

Dumb Phones, Smart Projects

Utilizing SMS “Text Messages” for Better Health



Garret Spargo

National **T**elehealth **T**echnology **A**ssessment Resource **C**enter

AFRICA

Scale 1:32 000 000

Political Colouring:

British	French
German	Portuguese
Spanish	Italian
Belgian	Turkish

• Ports • Wells • Ruins • Deserts • Springs
• Railway terminations • Canals • Railways
• Highways • Rivers • Canals • Capitals • Cities
• Towns • Villages • Colonies • Capitals • Ports of Call
• Sea level 100 fathoms deep • United States
• over 100 fathoms deep



TTAC
TelehealthTechnology.org

National Telehealth Technology Assessment Resource Center

Total mobile-cellular subscriptions reached almost **6 billion** by end 2011, corresponding to a **global penetration of 86%**.

International Telecommunication Union, 2012

Growth was driven by developing countries, which accounted for more than **80%** of the 660 million **new** mobile-cellular **subscriptions** added in 2011.

International Telecommunication Union, 2012

Global Adoption and Diffusion of Cell Phones

Kas Kalba
2008

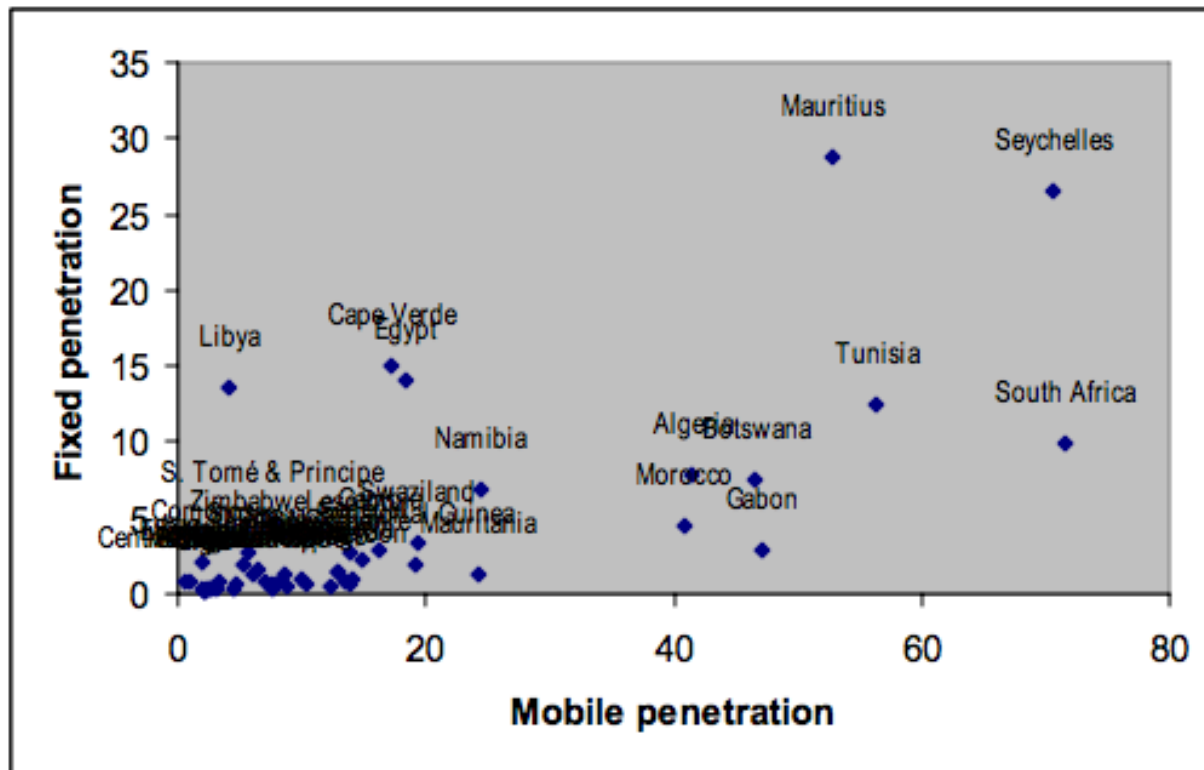


Figure 4-5(a)

Mobile vs. Fixed Penetration in African Markets

Do you yourself have a cell/mobile phone?

Asked of adults in 17 countries in sub-Saharan Africa

	Yes
South Africa	84%
Nigeria	71%
Botswana	62%
Ghana	59%
Kenya	56%
Uganda	52%
Senegal	46%
Zimbabwe	44%
Cameroon	43%
Sierra Leone	37%
Tanzania	35%
Chad	32%
Liberia	22%
Mali	21%
Burkina Faso	19%
Niger	18%
Central African Republic	16%

2010

GALLUP®

*Mobile Phone
Access Varies
Widely in Sub-
Sahara Africa*

Gallup
2010



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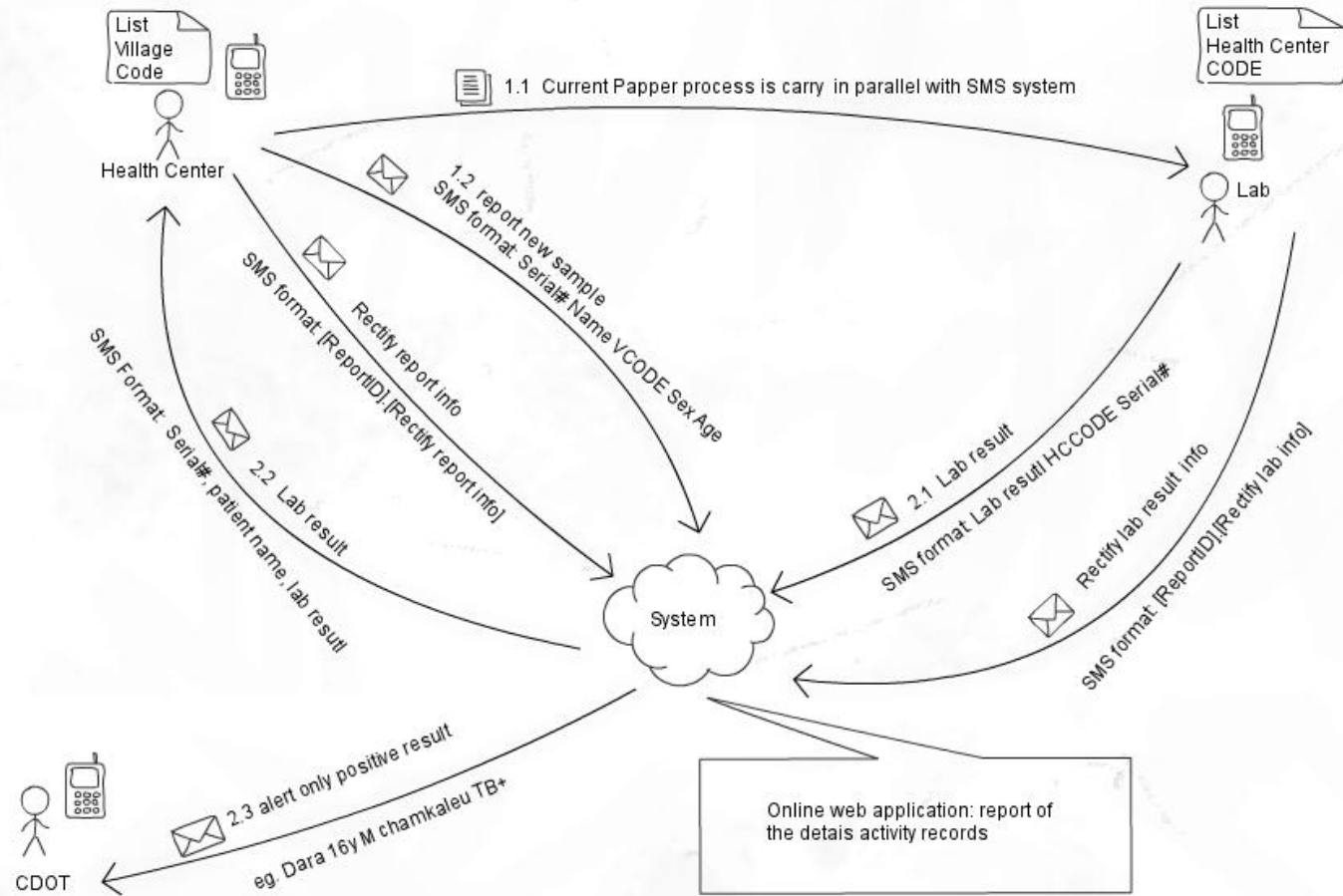
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Who is using it?
How is it done?
Why should I use it?



Who



Who

*Americans and
Their Cell Phones*

Pew Internet
2011

Mobile phones have become a near-ubiquitous tool for information seeking and communicating - **83%** of American adults own some kind of cell phone



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Who

*Americans and
Their Cell Phones*

Pew Internet
2011

Text messaging and picture taking are the most common uses of cell phones outside of voice calls.



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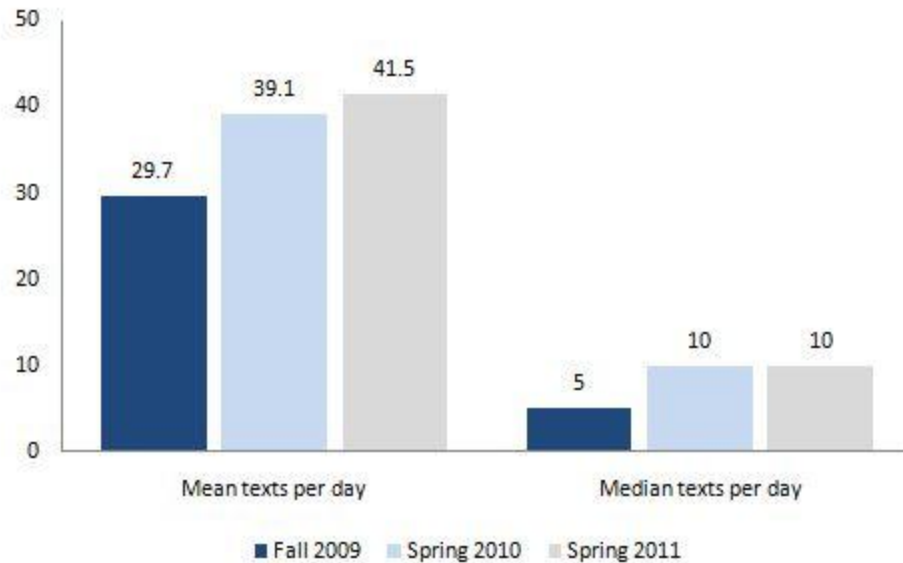
Who

How Americans Use Text Messaging

Pew Internet 2011

Number of texts sent/received per day, 2009-2011

Based on adults who use text messaging on their cell phones



Source: The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. n=2,277 adult internet users ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish. *May 2010 data is for English-speaking Hispanics only.

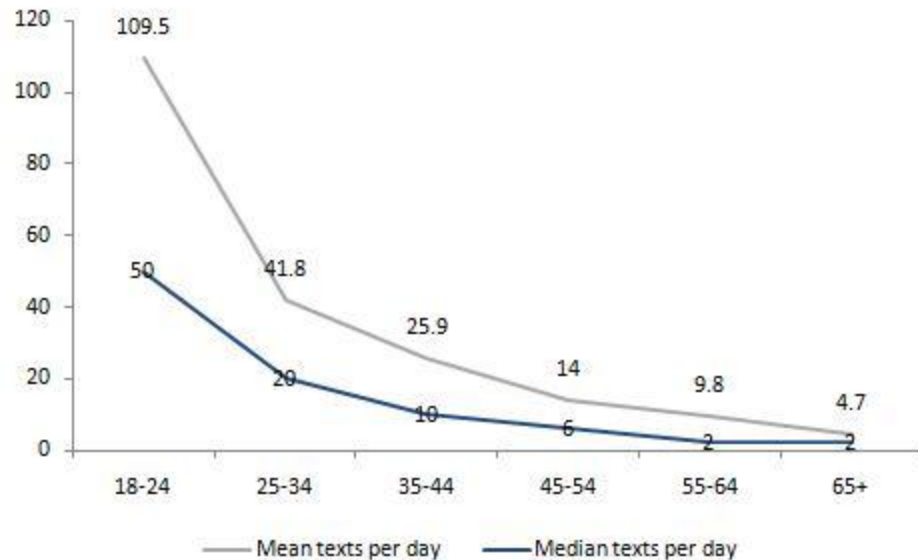
Who

How Americans Use Text Messaging

Pew Internet 2011

Number of texts sent/received per day, by age group

Based on adults who use text messaging on their cell phones



Source: The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. n=2,277 adult internet users ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish.

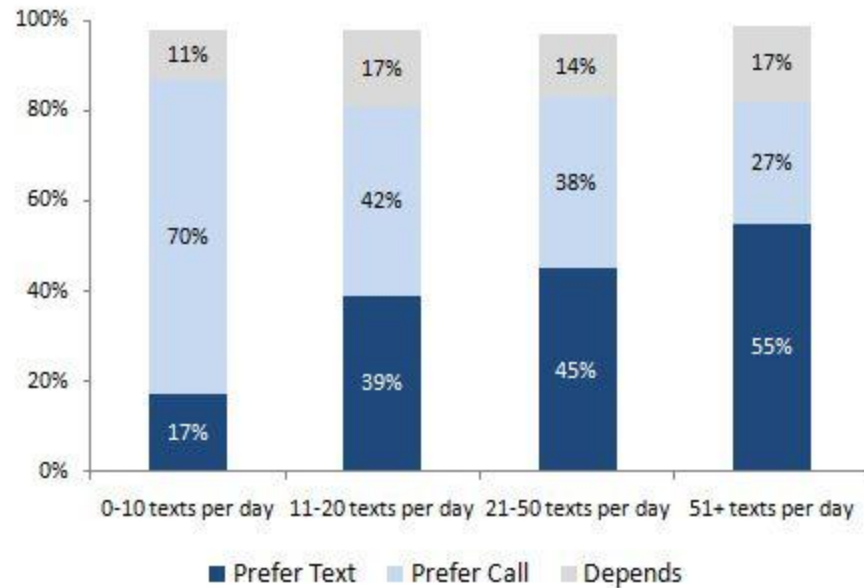
Who

How Americans Use Text Messaging

Pew Internet 2011

Preferred contact method, by number of texts sent/received per day

Based on adult cell phone owners who use text messaging



Source: The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. n=2,277 adult internet users ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish.

Who

How Americans Use Text Messaging

Pew Internet
2011

of text messages sent/received per day by different groups

Based on cell owners who use text messaging

	Mean	Median
All text messaging users	41.5	10
Gender		
Men	40.9	10
Women	42.0	15
Age		
18-29	87.7	40
30-49	27.0	10
50-64	11.4	3
65+	4.7	2
Race/Ethnicity		
White, non-Hispanic	31.2	10
Black, non-Hispanic	70.1	20
Hispanic	48.9	20
Household Income		
Less than \$30,000	58.7	20
\$30,000-\$49,999	40.2	15
\$50,000-\$74,999	25.9	10
\$75,000+	31.9	10
Education level		
Less than high school	69.4	20
High School diploma	45.4	15
Some College	53.0	15
College+	23.8	10

Source: The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. n=2,277 adult internet users ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish.

Who

*Cellular Telecom.
Industry Association*

ctia.org
2011

It takes **90 minutes** for
the average person to
respond to an email

[...]

It takes **90 seconds** for
the average person to
respond to a text



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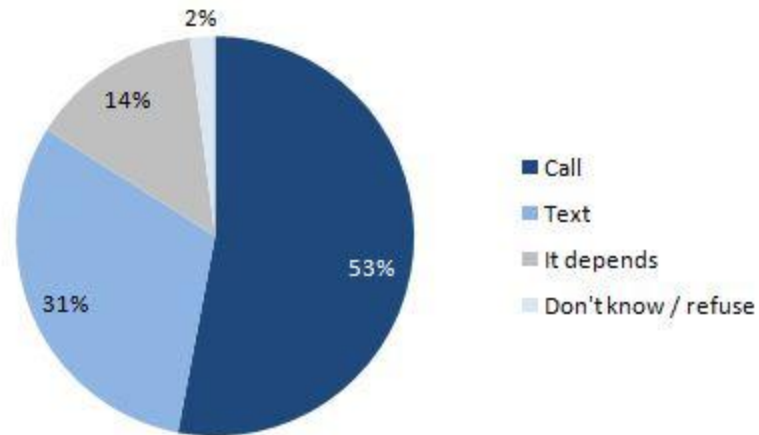
Who

How Americans Use Text Messaging

Pew Internet 2011

How cell owners prefer to be contacted

Based on adult cell phone owners who use text messaging



Source: The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. n=2,277 adult internet users ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish.

How



How

Learning your ABCs:

**Short
Message
Service**

How

Learning your ABCs:

Multimedia
Messaging
Service

How

Learning your ABCs:

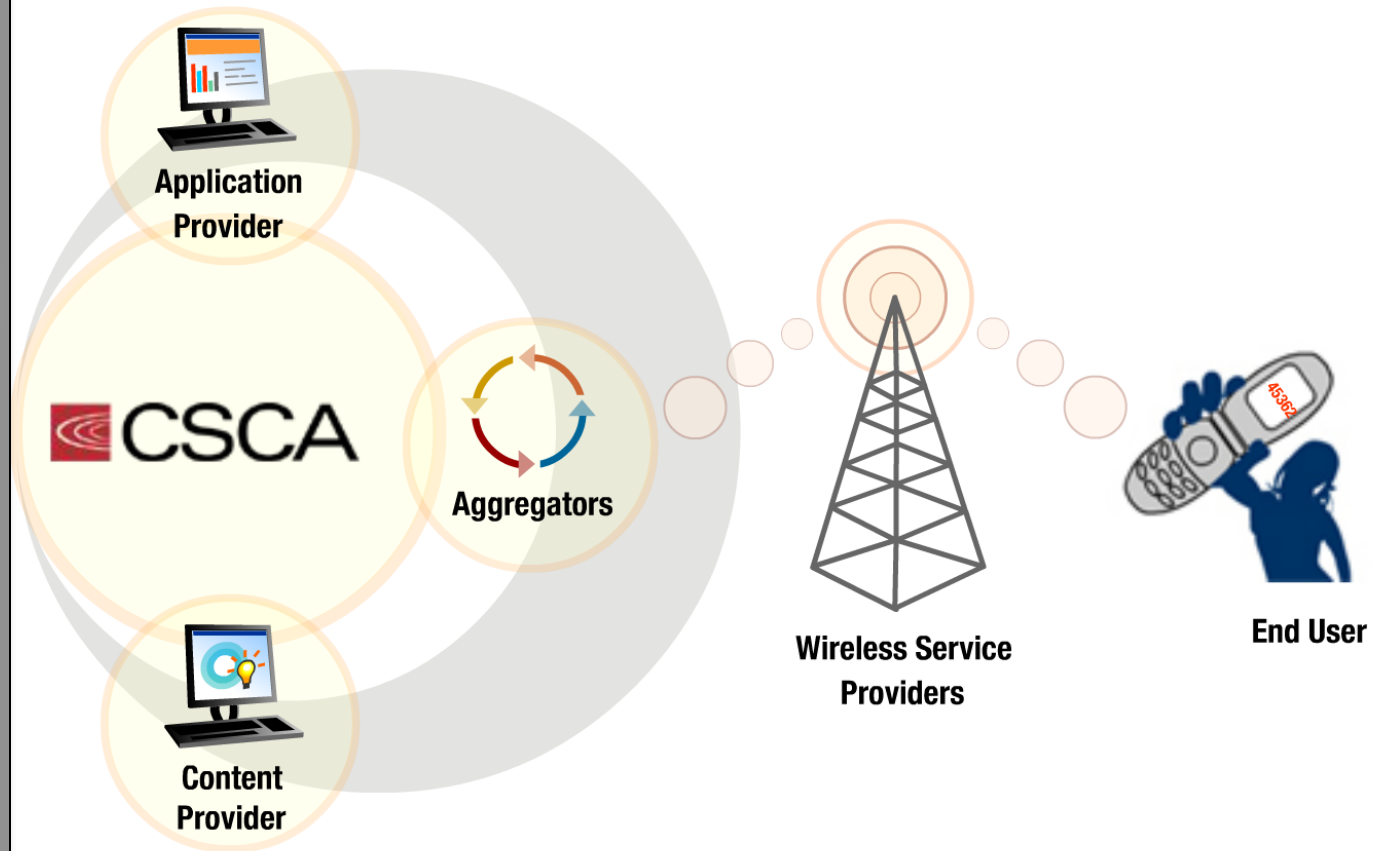
Common
Short
Code

How

Learning your CSCs:

5- or 6-digit number Keywords

How



How

Most application providers are specialists in a specific type of application, such as voting/polling, marketing, or gaming.

How



How

Connection aggregators let application providers obtain connectivity to wireless service providers' networks so that a message can be routed from the network to their application

How

Tier 1 - National Mobile Media Connection
Aggregators support carrier grade SMS & MMS capability.



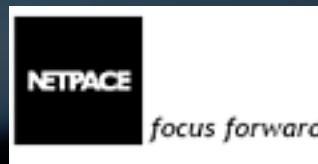
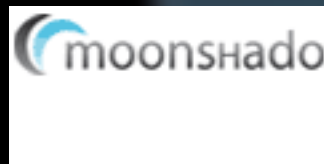
How

Tier 2 - National Text
Message Connection
Aggregators support
carrier grade SMS
capability.

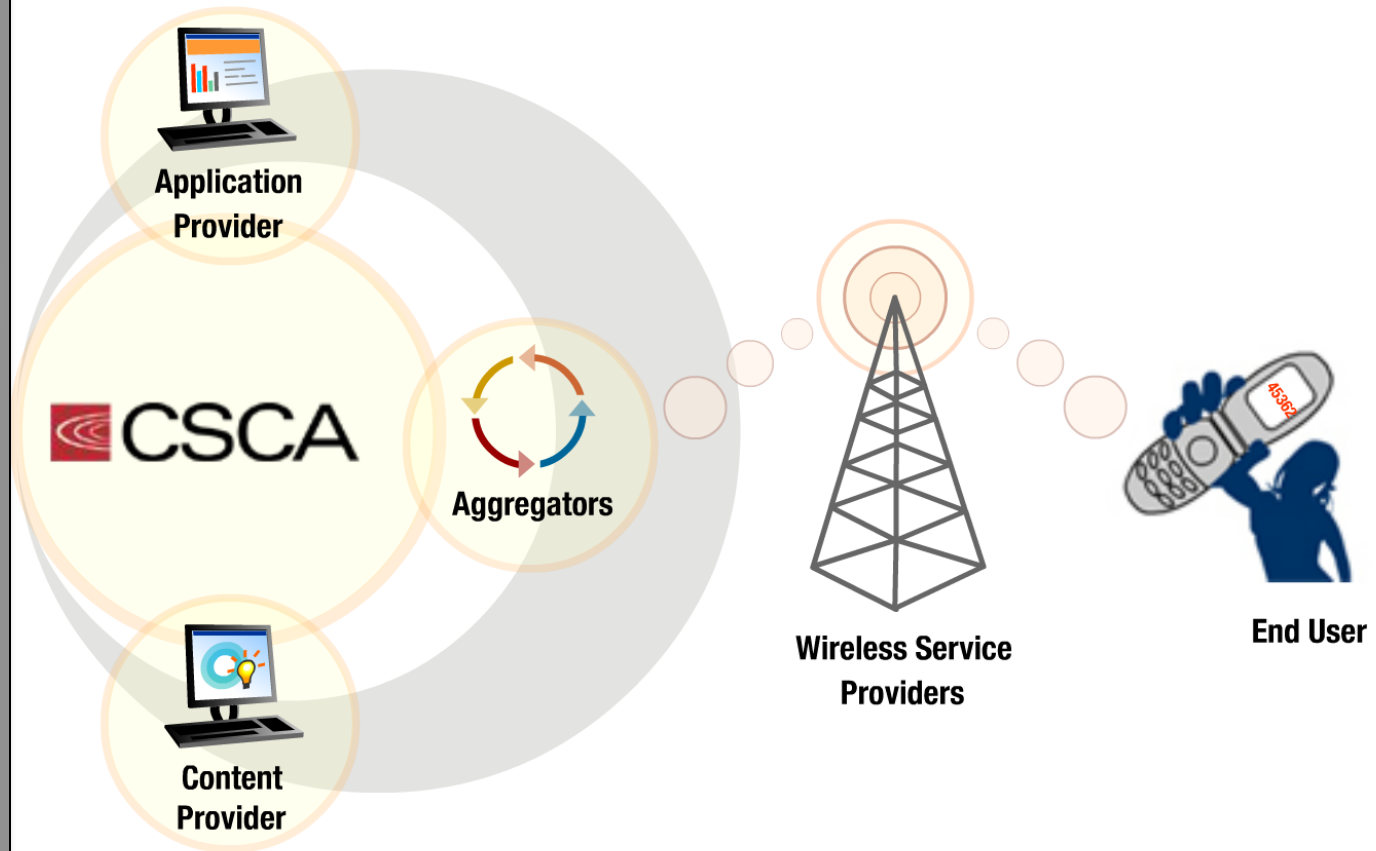


How

Tier 3 – Connection
aggregate resellers
mark up aggregator
messaging rates and
payouts



How



How

Spread the word! Tell friends & family to text 4HEALTH to 313131 for health msgs & impt health tips. Visit www.iknowmine.org 4 more info.

Phone Number

(e.g. 2223334444 no dots)

First Name

Last Name

Join Now

Msg&data rates may apply. To unsubscribe, text **STOP** to 313131 . For help text **HELP** anytime. Available in USA. Your privacy is always protected and your information will not be shared.

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How



How

Informational
Direct Messaging
Web Signup
Scheduled Messages
Competitions
Coupons
Subscriptions
Questions

How

Informational

Direct Messaging

Web

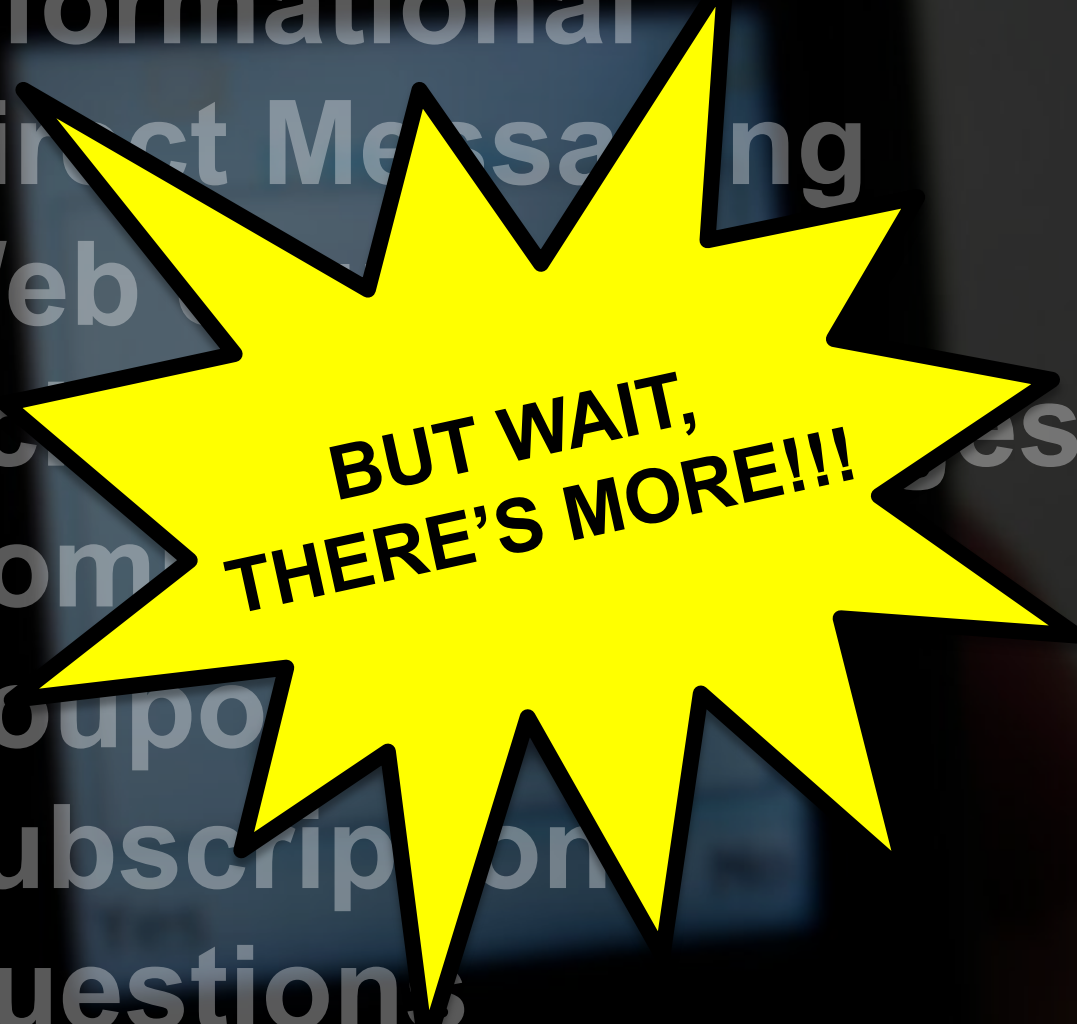
Search

Com

Coupo

Subscription

Questions



Why



Why

Communication Practices for Pediatric Immunization Information: Physician Perceptions of Parent Health Literacy Skills

Amy Chesser, et al
2012

Physician Reported Methods for Reminders

Comm. Channel for Immunization Reminders	%
Verbally at office visit	98.9
Handout or appointment card at visit	64.4
Postcard / Mailing	12.2
Phone Calls	25.6
E-mail	---
Text Message	---
Other	2.2

Why

*Delivering
Laboratory Results
by Text Message
and E-Mail: A
Survey of Factors
Associated with
Conceptual Ability
Among STD Clinic
Attendees*

Avnish Tripathi, et al
2012

... receiving STD
laboratory results
electronically **may**
facilitate test result
delivery to patients and
expedite treatment of
infected individuals.

Why

*Improving
Communication with
Low-Income Women
Using Today's
Technology*

Nancy Cibulka, et al
2012

... they are especially **promising** tools for communicating with traditionally **hard-to-reach populations** such as teens, young adults, and those of low socioeconomic status.

Why

A Solution for Delay and Survival in Bladder Cancer: the Use of Reminder Text Messages

Yasar Bozkurt, et al
2012

... using **SMS reminders** for patient follow up is **important in reducing appointment non-attendance.**

Why

*Mobile Therapy:
Use of Text-
Messaging in the
Treatment of Bulimia
Nervosa*

Yasar Bozkurt, et al
2010

... acceptable for providing support, effecting behavior change, maintaining treatment gains in diabetes, asthma, smoking cessation, and monitoring targeted behaviors associated with obesity in children.

Why

*Mobile Therapy:
Use of Text-
Messaging in the
Treatment of Bulimia
Nervosa*

Yasar Bozkurt, et al
2010

... number of binge
and purging episodes
as well as **symptoms** of
depression, eating
disorder, and night
eating **decreased**
significantly from
baseline to both post-
treatment and follow-
up.



SMS is not “smart”

Policies and procedures

Ethical considerations




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Wilfraco

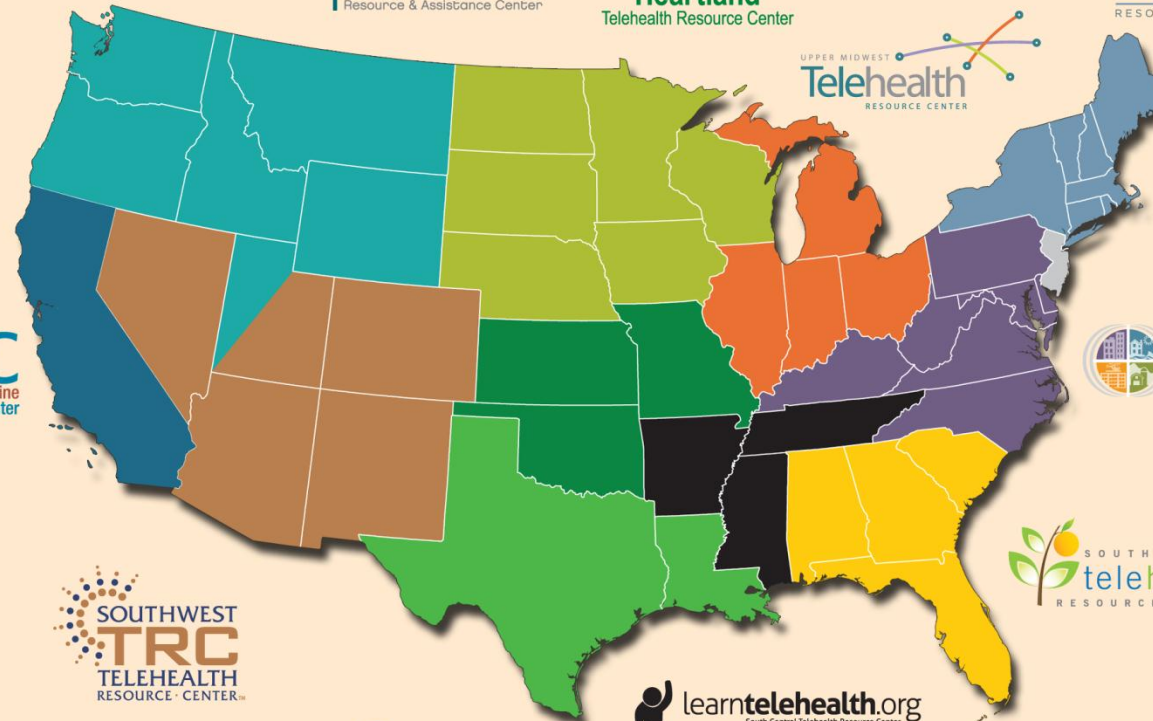


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TelehealthResourceCenters.org



NRTRC	gpTRAC	NETRC
CTRC	HTRC	UMTRC
SWTRC	SCTRC	MATRC
PBTRC	TexLa	SETRC

2 National Resource Centers

12 Regional Resource Centers

The National **T**elehealth **T**echnology **A**ssessment Resource **C**enter aims to create better-informed consumers of telehealth technology. By offering a variety of services in the area of technology assessment, the TTAC (pronounced “tea-tac”) aims to become the place for answers to questions about selecting appropriate technologies for your telehealth program.



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