Creating Better Future

Rethinking the Last Mile

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