

# Using Technology to Extend Clinicians' Preventive Reach

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# Adolescent and Young Adult Health Research Network

## Overall Goals:

To Develop & Maintain a Transdisciplinary Multi-site Research Network that will:

- Accelerate the translation of developmental science into MCH Adolescent & Young Adult (AYA) practice;
- Promote scientific collaboration; and
- Develop additional research capacity in the AYA health field

[http://nahic.ucsf.edu/research\\_network/](http://nahic.ucsf.edu/research_network/)

# Network Leadership

## Partners

- Society for Adolescent Health and Medicine (SAHM)
- Leadership Education Adolescent Health Projects
  - Johns Hopkins University
  - Harvard University/Boston Children's
  - Indiana University
  - University of Alabama, Birmingham
  - University of Minnesota
  - University of Washington/Seattle Children's Hospital

# Network Leadership

## UC San Francisco

- Elizabeth Ozer, PhD, PI
- Charles Irwin, MD, Co-PI
- Jane Park, MPH, Network Coordinator

## UC Berkeley, Center for Developing Adolescent

- Ron Dahl, MD
- Ahna Suleiman, DrPH

# Spectrum of Prevention Strategies

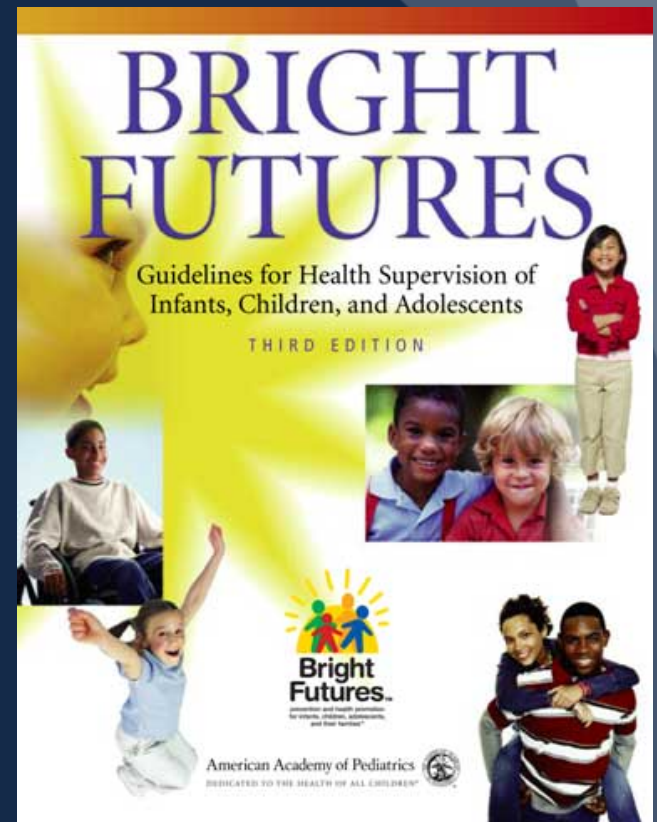
- **Universal prevention:** targets entire population, regardless of risk level
- **Selective prevention:** targets at-risk subgroups prior to initiation (e.g., those with risky families or peers)
- **Indicated prevention:** targets those in early stages of risk behavior to prevent further progression (early intervention)

# Clinical Preventive Services

- Services delivered by a provider in a clinical setting
- Services designed to avert/delay the onset of various physical & mental health disorders or to identify problems (or assets) early in order to minimize (maximize) their impact

# Bright Futures: Guidelines for Health Supervision of Infants, Children & Adolescents

- Comprehensive Guidelines - Birth to 21 years; 11-21 for adolescents
- Consensus Recommendations - Evidence based when possible.
- 3<sup>rd</sup> edition 2008 - MCHB, AAP (4<sup>th</sup> edition expected 2017)



# Low Preventive Services Delivery

- Despite guidelines, current delivery of preventive services below recommended levels (e.g. Rand et al., 2005; Ma et al., 2005; Irwin et al., 2009; Ozer et al., 2009; Duncan et al 2013; Harris et al., 2016).
- Barriers include:
  - Clinician Factors - Knowledge, attitudes, skills
  - External Factors - Tools, reminders, resources

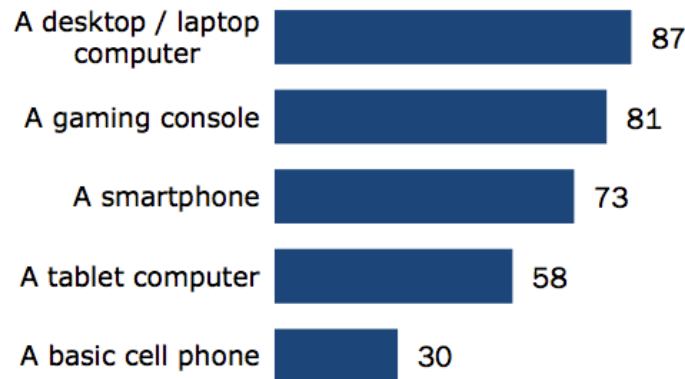
# Increasing Preventive Services

- Of particular promise to address these barriers include:
  - Brief screening tools with appropriate clinician training
  - Integrating screening and clinician decision support - including integrating tools into innovative interactive technology & electronic medical record systems

# Technology Is Ubiquitously Used by Teens and Young Adults

## Teens' Phone, Computer & Console Access

*% of all teens who have or have access to the following:*

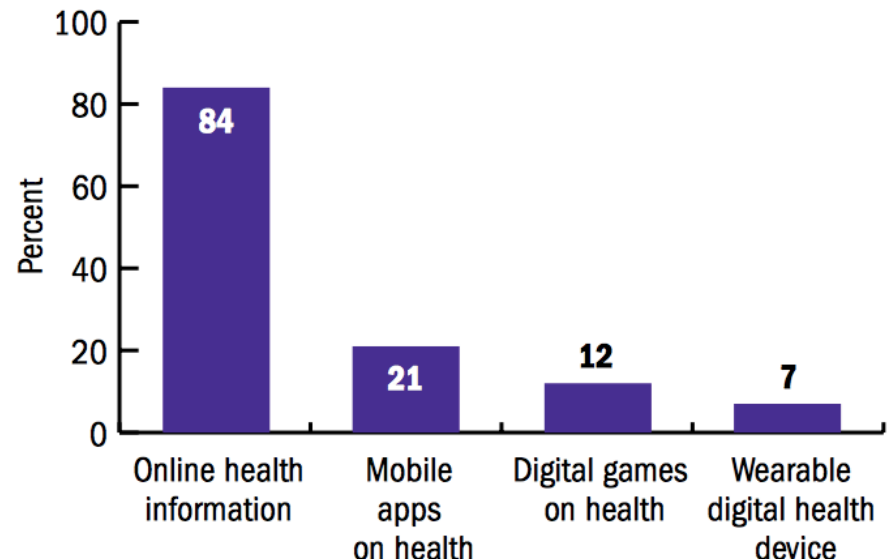


Source: Pew Research Center's Teens Relationships Survey, Sept. 25-Oct. 9, 2014 and Feb. 10-Mar. 16, 2015 (n=1,060 teens ages 13 to 17).

PEW RESEARCH CENTER

## Chart 2: Use of digital health tools by teens

Among all 13- to 18-year-olds, percent who have ever used:



Wartella. *Teens, Health, and Technology* 2015

# Technology Offers A Way To Extend the Clinician's Reach for CPS

- Provide social support
- Allow instantaneous feedback
- Deliver peer-to-peer health advice
- Vehicle for behavioral interventions
- Expand platform for supporting disease management

# Innovative Technology for AYAs: Prevention & Behavior Change

- ✓ Technology-Based Strategies for AYA Substance Use Prevention
- ✓ Mobile Health & Wearable Devices
- ✓ Social Networking & Online Health Communities



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Review article

## Research on Clinical Preventive Services for Adolescents and Young Adults: Where Are We and Where Do We Need to Go?



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