

The Profound Opportunity In Patient Focused Digital Innovation

Wendy Sue Swanson, MD, MBE, FAAP
Pediatrician, Chief Medical Officer, Author, Advocate



@wendysueswanson

NRC Health Symposium | Understanding in focus | #NRCSymp

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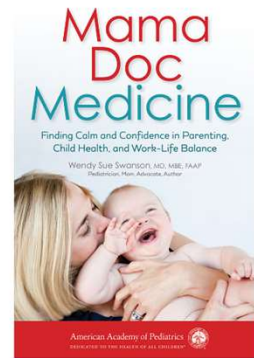
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Wendy Sue Swanson, MD, MBE, FAAP

Mom, Pediatrician, Author, Advocate

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www.wendysueswanson.com



— *Prevention, Pediatrics, Technology & Innovation* —



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Today's Talk Track

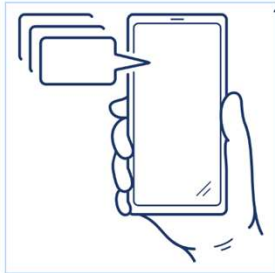
- Social Media Might Matter
- Disruptive Digital Technology
- Entrepreneurism In A Hospital
- Creating Change, Enduring Failure, No Funding, and Finding Hope



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1/5 use online messaging with their doctor



47% want to be able to do it more

56% monitor their health with at least one digital tool

2/3 want technology to play a bigger role in sharing real-time information with their physician

ResMed Survey, Future-of-Connected-Care, Oct. 2019

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cre•ate /krē'āt/
form out of nothing



6

WendySueSwanson MD
@wendysueswanson

The practice of medicine is being dismantled & reassembled out of necessity w pt-facing, convenient digital care, massive use of telemedicine, less state-by-state restriction. We cannot go back when we return to more routine. Easier, at-home access to data & care teams forever

1:39 PM · Mar 25, 2020 · [Twitter Web App](#)

View Tweet activity

31 Retweets 153 Likes

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**Social Media, False News,
Translation & Relevance**

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Have you seen anything that you considered to be false information about coronavirus in your social media feed(s)? *(among social media users only)*



1,960 responses, weighted by U.S. Census (13+)
© CivicScience 2020



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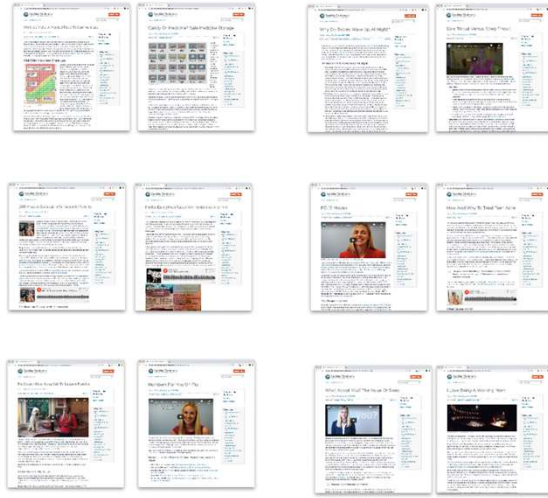
Confusing.
experience
for expertise

10

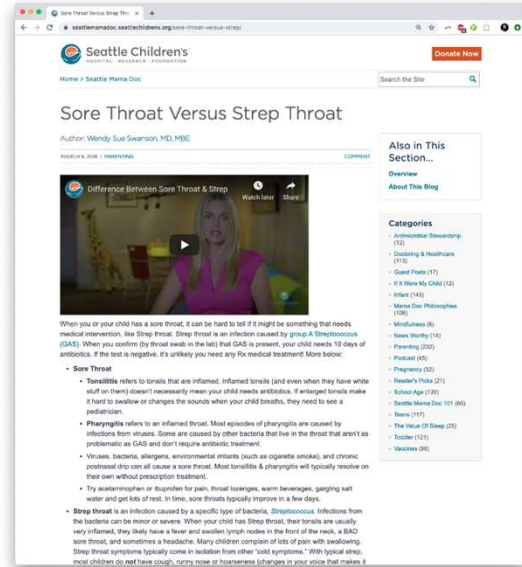
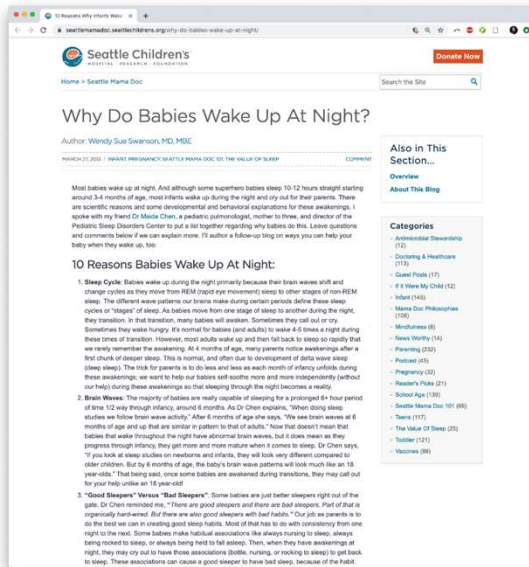
Seattle Mama Doc: Blog

2009-2019

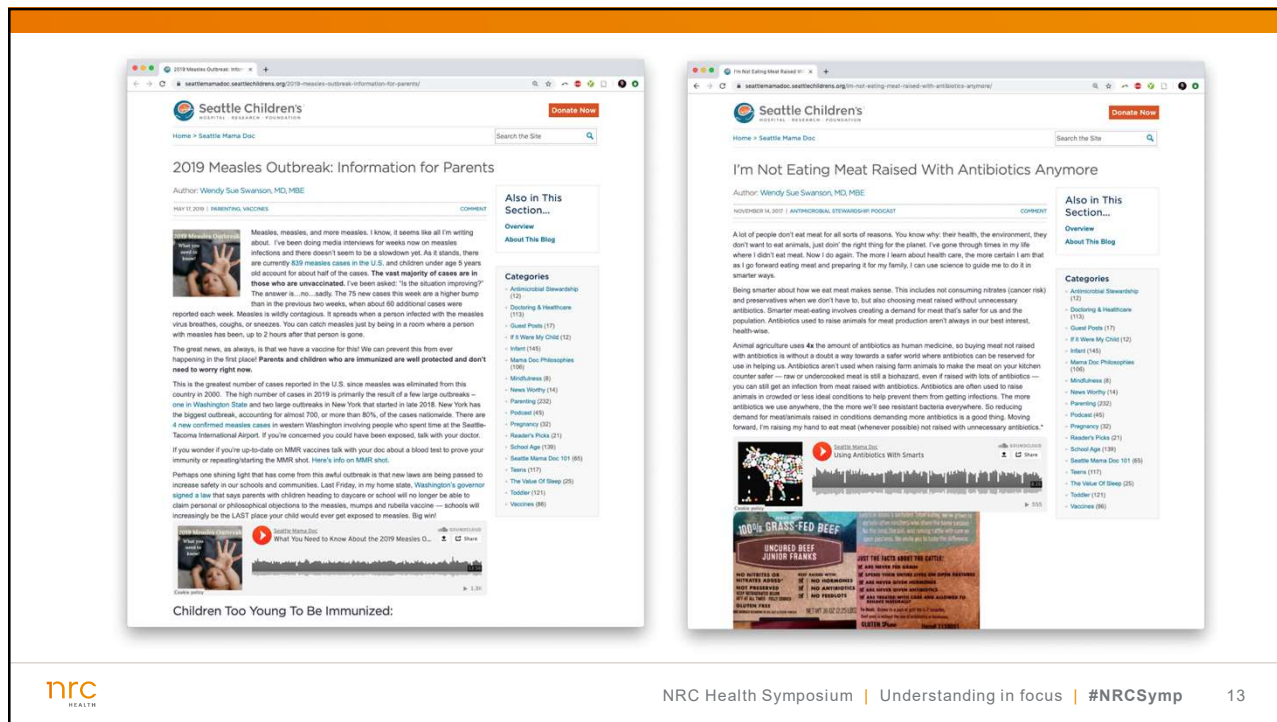
800 posts



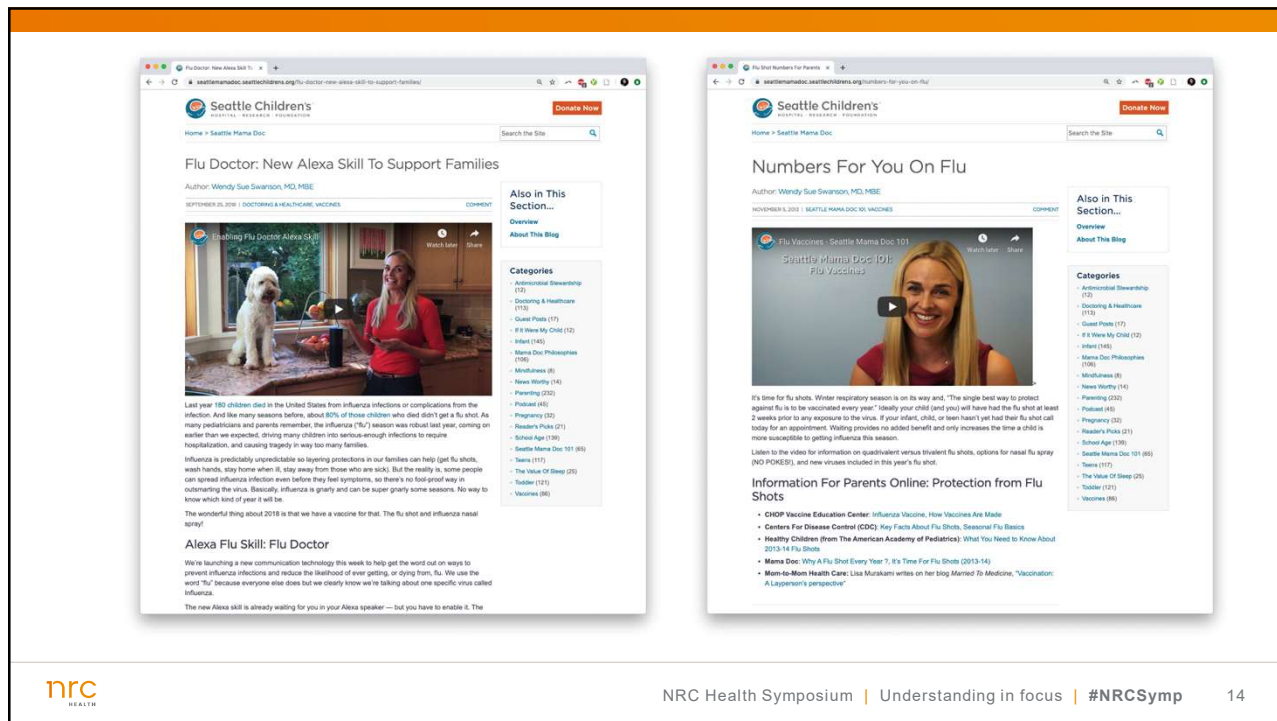
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Toddler Sleep: 4 Reasons Toddlers Wake Up At Night

Author: Wendy Sue Swanson, MD, MBE

PUBLISHED FEBRUARY 28, 2012 IN: GUEST POSTS, READERS PICKS, TODDLER

Tags: Dr Craig Canaper, preschoolers, sleep, sleep challenges, sleep waking, toddlers

44 Tweets | 242 Likes | 242 Shares | Print this Article

Why does my toddler wake up at night?

Every parents has experienced the dreaded 2 AM call. You hear your little one stirring on the monitor. Either you wait, fingers crossed, to see if they go back to sleep and they don't, or you run in there as fast as you can to stuff the pacifier in their mouth before they really wake up. Most babies are capable of sustained sleep (6-8 hours in a row) at night by age six months. If you are nursing your child, it may take them a bit longer to achieve this. I think that it is reasonable that every child should sleep through

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Seattle Mama Doc™

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Top Active Pages:

Active Page	Active Users
1. /toddler-sleep-4-reasons-...ers-wake-up-at-night/amp/	11 20.75%
2. /using-melatonin-to-help-children-fall-asleep/amp/	10 18.87%
3. /why-do-babies-wake-up-at-night/amp/	5 9.43%
4. /using-melatonin-to-help-children-fall-asleep/	4 7.55%
5. /infant-crying-colic-and-...od-of-purple-crying/amp/	3 5.66%
6. /toddler-sleep-4-reasons-...odders-wake-up-at-night/	3 5.66%
7. /2017-flu-season/amp/	2 3.77%
8. /infant-crying-colic-and-...period-of-purple-crying/	2 3.77%
9. /2017-flu-season/	1 1.89%
10. /7-truths-about-the-stomach-flu/	1 1.89%

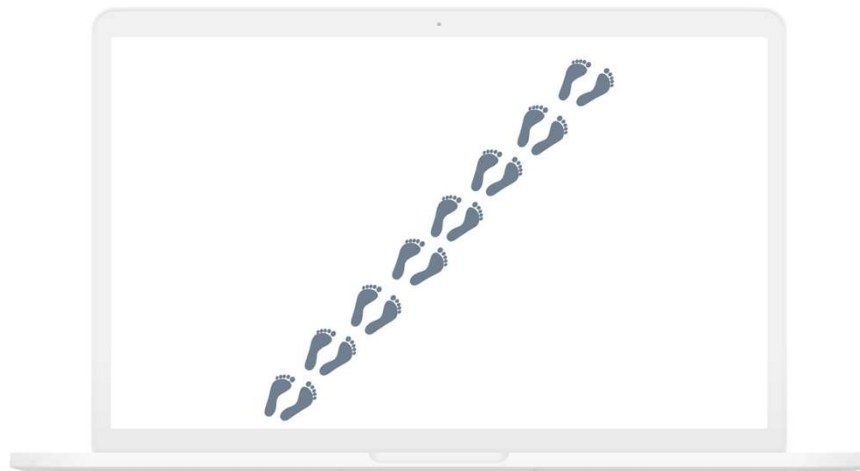
Top Locations:

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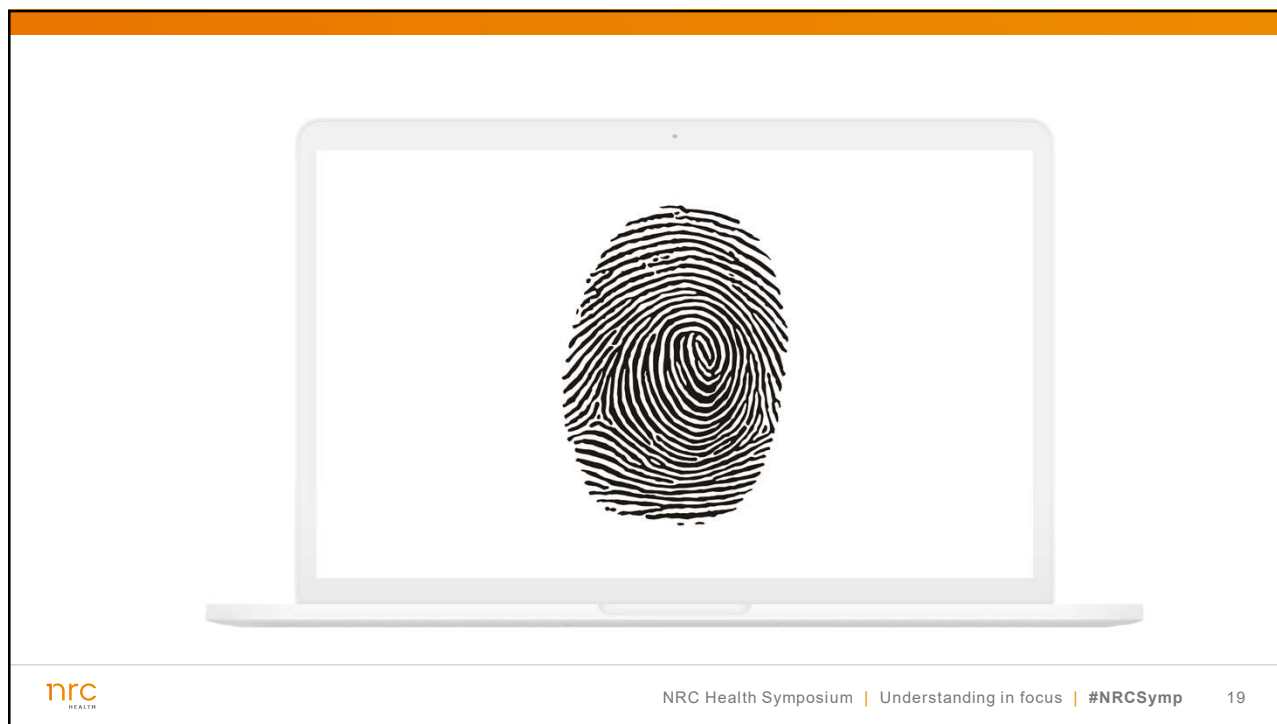
Seattle Mama Doc: Podcast



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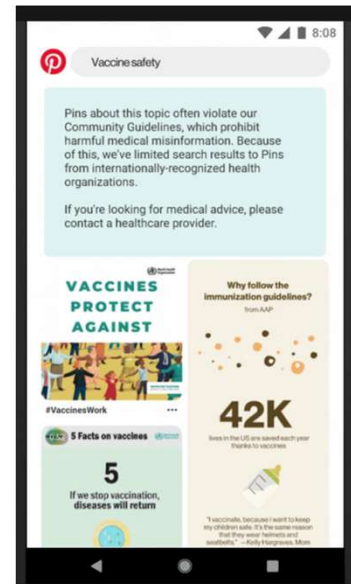


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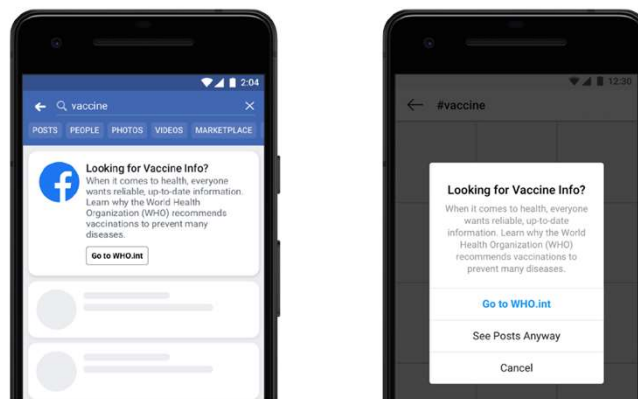
20

Pinterest's new vaccine search will offer something rare on social media: facts



21

"We are working to tackle vaccine misinformation on Facebook by reducing its distribution and providing people with authoritative information on the topic."



22

Majority of anti-vaccine ads on Facebook two groups



Robert F. Kennedy Jr. poses for photographs with fans after speaking at a hearing challenging the constitutionality of the state legislature's repeal of the religious exemption to vaccination. (Hans Pennink/AP)

By **Lena H. Sun**

November 15, 2019 at 6:00 a.m. CST

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Doctors have decades of experience fighting “fake news.” Here’s how they win.

Some lessons from the health community’s long battle with misinformation.

By Julia Belluz | @juliaoftoronto | julia.belluz@voxmedia.com | Updated Apr 29, 2017, 10:44am EDT

f t SHARE



“Fake news” is old news for the medical community. | Viktor Gladkov/Shutterstock

- Explain Why
- Reliable Info
- Teach When Young
- Evidence Is helpful but not sufficient

24

Lesson 5: Don't be afraid to hold misinformation peddlers to account



Dr. Oz being admonished for misrepresenting science on his TV show in a 2014 Senate committee hearing. "I don't get why you say this stuff because you know it's not true," Democratic Sen. Claire McCaskill told him.

"It is chilling to see the great institutions of health care, hospitals, physician groups, scientific bodies assume that the seat of bystander is available. That seat is gone. To try to avoid the political fray through silence is impossible, because silence is now political. Either engage, or assist the harm. There is no third choice."

Donald M. Berwick, MD, MPP
Moral Choices for Today's Physician, JAMA 2017



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PRODUCT INNOVATIONS ARE
EASY.

BEHAVIOR CHANGE IS REALLY
HARD.

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"What rules did you break to do what was best for your patient?"



LESSONS LEARNED FROM VACCINES

1. Safety
2. Efficacy
3. **Convenience**



BEHAVIOR CHANGE

OVERWEIGHT & OBESITY

Obesity affects 1 in 5 children and is the largest modifiable threat to American health¹



1. CDC. Childhood Overweight and Obesity 2018.

COVID19

Research shows the importance of sleep, nutrition, masks, and social distancing in prevention



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10X

Growth in global sales of pureed food pouches from 2010-17 (\$16M to \$160.8M)¹

1/2

Of children younger than 3 eat purees from pouches²



58%

Have one or more pouches per day²



1. Technavio. Global Baby Food Packaging Market 2010-2017. NRC Health Symposium | Understanding in focus | #NRCSymp

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Herbert Simon

ATTENTION ECONOMY



33

Online Diagnosis

(among Gen Pop)
% Somewhat/Completely Describes

6 IN 10

Attempt to diagnose themselves after browsing symptoms on the internet

BOOMERS – 50%
MILLENNIALS – 76%

6 IN 10

Believe they can figure out the best treatments without going to a hospital

BOOMERS – 52%
MILLENNIALS – 76%

EDELMAN INTELLIGENCE © 2019
Q9. Please indicate whether each statement below describes you and your personal healthcare.
Base size: Gen Pop = 3,000

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Don't Be Afraid To Be An Idealist

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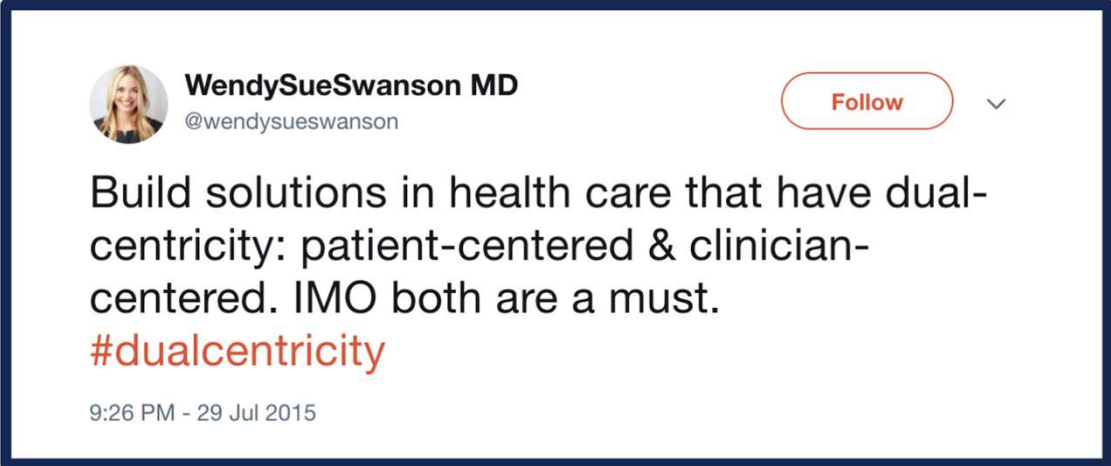
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Dual-Centricity

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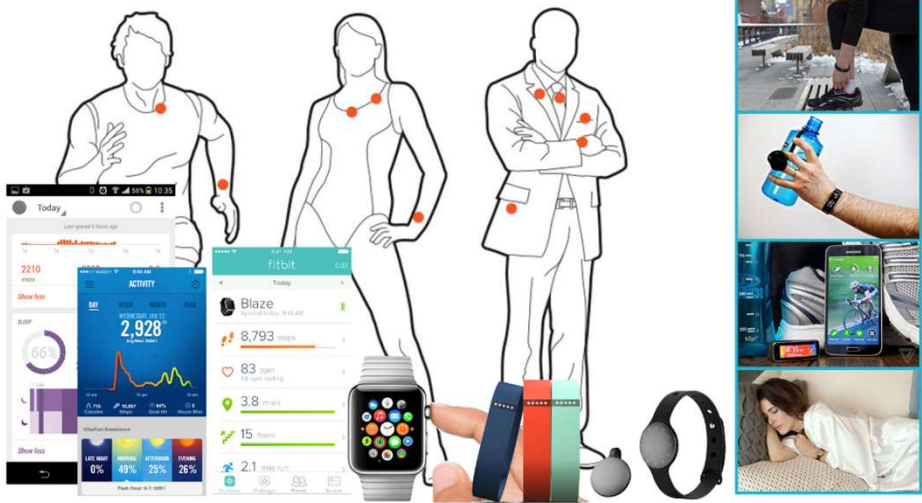



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 @wendysueswanson Follow

Build solutions in health care that have dual-centricity: patient-centered & clinician-centered. IMO both are a must.
#dualcentricity

9:26 PM - 29 Jul 2015

37



An illustration showing three human figures (a man, a woman, and a man in a suit) with red dots on their bodies. Overlaid on the figures are various health and activity data visualizations:

- A smartphone screen showing a weather forecast for 'Today' with a high of 2210 and a low of 1800, and a 'Show less' button.
- A 'fitbit' activity tracker screen showing 'Blaze' with 8,793 steps, 83 bpm heart rate, 3.8 miles, and 15 floors.
- A 'Show less' button for a health dashboard with metrics like '66%', '2,928', and '2.1'.
- A hand holding a blue water bottle.
- A hand holding a smartphone displaying a health app.
- A person sleeping in bed.
- A smartwatch and a fitness band.

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"Nothing About Me Without Me...."



Our Mission

OpenNotes is an international movement committed to spreading the availability of open visit notes and studying the effects. We believe that providing ready access to notes can empower patients, families, and caregivers to feel more in control of their healthcare decisions, and improve the quality and safety of care.

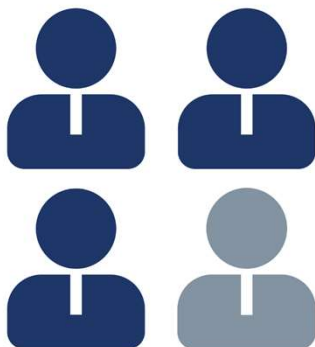


3 out of 4 patients reported:

- taking better care of themselves
- understanding their health and medical conditions better
- feeling more in control of their health and health care
- being better prepared for visits
- and doing better with taking their medications as prescribed

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3 out of 4 patients reported:



- taking better care of themselves
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- feeling more in control of their health and health care
- being better prepared for visits
- and doing better with taking their medications as prescribed



40

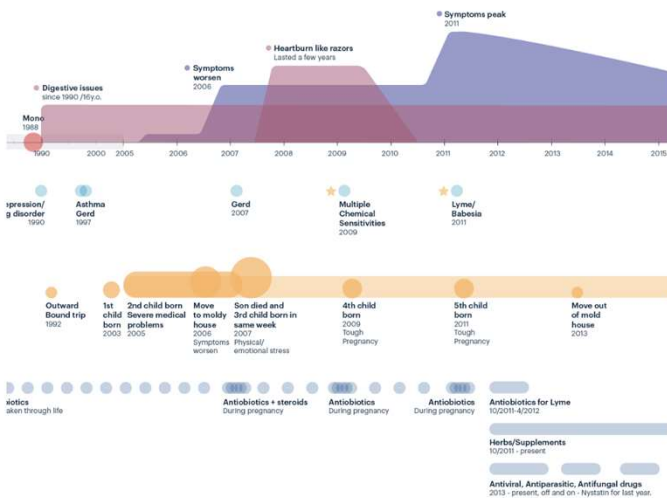


Very few clinicians report any impact on workflow, with only 3% reporting longer visits or more questions.



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Tell your health story visually.

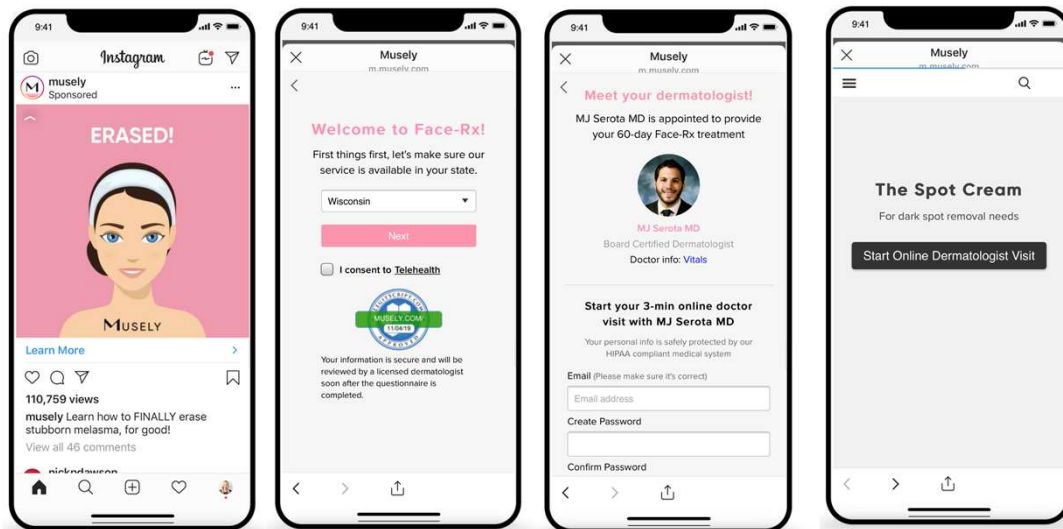


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"Infant tracking is in its infancy"



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Figure 7. Reported use of online health resources
Percent of 14- to 22-year-olds who say they have:



HopeLab Report: 14 to 22 Year-Olds Digital Health Practice

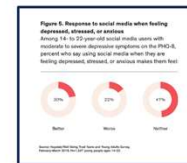
1/3

14-22 year-olds
connected with
health teen online

91%

said it was helpful

1,335 teens and YA. Study conducted by Vicky Rideout & Susannah Fox



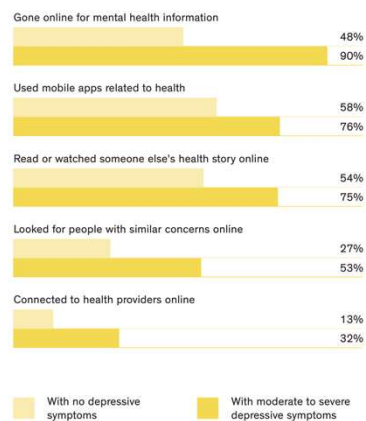
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Figure 1. Reported use of online health resources
Percent of 14- to 22-year-olds who say they have:



Source: Hopelab/Well Being Trust Teens and Young Adults Survey, February-March 2018. N=1,337 young people ages 14-22.

Figure 2. Reported use of online health resources,
by depressive symptoms
Percent of 14- to 22-year-olds who say they have:



46

1/3

14-22 year-olds
connected with
health teen online

91%

said it was helpful

47



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The conditions in which people are born, grow, live, work and age—can influence nearly **70% of health outcomes.**

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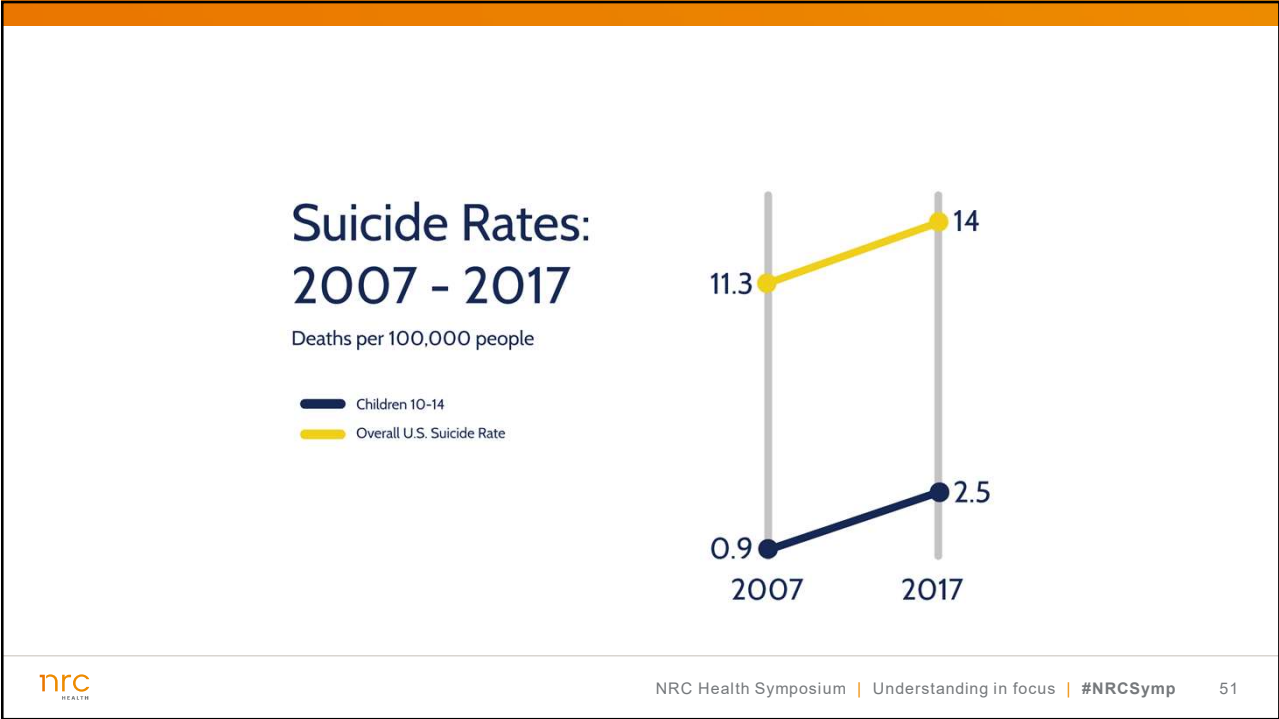
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Life expectancy has declined over the past three years, driven down by increasing rates of suicides and drug overdoses.

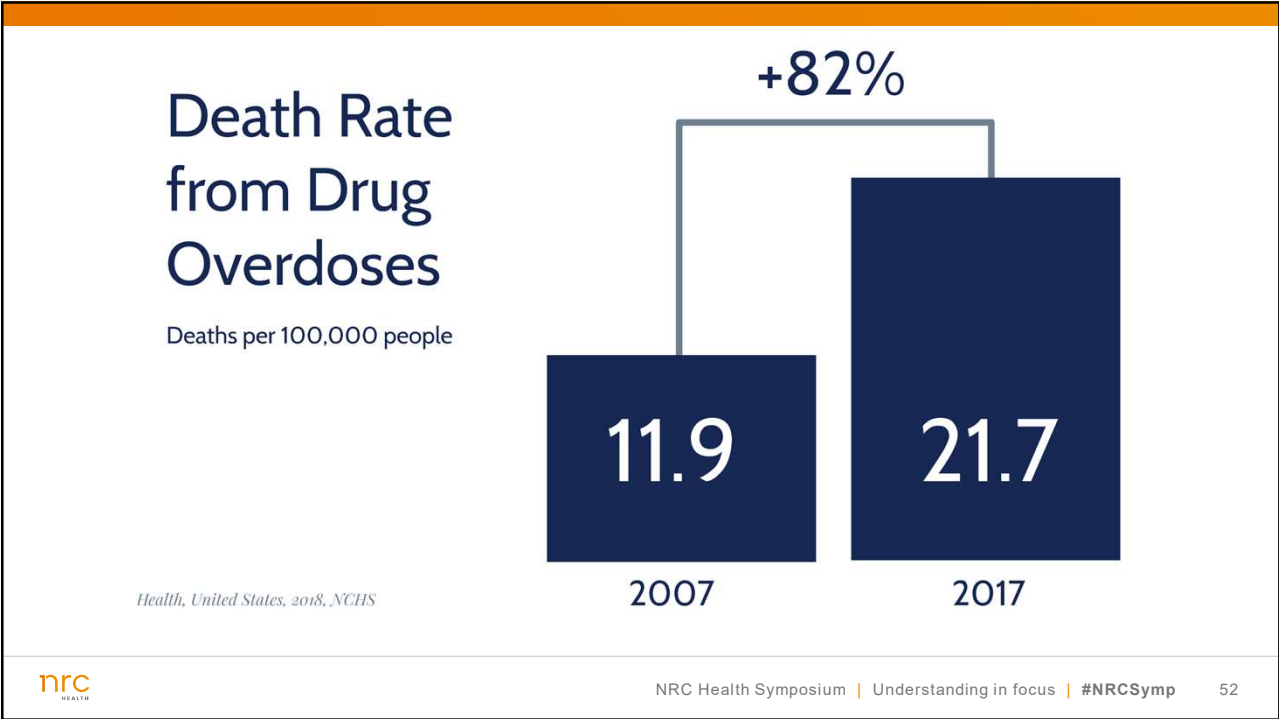
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“Science discerns the laws of nature.
Industry applies them to the needs of man”

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There's a big difference between a rebel and a troublemaker

Troublemaker	Rebel
complain	create
me-focused	mission-focused
anger	passion
pessimist	optimist
energy-sapping	energy-generating
alienate	attract
problems	possibilities
alone	together

Source: Helen Bevan

Source: Lois Kelly www.foghound.com

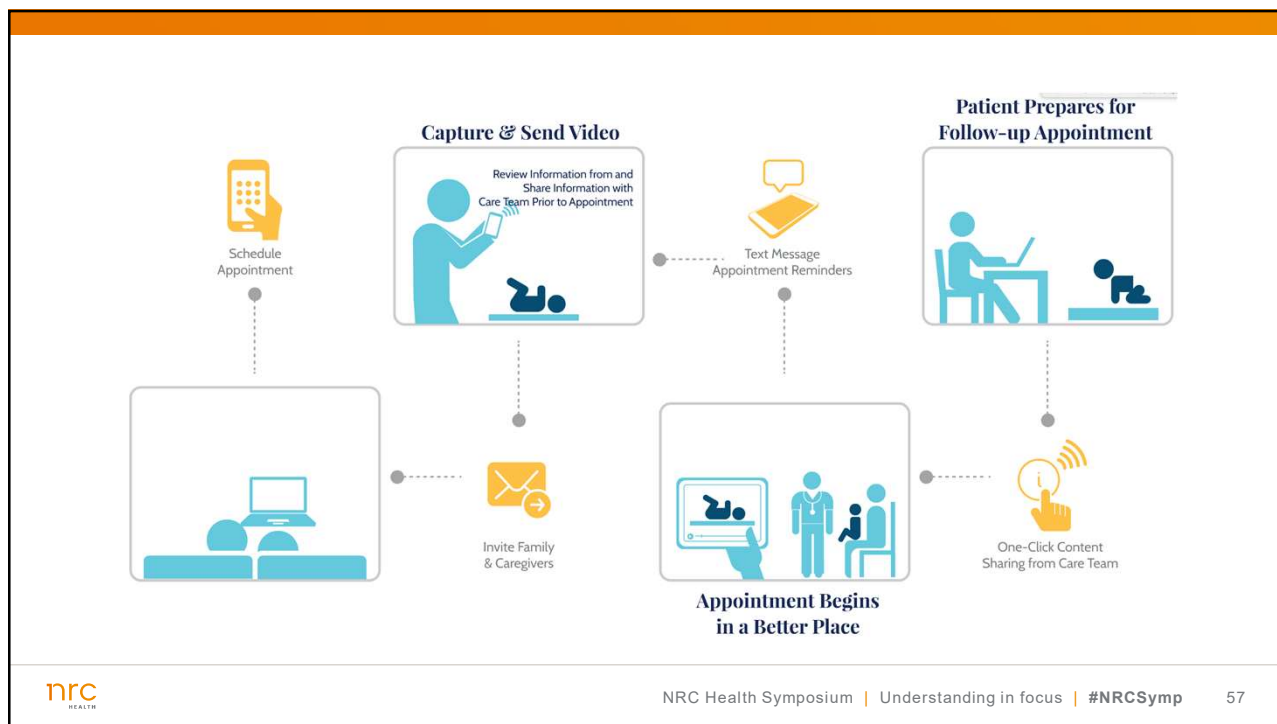
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Virtual Handshake™

Connecting patients and families with providers before, during and after their visit.



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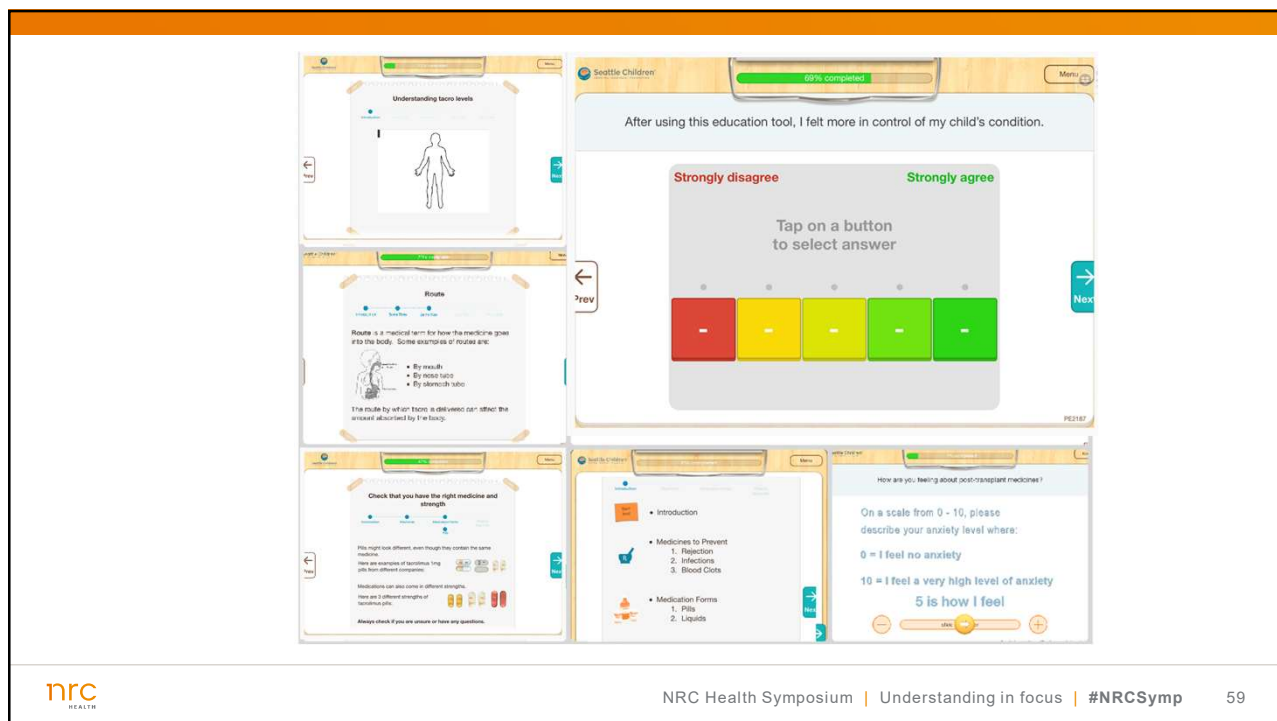
tonic

Patient data collection platform | Integrates with institutional EHRs | HIPAA-compliant

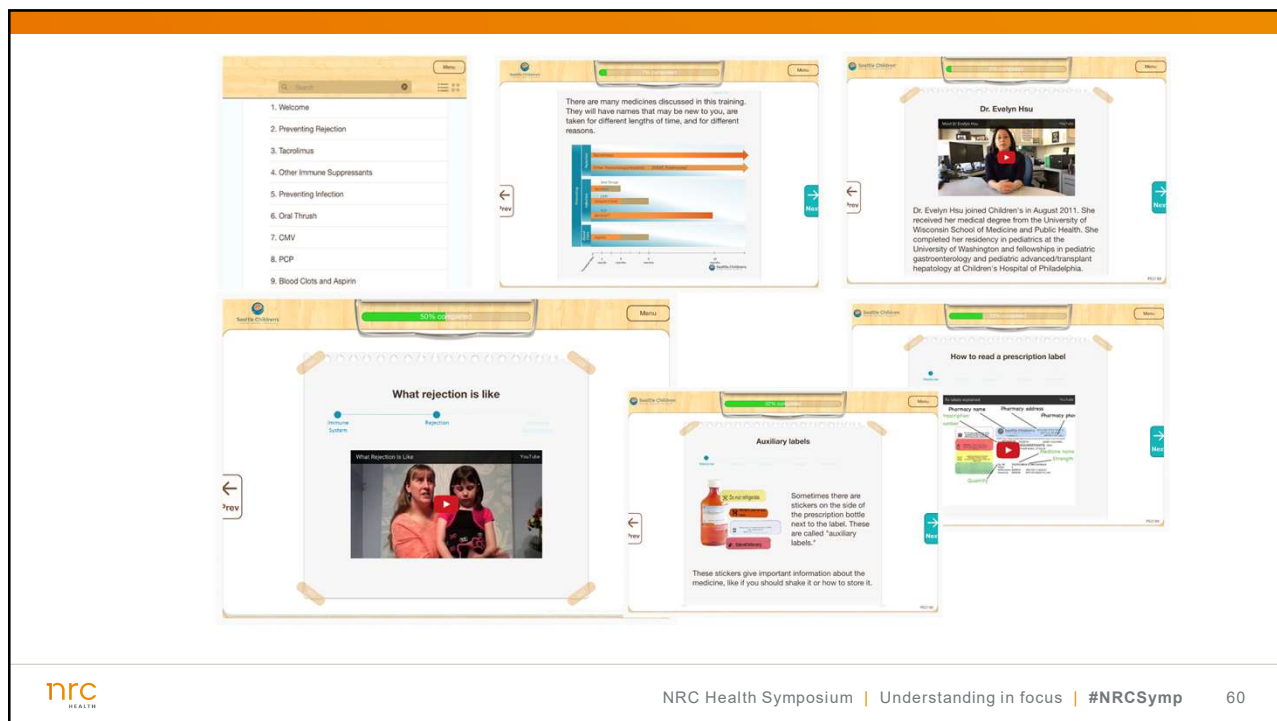
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Apps






P.O.P. Care
Version 0.0.25 (25)
Expires in 89 days

OPEN



PRISM Resilience
Version 1.0 (10)
Expires in 85 days

OPEN



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Promoting Resilience in Stress Management (PRISM)



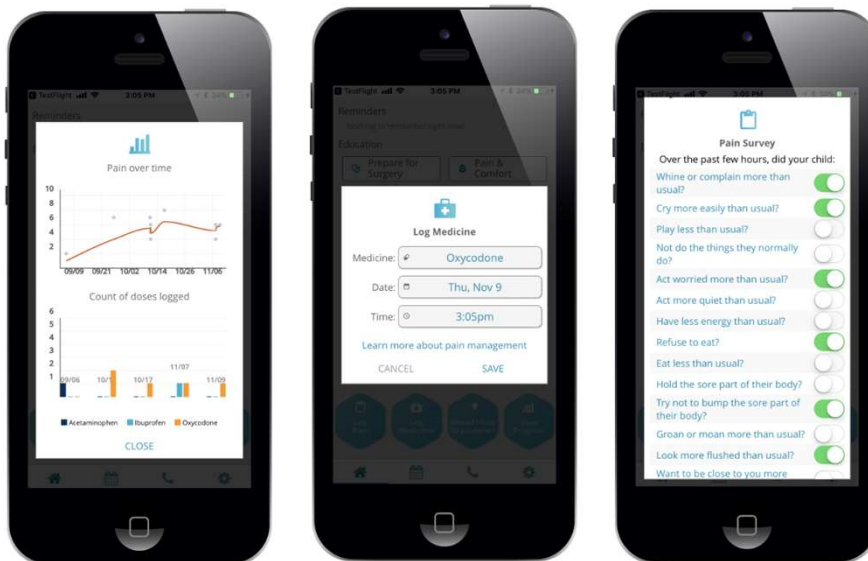


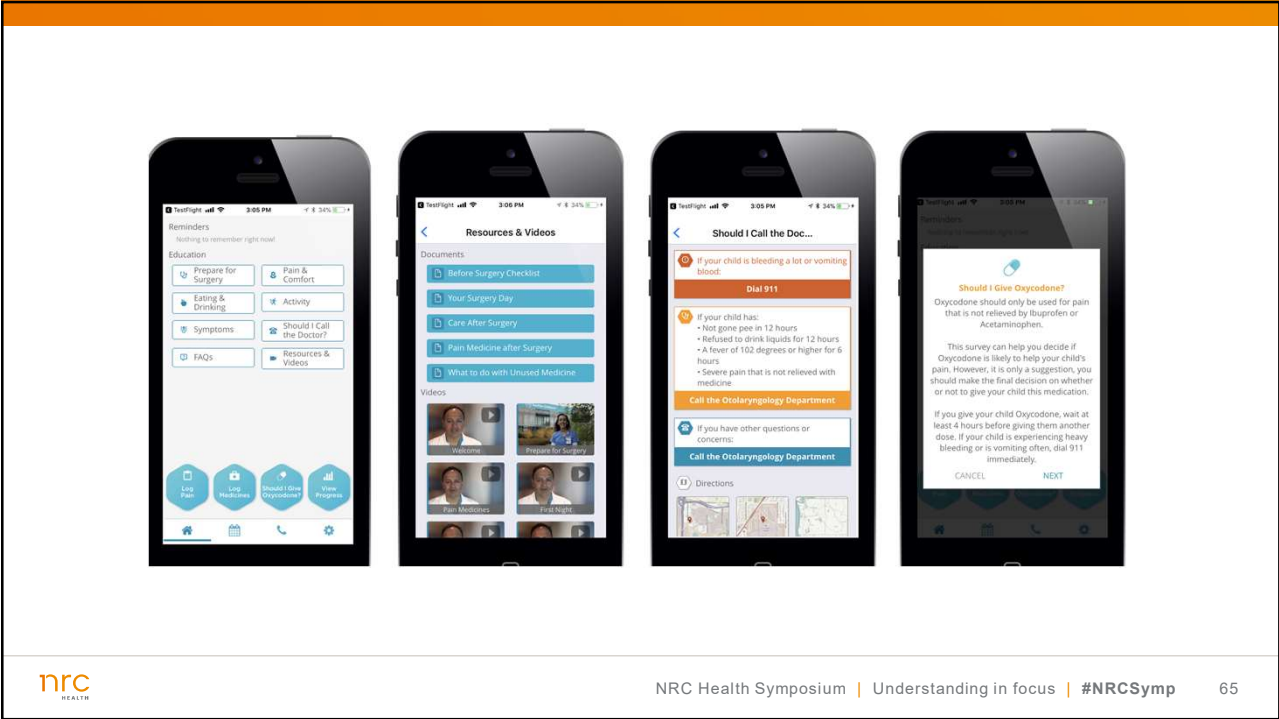
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Post-Operative Pain App (P.O.P.)






 **Boston Children's Hospital**
Until every child is well


 **Seattle Children's**
HOSPITAL · RESEARCH · FOUNDATION



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Ocean 8 Clinics
orange floor

- ↑ Otolaryngology
- Vascular Anomalies
- Nutrition
- Audiology
- Childhood Communication Center

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New Alexa skill from Seattle and Boston children's hospitals takes on flu season

BY CLARE MCGRANE on September 26, 2018 at 9:49 am

The Washington Post
Democracy Dies in Darkness

Health & Science

Flu broke records for deaths, illnesses in 2017-2018, new CDC numbers show

Swanson, who heads digital innovation at Seattle Children's Hospital, created a new skill for Amazon.com's voice-assistant device, Alexa, called Flu Doctor to answer questions about flu. (Jeffrey P. Bezos, the founder and chief executive of Amazon, owns The Washington Post.)

"I'm just trying to figure out how to build trust," she said. "In the end, fear tactics aren't that effective. Parents feel a responsibility to their own child. They're mostly motivated to keep their kid alive."

Flu Doctor: New Alexa Skill To Support Families

Author: Wendy Sue Swanson, MD, MBE

SEPTEMBER 25, 2018 | DOCTORS & HEALTHCARE: VACCINES

Enabling Flu Doctor Alexa Skill

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Integrate Existing Technologies

HealthMap Vaccine Finder About f

Please note that some locations are experiencing shingles vaccine shortages. Remember to call ahead to ensure that the vaccine you need is available.

What Vaccines Do I Need?

Location

Boston, MA, USA

Vaccines

Select/Deselect All

Flu B

Hepatitis A

Hepatitis B

HPV B

MMR

Shingles

Tdap

Td

Meningococcal B

Pneumococcal B

Varicella

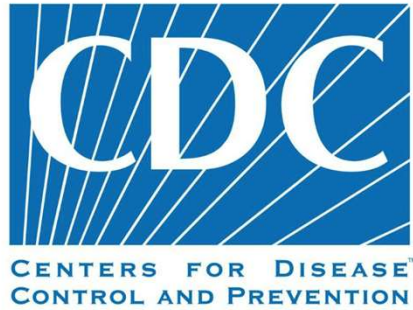
1. CVS Pharmacy
 2 Center Plaza, Boston, MA 02108
 ☎ 617-523-3653 | Directions | Website | Uber
 Hours: Mon-Fri: 07:00 AM - 07:00 PM, Sat & Sun: Closed
 Vaccines: 9-valent HPV, Bivalent HPV, Hepatitis A, Hepatitis B, MenACWY, MenB, MMR, MPSV4, PCV13, PPSV23, Quadrivalent HPV, Shingles/zoster, Td, Tdap, Varicella

2. One Medical Group
 28 State Street, Suite 2860, Boston, MA 02109
 ☎ 617-303-5000 | Directions | Website | Uber
 Hours: M-F: 8:00am-6:00pm
 Vaccines: 9-valent HPV, Hepatitis A, Hepatitis B, MenACWY, MMR, PCV13, PPSV23, Quadrivalent HPV,

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Leverage Partnerships



American Academy
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™



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 **50%** of search will be voice enabled by 2020

Sharing Screen
Click to pin/unpin this screen
Done

 **7.5%**

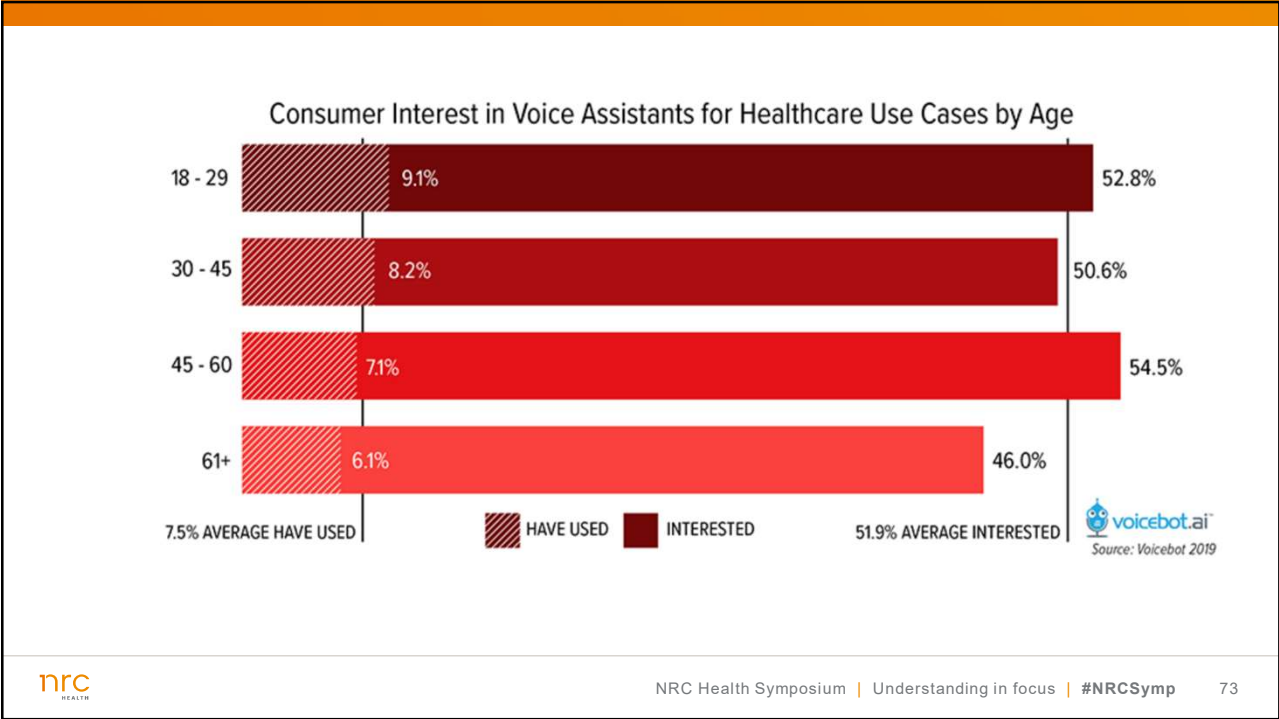
52%



18-29
most likely

45-60
most bullish

72



73




74

“The future is an infinite succession of presents, and to live now like we think humans should live, in defiance of all that is bad around us, is itself a marvelous victory.”
Howard Zinn

Please Reach Out

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