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# Portable Health Clinic

## An Affordable, Usable and Sustainable Telehealth System for Unreached Communities



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# Bangladesh: As a model of the Developing World

◆ 70% people live in rural areas but...

## Poor Healthcare Facilities in Village

- Insufficient hospital and clinic
- Absence of qualified doctors and nurses

### ◆ Solution?

(1) **Telemedicine** with remote doctors from the cities and the **village health workers**

◆ Poor Doctor-Patients Ratio

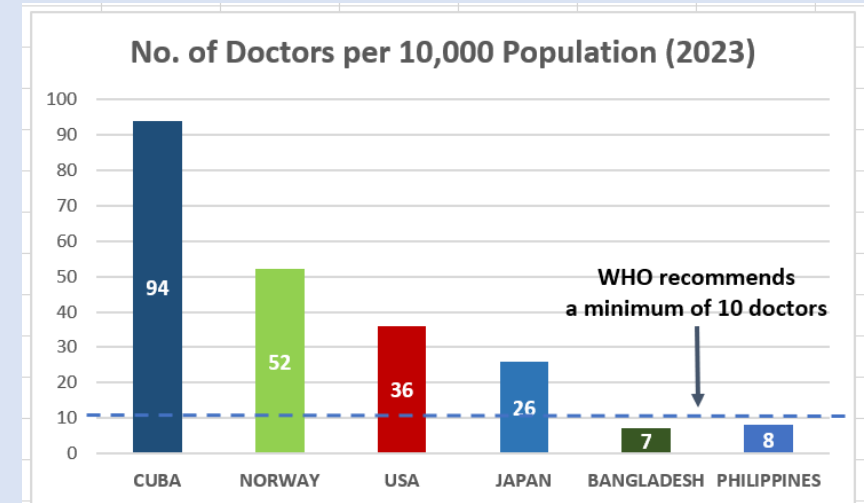
7 doctors and 3 nurses & midwives for 10,000 people

### ◆ Solution?

(2) Reduce number of patients **b** by introducing preventive healthcare



Village Health Sub-Center

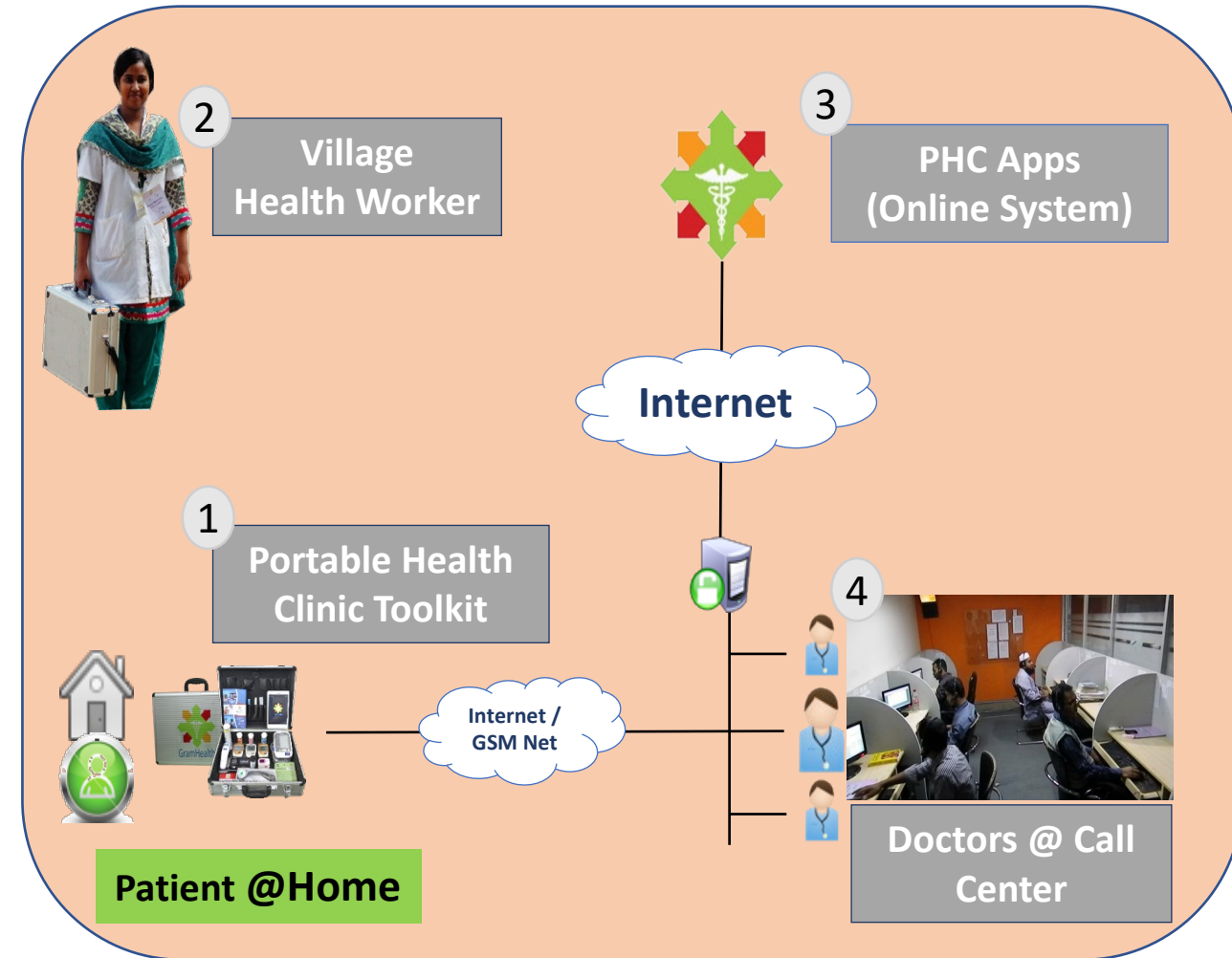


# Portable Health Clinic (PHC)?

It's a **telehealth** system for **unreached** communities with **preventive care** in a **population management** approach.



Basic PHC Module with NCD

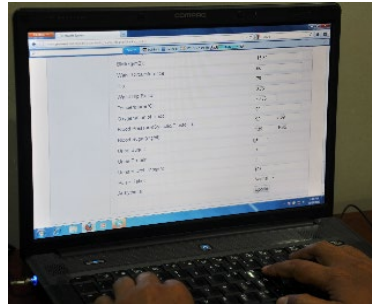


# Portable Health Clinic

Doctor's End  
(Urban Call Center @ Remote City)

Patient's End  
(Remote Service Point @ Village)

2



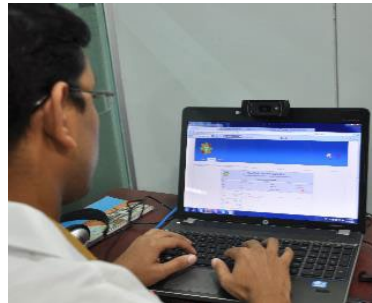
Monitoring by Doctor

3



Remote Consultancy

4



Prescription Writing

Notice Remote Doctor to  
Check Health Data

Start Video Conference

Send Prescription to Printer

1



Health Check-up

5



Prescription Printing

6



Prescription Delivery



# PHC System Application

## Electronic Medical Records (EMR/PHR)



### Portable Health Clinic

An Affordable, Usable and Sustainable Preventive Healthcare System For Unreached People

[Home](#) [Overview](#) [My Panel](#) [Logout](#)

Hi, admin

Health Record

Medical History(Phase1)

Phase1 Repeat

Medical History(Phase2)

New Checkup

New Data Entry

Reg. No:

12023211

Full Name:

S

Age:

75

Sex:


Male

Date	Phase	Height	Weight	BMI	Waist	Hip	W/H Ratio	B. Temp.	SpO2	B.P.	B.G.	B.H.	U.G.	U.P.	U.U.	P.R.	Arr.	Color	Pres.	Edit
2012-10-02 03:18:54	1	156	47.7	19.6	72	80	0.9	97.05	98	215 / 87	7.22	0	+-	-	+-	82	Normal		Print	
2012-12-03 04:49:00	2	156	47.75	19.62	73	81	0.9	96.8	98	191 / 97	7.67	0	-	+	+-	90	Normal		Print	
2013-09-08 14:36:15	1	155	46.9	19.52	76	86	0.88	96.87	99	210 / 96	7.61	0	-	++	+-	79	Normal		Print	

- 1) Body Temperature
- 2) Blood Pressure
- 3) Pulse Rate
- 4) Arrhythmia
- 5) Height, Weight and BMI
- 6) Waist, Hip and W/H Ratio
- 7) Oxygenation of Blood

- 8) Blood Glucose (random)
- 9) Blood Grouping
- 10) Urinary Sugar
- 11) Urinary Protein
- 12) Hemoglobin
- 13) Cholesterol (total)
- 14) Uric Acid

## e-Prescription by Remote Doctor



### GramHealth: Portable Health Clinic

A GramWeb Healthcare Initiative For Unreached Community

#### Health Check-up Report

Name:

Date:

08-09-2013

Age:

75

Reg. No:

12023211

Sex:

Male

Health Status:

Height

155cm

Weight

46.9Kg

BMI

19.52

Waist

76cm

Hip

86cm

Waist-Hip Ratio

0.88

Body Temperature

96.87°F

Oxygenation of Blood

99%

Blood Pressure

210 / 96 mm.Hg

Blood Glucose

7.61 (PBS)

Blood Hemoglobin

0 g/dl

Urinary Glucose

-

Urinary Protein

++

Urinary Urobilinogen

±

Pulse Rate

79

Arrhythmia

Normal

C/C:

Known case of HTN, generalized weakness

Rx

1) Tab. Osartil 25 mg  
১-০-১ বাবার পরে (চপাট)

2) Tab. Fixocard (5/50)  
১-০-১ বাবার পরে (চপাট)

3) Tab. Uromax 0.4 mg  
০-০-১ বাবার পরে (চপাট)

4) Tab. Ranitid 150 mg  
১-০-১ বাবার জায়গা (চপাট)

5) Tab. Joinix plus  
১-০-০ বাবার পরে (২ মাস)

পরামর্শ:

>নিয়মিত ৩০ মিনিট হাটবেন > প্রচুর পরিমাণে পানি খাবেন > কাঁচা লবন খাবেন না > নিয়মিত পরীক্ষা করবেন এবং কার্ডিওপ্যাথিস্ট বিশেষজ্ঞ কে দেখাবেন > USG of whole abdomen special attention to KUB region, s.creatine, ECG

Doctor Name: Dr. Shinthia

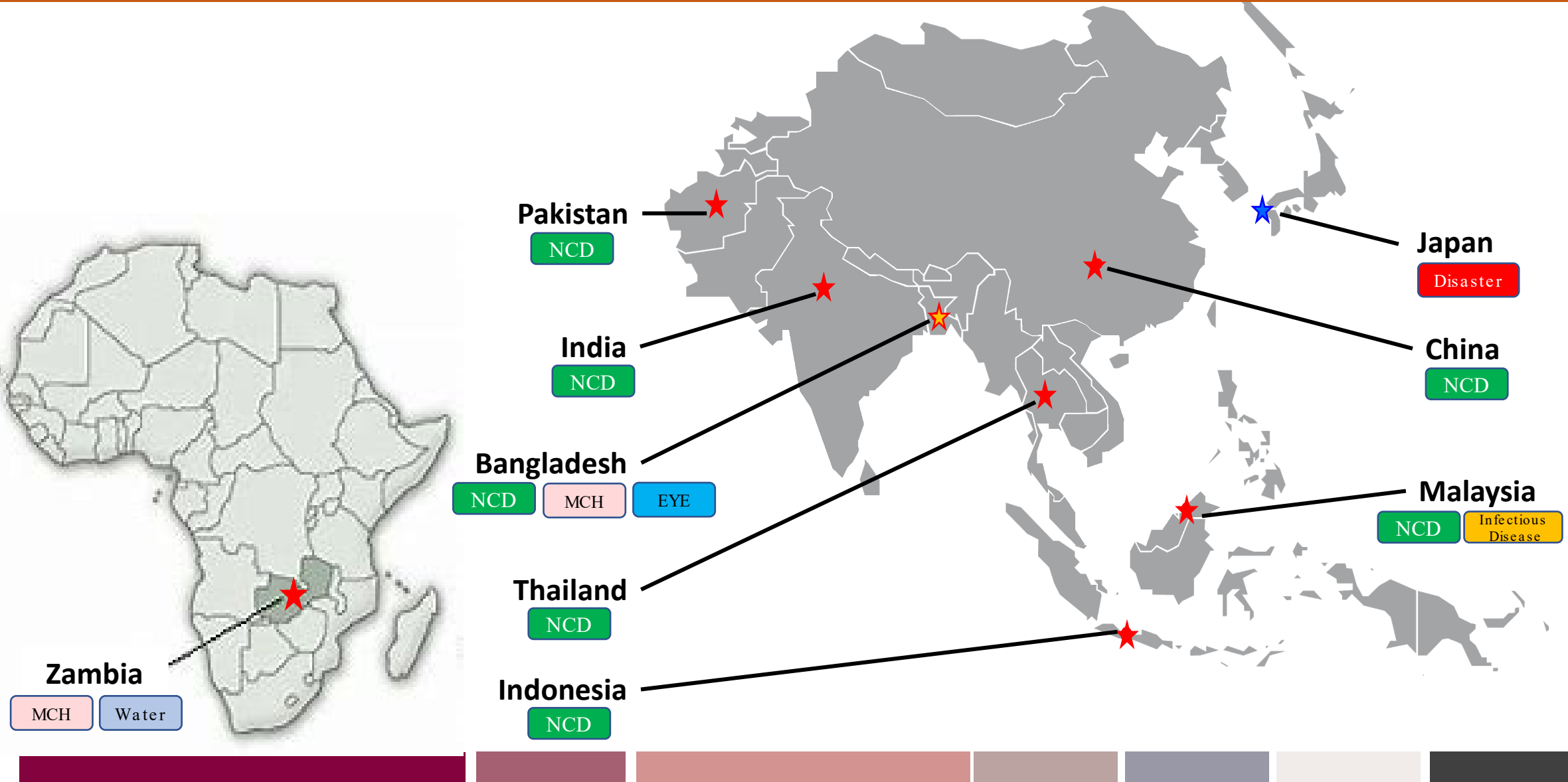
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Cell: 04478-777500 (10AM-8PM)



# Global Expansion of the PHC Services



# Comments

- ◆ PHC is a *cost effective* and *simple technology* telehealth.
- ◆ *Home delivery service* can ensure maximum *participation in healthcare*.
- ◆ The simple technology makes it **easily replicable** to any limited-resource country.



**Thank you very much.**

どうもありがとうございます。

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