



# Technology Solutions for Stroke Prevention

## Right Care Initiative Leadership Summit

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Center for Information Technology Research in the Interest of Society  
Center for Technology and Aging

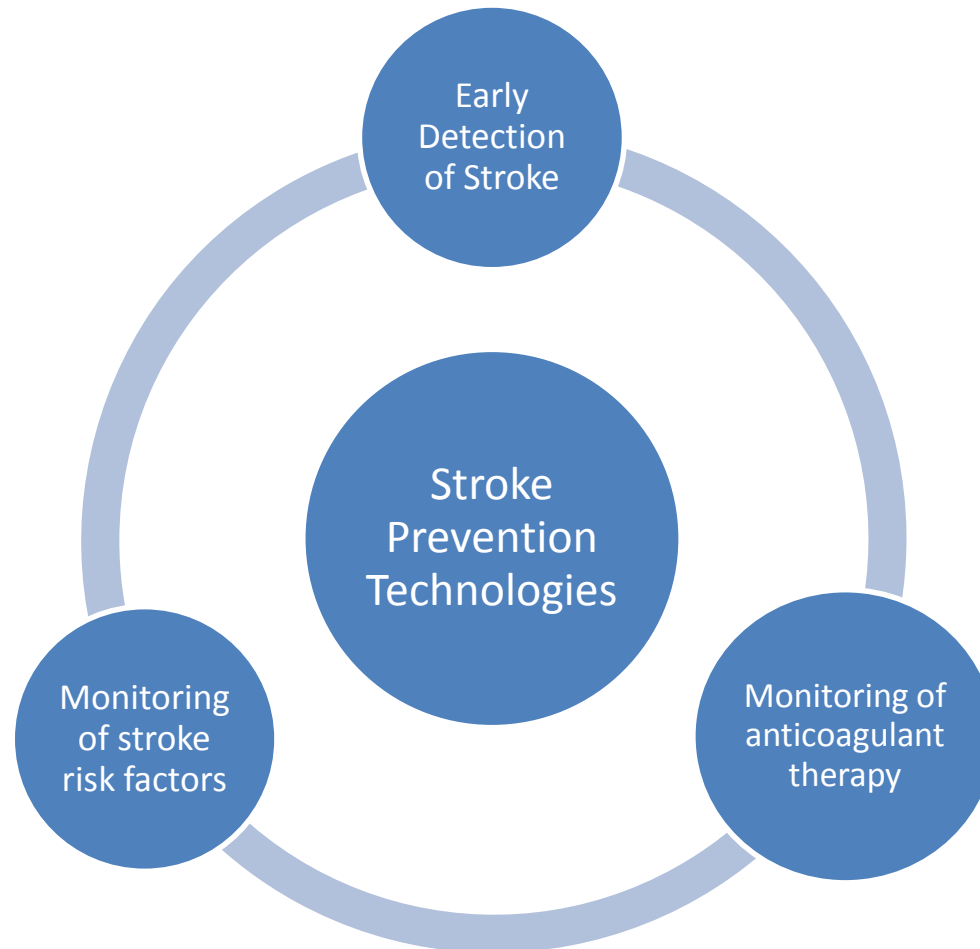
**October 28, 2013**

[www.health.citris-uc.org](http://www.health.citris-uc.org)

[www.techandaging.org](http://www.techandaging.org)



# Stroke Prevention Technologies



# Monitoring of Stroke Risk Factors

## Stroke Risk Factors

- Hypertension
- Type 2 Diabetes
- Smoking
- Obesity
- Lack of Exercise
- Poor Diet

## Technologies to reduce and monitor risk factors

- RPM
- Telehealth
- mHealth texting programs
- Apps
- Activity sensors and platforms



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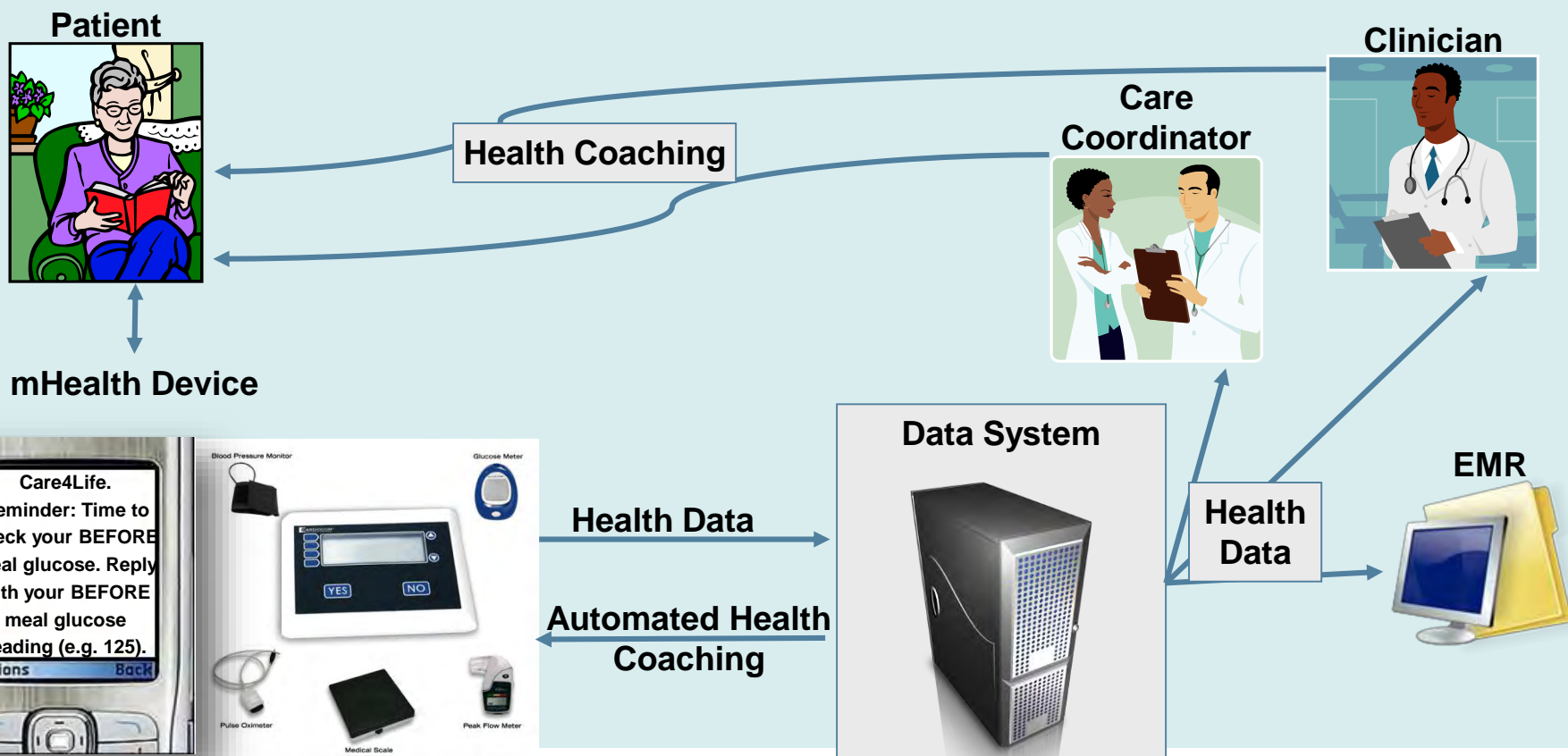


# Toolkit Example –Patient Engagement Materials

*Contributed by Sharp HealthCare, NEHI*

## Technology Enables Patient Engagement

- Use the device and results as the education, confidence building tool
- Regular use of the device creates a ritual for patients to manage their chronic conditions



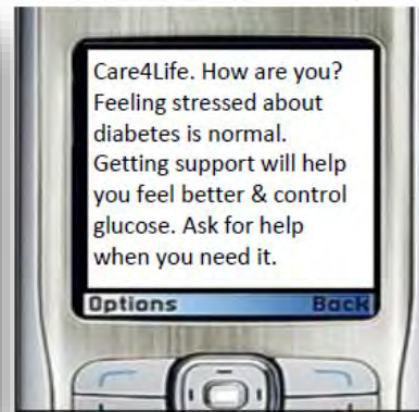
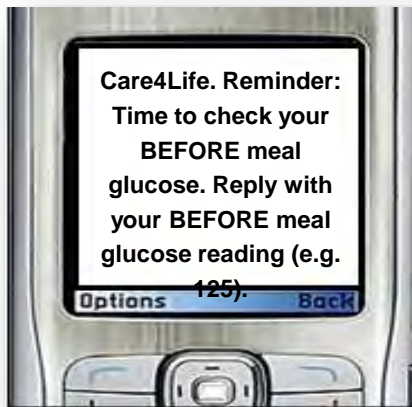


- SMS text messaging system based on national Diabetes education standards
- Algorithm-driven, customized messages related to diabetes education, reminders, and lifestyle coaching (English and Spanish)
- Multi-channel approach
  - Two-way interactive text messaging
  - Personal web portal (optional for participant; provider can use to review progress)

Glucose reminder

System feedback

Education and Tips



# Personal Web Portal



The screenshot shows a user interface for 'Justin's Health at a Glance'. At the top, there is a navigation bar with 'Home', 'Glucose', 'Exercise', 'Weight', 'Medicine', 'Message Center', and 'Change Password'. The main content area is divided into several sections:

- Blood Glucose Readings (Last 30 Days):** Two gauges show 'Last Before Meal Reading' (120 mg/dl) and 'Last After Meal Reading' (277 mg/dl). Below each gauge are recorded low and high values.
- Exercise, Weight, Medicine:** Three progress bars. 'MY EXERCISE' shows 5 days of exercise (8 to 7 times). 'MY WEIGHT' shows 225 lbs of exercise (185 to 205 lbs). 'MY MEDICINE' shows 'Took some' (Took None to Took All).
- Message Settings, Reminders:** A table with columns for MESSAGE SETTINGS, MEDICINE REMINDERS, and APPOINTMENT REMINDERS.

MESSAGE SETTINGS	MEDICINE REMINDERS	APPOINTMENT REMINDERS
Education Messages: OFF	First Reminder: 7:00 am, 03/16/2011	Dr. Smith, 7:00 am
Glucose Reminders: ON	Second Reminder: 12:00 pm, 03/25/2011	Dr. Smith, 12:00 pm
Medication Reminders: OFF	Third Reminder: 5:00 pm, 04/15/2011	Piers Av, 11 am
Personal Goals Reminders: OFF	Fourth Reminder: Not set, 05/19/2011	Dr. Smith, 8 am
	Fifth Reminder: Not set, 06/28/2011	Dr. Smith, 12:00 pm

Glucose Readings

Exercise Progress

Manage Subscriptions

Medication Reminders

Weight Loss Progress

Medication Adherence

Appointment Reminders



# Early Detection of Stroke

## Technologies for Early Detection of Stroke

- Remote diagnostics for cardiologist consultations
- Telemedicine for acute stroke care (EMS, spoke and hub telestroke programs)
- Imaging

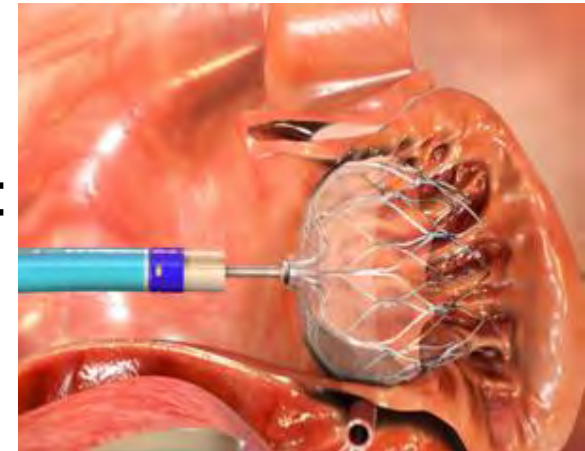




# Monitoring of Anticoagulation Therapy

## Technologies to monitor anticoagulation therapy

- Decision support tools for dose calculations
- IVR
- Home monitoring devices and communication tools
- Apps
- Medical Devices and Surgical Approaches:
  - Lariat
  - Watchman
  - Atriclip



## Additional Resources

CTA Program Impact Report:

[http://www.techandaging.org/CTA\\_Impact\\_Report\\_2013.pdf](http://www.techandaging.org/CTA_Impact_Report_2013.pdf)

The New Era of Connected Aging Brief:

<http://www.techandaging.org/ConnectedAgingFramework.pdf>

mHealth Program Outcomes:

[http://www.techandaging.org/mhealth\\_program\\_page.html](http://www.techandaging.org/mhealth_program_page.html)

ADOPT Toolkit:

<http://toolkit.techandaging.org/>

ROI Tool:

<http://www.telemedroi.com/>



# Thank You!





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