mHealth & The Healthy Caribbean Coalition

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What is “Mobile Health” - mHealth

The use of mobile phones or other mobile devices (iPads, tablets etc) for various health care needs:

• Education
• Advocacy
• Monitoring
• Data Collection
• Maintenance
mHealth benefits to the Caribbean

• Low network maintenance

• Remote monitoring in rural areas

• Phones are always on, computers are not

• Carrying a Phone/Tablet is part of a modern lifestyle

• Using a small portable multi-communication computing device is convenient, economical, practical
Why is mHealth an important tool?

Mhealth Solutions are diverse across the Healthcare spectrum

- **Education & Awareness** – SMS/Text Messaging in support of health programs
- **Disease & Emergency Tracking** – Use mobile Devices to send and receive disease incidence
- **Data Collection and Record Access** – There are applications to enter and access patient data
- **Health and Administration Systems** – Allow access to mHealth and Public Health systems
- **Monitoring and Medication Compliance** – Maintain care giving appointments and medication regime
- **Analysis, Diagnosis and Consultation** – Access to staff or information via mobile devices for diagnosis.
You can quit with text2quit

Imagine...
✓ Living smoke free
✓ A personal health coach on your phone
✓ Customized help to overcome cravings

Double your chance of quitting, join now.

Here’s what people are saying...

"I liked that regular reminders are pushed out to me and that I don’t have to pull resources in."

-Carmine B
**Workflow description**

Patients in both the intervention and control groups were given a One Touch Ultra glucose monitor and a mobile phone loaded with an application that allowed them to record their insulin dose, food intake, and activity levels in an electronic patient diary. The mobile application automatically transmitted the glucose self-monitoring results to a remote server with data processing facilities.

**Intervention group**

Once data was received it was transformed into a time series for the previous 24 hours and produced as a colour-coded histogram displaying the results within target ranges during the previous two weeks. Specialist diabetes nurses checked the readings and analyses at least fortnightly via a secure web page for each patient. Nurses called patients to identify concerns and problems and, because patients also had access to their analyses, solutions could be reached collaboratively. Usually, treatment plans encouraged patients to adhere to a multiple insulin injection basal bolus regimen where appropriate.

**Remote monitoring of diabetes type 1 patients**

**United Kingdom**

Proactively managing chronic or long-term health conditions can produce significantly better outcomes for patients – preventing or halting new symptoms and boosting quality of life. For the healthcare system, it helps alleviate the pressure on critical care and in-hospital resources that are required to treat patients whose conditions peak and trough through lack of consistent management.
mHealth solutions for the Caribbean

Benefits include:

• Dealing with epidemics and a shortage of healthcare workers
• NCDs – Preventative and maintenance programs

Opportunities:

• Explosive growth of mobile communications over the past Decade offers a new hope for the promotion of quality healthcare
• Phones offer a management platform for administration and monitoring
• The development of Health Funding Agencies
mHealth in the Caribbean
What do stakeholders want from mHealth?

Health Care Professionals
- To empower their patients and help them manage chronic diseases
- To help them manage patient prescriptions, ensure accuracy and help with patient compliance
- To access instructional information or patient details on-the-go
- To help manage data and make the best use of technology

Patients
- To better manage, understand and track their illnesses

Health Agencies (Government / Non Government)
- Educate populations on diseases
- Track / Acquire Statistical Data
- Advocate / Lobby for awareness on diseases
Benefits of mHealth programs

- Core focus on adherence for patients
- Feedback on quality of care
- Increased focus on interaction with at-risk populations.
- Improved quality of care
- Provides reassurance
- More efficient way to receive health information
- Discrete
- Services can be tailored to fit the population’s needs
- Cost effective
mHealth in the Caribbean
Path of Development

• Select the wireless technology (e.g. Bluetooth, Wi-Fi).
• Choose suitable mobile phone handsets
• Develop specifications for the data capture
• Design and test software to meet the specifications.
• Trial mHealth solutions based on quality of service, health requirements and customer specifications.
Considerations

- User-engagement
- The Caribbean has had limited involvement in design or implementation of mHealth programs
- Concern about technology & concerns about integration and interoperability of mHealth applications
- Technical limitations of users
- Security Concerns
- Workflow modalities
- Processes and procedures around collection, organisation, analysis of data, and how to implement action is needed
Examples of past, current and future projects

- Get The Message - NCD Advocacy Program
- Cervical Cancer – Advocacy and Education Campaign
- Type 1 Diabetes Maintenance Campaign
- Using mobile phones for charitable donations and fund raising