2 Decades of Health Literacy Research in Chronic Disease: Found Treasure? Or Lost in Translation?

Dean Schillinger  MD  UCSF Professor of Medicine in Residence
Chief, Division of General Internal Medicine
Director, Health Communications Research Program
UCSF Center for Vulnerable Populations @ SF General Hospital
I have no financial relationships with commercial entities producing healthcare related products and/or services.
Objectives

- Provide a brief overview of recent chronic disease work re:
  - Cleaning up the Medication Mess
  - Providing Self-Management Support
  - The Language and Literacy Tango
  - Translating Research into Policy
  - The Next Frontier: Public Health Literacy to Prevent Chronic Disease
Found Treasure?
What are We Up Against?
Reversing The Inverse Care Law

- “Access to and quality of healthcare is inversely proportional to the needs of the population”

  - Tudor-Hart, 1971
Vulnerabilities Cluster within Individuals and Neighborhoods

Rate of Adult Uncontrolled Diabetes
Diabetes Short-term & Long-term Complications Hospitalizations.
Hospitalizations Pooled 1999-2001 Discharge Data.
Age Adjusted Data per 100,000.

- Populations not Statistically Significant
  - 1 - 150
  - 151 - 299
  - 300 - 499
  - 500 - 799
  - 800 - 1179

Source: San Francisco Department of Public Health. 2004 Community Health Assessment.
City and County of San Francisco Department of Public Health Environmental Health Section
Common Social Vulnerabilities

Violence
Uninsured
Literacy and Language
Neglect
Economic hardship/food insecurity
Race/ethnic discordance, discrimination
Addiction
Brain disorders, e.g. depression, dementia
Immigrant
Legal status
Isolation/Informal caregiving burden
Transportation problems
Illness Model
Yes and Ears
Shelter

Schillinger 2007
“Somebody has to do something, and it's just incredibly pathetic that it has to be us.”

Jerry Garcia
I. Cleaning up the Medication Mess

“Ask your doctor if taking a pill to solve all your problems is right for you.”
Antidepressant patterns of use

New Prescription Cohort  N=1366

Primary Non-Adherent  N=52 (4%)

Primary Adherent  N=1314 (96%)

Provider Discontinued Medication  N=109 (8%)

Early Non-Persistent  N=432 (32%)

Early Persistent  N=773 (57%)

Provider Discontinued Medication  N=228 (17%)

2nd Stage Non-Persistent (12mo)  N=83 (6%)

Persistent User at 12 mos  N=462 (34%)
# Health literacy limitations associated with antidepressant adherence (N=1,366)

<table>
<thead>
<tr>
<th></th>
<th>Early Non-Persistent</th>
<th>Non-Persistent at 180 days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RR</td>
<td>95% CI</td>
</tr>
<tr>
<td>Any Health Literacy Limitation (reference = None)</td>
<td>1.28</td>
<td>1.03, 1.61</td>
</tr>
<tr>
<td>Race/Ethnicity (reference = White)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td>1.48</td>
<td>1.17, 1.87</td>
</tr>
<tr>
<td>Asian</td>
<td>1.37</td>
<td>1.00, 1.88</td>
</tr>
<tr>
<td>Filipino</td>
<td>1.56</td>
<td>1.18, 2.06</td>
</tr>
<tr>
<td>Latino</td>
<td>1.73</td>
<td>1.40, 2.14</td>
</tr>
<tr>
<td>Multiracial</td>
<td>1.51</td>
<td>1.12, 2.02</td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>1.66</td>
<td>1.14, 2.43</td>
</tr>
<tr>
<td>Low income (reference = higher income)</td>
<td>1.07</td>
<td>0.88, 1.30</td>
</tr>
</tbody>
</table>

Models adjusted for age, gender, diabetes complications, and prior depression diagnosis / treatment

A Bauer, D Schillinger JGIM 2013
Using pictographs and simplifying /standardizing instructions

Lin, Arch Ped Adol Med 2009
Wolf, Arch Int Med 2010
Wolf, Arch Int Med 2011
Improving Medication Concordance

- Enhancing communication for those with communication barriers
  - Tailoring of service
  - Using Visual aids + 1 teach-back
  - Participatory approach
Computerized Visual Medication Schedule + Teach-Back

<table>
<thead>
<tr>
<th>Name</th>
<th>Got this Photo on</th>
</tr>
</thead>
<tbody>
<tr>
<td>姓名</td>
<td>在這個日期收到這一張圖片</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>星期一</td>
<td>星期二</td>
<td>星期三</td>
<td>星期四</td>
<td>星期五</td>
<td>星期六</td>
<td>星期日</td>
</tr>
<tr>
<td>Coumadin 6 mg</td>
<td>Coumadin 6 mg</td>
<td>Coumadin 6 mg</td>
<td>Coumadin 6 mg</td>
<td>Coumadin 6 mg</td>
<td>Coumadin 6 mg</td>
<td>Coumadin 3 mg</td>
</tr>
<tr>
<td>Coumadin 6 mg</td>
<td>Coumadin 6 mg</td>
<td>Coumadin 6 mg</td>
<td>Coumadin 6 mg</td>
<td>Coumadin 6 mg</td>
<td>Coumadin 6 mg</td>
<td>Coumadin 3 mg</td>
</tr>
</tbody>
</table>

*Remember:* Take these pills correctly and you can prevent strokes and bleeding!

*記住:* 正確的服用這些藥片您就可以預防中風和流血！

Machttinger, Schillinger 2007 J Comm J Qual Safety
Intervention patients reached safe and effective target faster; important subgroup effects

Machtinger, Schillinger 2007
J Comm J Qual Safety
Observed dosing accuracy by dosing instrument type. No error indicates within 20% of the recommended dose; underdose, below the recommended dose by more than 20% deviation; and overdose, greater than the recommended dose by more than 20% deviation.
Observed dosing accuracy among caregivers whose children were prescribed daily dose (A) and as-needed (B) medications.

Shonna Yin, Arch Ped Adol Med, 2008
Decisional Conflict Scale

Considering the decision that you made about your RA medicines, please answer the following questions:

1. Do you know which options are available to you?
2. Do you know the benefits of each option?
3. Do you know the risks and side effects of each option?
4. Are you clear about which benefits matter most to you?
5. Are you clear about which risks and side effects matter most to you?
6. Do you have enough support from others to make a choice?
7. Are you choosing without pressure from others?
8. Do you have enough advice to make a choice?
9. Are you clear about the best choice for you?
10. Do you feel sure about what to choose?
Health Literacy and Decisional Conflict in Rheumatoid Arthritis

* Difference in scores p<0.05

J Barton, Schillinger et al. 2014
My Doctor said "Only 1 glass of alcohol a day". I can live with that.

“The problem with communication is the assumption that it has occurred.”

-GB Shaw
II. Providing Self-Management Support
Using ‘teach-back’ or ‘teach-to-goal’ strategy to promote learning in Heart Failure

DeWalt, Baker, Schillinger et al. 2011
Single education session (~ 40 minutes)

Caring for Your Heart: Living Well with Heart Failure
Given a new digital scale

Randomization
Stratified by Literacy

No further intervention
Single Session Only (SSO)

Additional Education
Teach to Goal (TTG)
Single Session

#1 — How do I feel today?
You can tell how well your heart is doing by how you feel and what you can do.

Am I short of breath walking?
Heart failure can make you feel short of breath while walking.

Doing well — walk easily with no shortness of breath
Getting worse — shortness of breath after walking a short distance
Call your doctor — shortness of breath at rest

When Should I Call?

Call us if:

Phone ______________

You are short of breath at rest or more short of breath than usual.

You have to sleep upright or in a chair.

You have more swelling in your legs than usual.

You have a lot of dizziness or light-headedness that is worse than usual.

Your weight goes up by 4 or more pounds from your target weight.
Teach to Goal

- Teach diuretic self-adjustment
- 5-8 calls first month
- Call every 2-4 weeks thereafter
- Topics discussed based on set knowledge and behavior goals
- Call frequency based on demonstrated mastery of goals
- All intervention focused on patient education, not system change
<table>
<thead>
<tr>
<th>Group</th>
<th>Odds Ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>0.90 (0.70, 1.15)</td>
</tr>
<tr>
<td>Low Lit</td>
<td>0.53 (0.29, 0.96)</td>
</tr>
<tr>
<td>High Lit</td>
<td>1.36 (0.88, 2.12)</td>
</tr>
</tbody>
</table>
Implications

- The dose and style of self-management support programs has differential effects based on patient literacy.

- TTG may be an effective design to assist patients with low literacy.

- A one-size fits all approach to self-management support may not optimize use of resources.
Carb Counting Vs. Plate Method?

Practice One Serving Size

Use the label below:

What is the serving size?

How many carbohydrate grams are in each serving?

If you eat one serving, you will get grams of carb.

Nutrition Facts

Serving Size: 2 crackers (14 g)
Serving Per Container: About 21

Amount Per Serving
Calories 80
Calorie from Fat 15

% Daily Value
Total Fat 1.5 g 2%
Saturated Fat 0 g 0%
Trans Fat 0 g
Cholesterol 0 mg 0%
Sodium 70 mg 3%
Total Carbohydrate 14 g 5%
Dietary Fiber Less than 1 g 3%
Sugars 8 g
Protein 2 g

Vitamin A 0%  Vitamin C 0%
Calcium 0%  Iron 25%

Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

- Total Fat 65 g
- Saturated Fat 20 g
- Cholesterol 300 mg
- Sodium 2,400 mg
- Total Carbohydrate 300 g
- Dietary Fiber 130 g

2 servings is crackers

Add grams of carb from 1 serving grams of carb from 1 serving
grams of carb from 2 servings

1/2 serving is crackers

grams of carb from 1 serving divided by 2
grams of carb from 1/2 serving

Free Foods
- Most grains
- Beans, lentils, peas, chickpeas
- Nonstarchy vegetables
- Fruits
- Nonfat milk and milk products
- Poultry, eggs, fish
- Nuts and seeds
- Cooking oils

Protein should be about the size of your palm

For Lunch and Dinner, You Should Divide Your Plate into 3 Parts

Use this part of your plate for Protein Foods

For Fats, you can have any from this list on 1/2 palm
- 1 small piece of full-fat cheese
- 1 small piece of cheese or small slice of cheese
- 1 small piece of nuts or seeds
- 1 small piece of full-fat cheese
- 1 small piece of full-fat cheese
- 1 small piece of full-fat cheese

Rothman 2010
Plate Model > Carb Counting > Usual Care in lowering HbA1c, esp for low numeracy

Black=High Num
Grey=Low Num

Rothman et al 2010
Accessible Technology

Schillinger Diab Care 2009
Automated Telephone Diabetes Self-Management Support (ATSM)

- Interactive health technology, touch tone response
- Weekly surveillance using easy-to-understand questions
- Tailored health education (39 weeks=9 mos) using jargon-free narratives
- In patients’ preferred language (English, Spanish or Cantonese)
- Generates weekly reports of out of range responses that trigger call-backs
- Live phone follow-up through a bilingual nurse
IDEALL PROJECT

Randomize 339 Patients with HbA1c >8.0%

- Weekly Interactive Technology
  - Nurse Care Manager
    - Weekly ATSM
    - Primary Care Physician
      - Patient

- Usual Care

- Monthly Group Medical Visits
  - English-Speaking Group
  - Spanish-Speaking Group
  - Cantonese-Speaking Group

Follow-Up Questionnaires (Patient-Centered Outcomes, Functional Status, Glycemic Control, Blood Pressure)

• 6-10 Patients
• Health Educator
• Primary Care Physician
Key Findings of IDEALL Program
Estimating Public Health “Reach” of Programs

Composite reach product

<table>
<thead>
<tr>
<th></th>
<th>ATSM</th>
<th>GMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>22.1</td>
<td>4.8</td>
</tr>
<tr>
<td>English</td>
<td>20.0</td>
<td>6.4</td>
</tr>
<tr>
<td>Chinese</td>
<td>22.0</td>
<td>2.7</td>
</tr>
<tr>
<td>Spanish</td>
<td>24.3</td>
<td>4.0</td>
</tr>
<tr>
<td>Adequate Literacy</td>
<td>15.6</td>
<td>7.6</td>
</tr>
<tr>
<td>Limited Literacy</td>
<td>28.0</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Literacy and the Digital Divide in Diabetes*

N= 14,102

*For difference between those with and without limited health literacy, p for all < 0.01

Sarkar, Karter, Schillinger J Health Comm 2010

CVP
Center for Vulnerable Populations
@ SF General Hospital

UCSF
Redesigned Multilingual Advance Directive Reduces Decisional Uncertainty and Improves Completion Rates

16% reported filling out the new advance directive vs. 5% of those assigned to the standard form, $P = 0.02$

Sudore, Schillinger PEC 2008
www.iha.org
III. Limited English Proficiency & Limited Literacy: Double Jeopardy?
LIMITED LITERACY & LEP OFTEN CO-EXIST
MANY DIABETES PATIENTS REPORT POOR PATIENT-PHYSICIAN COMMUNICATION

• Poor Receptive (Dr --> Pt) Communication 30%

• Poor Proactive (Pt --> Dr) Communication 28%

• Poor Interactive (Pt <- -> Dr) Communication 56%

Sudore, Schillinger PEC 2010
### PATIENTS WITH LIMITED LITERACY REPORT WORSE COMMUNICATION

<table>
<thead>
<tr>
<th>Communication Type</th>
<th>Adequate Literacy</th>
<th>Limited Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor Receptive Communication</td>
<td>24%</td>
<td>35%</td>
</tr>
<tr>
<td>Poor Proactive Communication</td>
<td>20%</td>
<td>35%</td>
</tr>
<tr>
<td>Poor Interactive Communication</td>
<td>50%</td>
<td>62%</td>
</tr>
</tbody>
</table>

*All P-values < .001*
PATIENTS WITH LEP REPORT WORSE COMMUNICATION

Communication by Language Concordance Category*

Native English  Spanish Concordant  Spanish Discordant

Percentage of Participants

Poor Receptive Communication

25%  27%  43%

Poor Proactive Communication

21%  25%  46%

Poor Interactive Communication

48%  57%  73%

* All P-values < .001
### EFFECTS OF LITERACY ON RECEPITIVE COMMUNICATION VARIES BY LANGUAGE STATUS

<table>
<thead>
<tr>
<th>Language Category</th>
<th>Adequate</th>
<th>Limited</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>English (n=412)</td>
<td>21</td>
<td>34</td>
<td>.003</td>
</tr>
<tr>
<td>Spanish-concordant (n=176)</td>
<td>20</td>
<td>29</td>
<td>.24</td>
</tr>
<tr>
<td>Spanish-discordant (n=183)</td>
<td>46</td>
<td>41</td>
<td>.55</td>
</tr>
</tbody>
</table>
## EFFECTS OF LITERACY PROACTIVE COMMUNICATION VARIES BY LANGUAGE STATUS

<table>
<thead>
<tr>
<th>Language Category</th>
<th>Poor Proactive Communication</th>
<th>By Literacy Level</th>
<th>Adequate %</th>
<th>Limited %</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>English (n=412)</td>
<td></td>
<td>Adequate</td>
<td>18</td>
<td>27</td>
<td>.03</td>
</tr>
<tr>
<td>English (n=412)</td>
<td></td>
<td>Limited</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanish-concordant (n=176)</td>
<td></td>
<td>Adequate</td>
<td>11</td>
<td>30</td>
<td>.01</td>
</tr>
<tr>
<td>Spanish-concordant (n=176)</td>
<td></td>
<td>Limited</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanish-discordant (n=183)</td>
<td></td>
<td>Adequate</td>
<td>41</td>
<td>48</td>
<td>.34</td>
</tr>
<tr>
<td>Spanish-discordant (n=183)</td>
<td></td>
<td>Limited</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Effects of Literacy on Interactive Communication Varies by Language Status

<table>
<thead>
<tr>
<th>Language Category</th>
<th>Adequate %</th>
<th>Limited %</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>English (n=412)</td>
<td>47</td>
<td>49</td>
<td>.76</td>
</tr>
<tr>
<td>Spanish-concordant (n=176)</td>
<td>44</td>
<td>62</td>
<td>.05</td>
</tr>
<tr>
<td>Spanish-discordant (n=183)</td>
<td>67</td>
<td>76</td>
<td>.16</td>
</tr>
</tbody>
</table>
IV. Translating Research into Policy
Selected Policy Accomplishments in Last 2 Decades (1)

2000 - HP 2010 (improve HL skills)
2003 - 1st state-based legislation (LA); HHS Health Literacy Workgroup
2004 – IOM Report; AHRQ Evidence-Based Report; NIH PAR on HL
2005 – AHIP adopt Health Literacy Program
2006 – NAAL Results; Surgeon General Workshop; IOM Roundtable; NLM Long Range Plan
Selected Policy Accomplishments in Last Decade (2)

2009 – Plain Language Act (US Congress)
2010 – AHRQ releases Universal Precautions HL Toolkit
2010 – Patient Protection and Affordable Care Act
2010 – DHHS National Action Plan to Improve HL
2011 - AHRQ Evidence-Based Report #2; HP 2020 + numerous global efforts (EU, UK, China, OECD, WHO)
2012 – IOM publishes 10 Attributes of Health Literate Organizations
2012 – California passes bill re simplifying/standardizing med labels.
Case examples of older adults’ dosing of a 7-drug regimen. UMS indicates universal medication schedule.

Michael S Wolf, Arch Int Med, 2011
New benefit rolled-out for select contracts on January 1, 2006.

No benefit change:

$ = 1 copayment
$$ = 2 copayments
$$ = 3 copayments

100 days supply (via mail order or walk-in pharmacy)

Medications via Mail Order Pharmacy:

$$ = $ = 30 days supply
$$ = 100 days supply

Medications via Walk-in Pharmacy:

$$ = $ = 60 days supply
$$ = 100 days supply

Received new drug benefit:

100 days supply (via mail order or walk-in pharmacy prior to 1/1/2006)
### Uptake of Mail Order Pharmacy Policy
Less Robust for those with Low Health Literacy Among People with Diabetes, N>10,000

<table>
<thead>
<tr>
<th></th>
<th>Pharmacy Benefit Change</th>
<th>No Pharmacy Benefit Change</th>
<th>Adjusted Difference between low and high HL</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate HL</td>
<td>40%</td>
<td>9%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Inadequate HL</td>
<td>26%</td>
<td>8%</td>
<td>-15%</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

A Karter, D Schillinger HSR 2014
Meaningful Use: Meaningful for Whom?

- High computer use clinicians
  - used more biomedical talk and
  - were more verbally dominant with patients with limited health literacy and limited English proficiency
V. The Next Frontier: “Public Health Literacy”

- Degree to which individuals and groups can obtain, process, understand, evaluate, and act upon information needed to make public health decisions that benefit the community
- Target populations: The public
- Purpose: Improve the health of the public
- Aims: Engage more stakeholders in public health efforts; address determinants of health
- Multidimensional: conceptual foundations; critical skills; civic orientation

D Freedman et al AJPM 2009
Harnessing Youth Voices to Change the Diabetes Conversation

The Bigger Picture: A public health literacy counter-marketing campaign

www.thebiggerpicture.org
Video PSA: *Pushin' Weight* by Simone Bridges
Video PSA: *Sole Mate* by Jose Vadi
10 years ago, only 1 in 11 had pre-diabetes.

Nearly one in four youth ages 12-19 have pre-diabetes.

And 50% of these youth are at greater risk of developing full-blown diabetes within 5 years.

Pediatrics 2012
ALMOST 50% OF AFRICAN AMERICAN & LATINO YOUTH WILL CONTRACT TYPE 2 DIABETES IN THEIR LIFETIME

25% of white youth; 1 in 3 youth overall

Source: CDC JAMA 2003
Distribution of Diabetes Types by Age at Diagnosis and Race/Ethnicity

10-19 years

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Type 1</th>
<th>Type 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHW</td>
<td>85</td>
<td>15</td>
</tr>
<tr>
<td>AA</td>
<td>42</td>
<td>58</td>
</tr>
<tr>
<td>H</td>
<td>54</td>
<td>46</td>
</tr>
<tr>
<td>API</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>AI</td>
<td>14</td>
<td>86</td>
</tr>
</tbody>
</table>
The Bigger Picture is a collaboration between the University of California, San Francisco Center for Vulnerable Populations at San Francisco General Hospital and Trauma Center and Youth Speaks. Support has been provided by The UCSF Diabetes Family Fund for Innovative Patient Care, Education and Scientific Discovery, Shape Up San Francisco, Metta Fund, and AT&T through the San Francisco General Hospital Foundation. Additional funding provided by the S.D. Bechtel, Jr. Foundation, the Stephen Bechtel Fund, The California Endowment, and Alameda County Public Health Department, Nutrition Services with support from Public Health Institute and The California Endowment. The content does not necessarily reflect the views of the sponsor organizations.

THE
BIGGER
PICTURE.ORG

Raise Your Voice and Join the Conversation about Diabetes. Take a Look at The Bigger Picture.
Vehicles for Youth-Led Diabetes Prevention Campaign

- Medically-curated workshops with health professionals (CVP) and poet mentors (YS).
- “Spoken word” video PSAs around key diabetes prevention targets created by Youth Speaks poets.
- Associated diabetes prevention toolkit for stakeholders.
- Live performances at events and conferences.
- School-based assemblies and workshops.
- Social media platforms.
Bigger Picture High School Assembly Presentation Improved Outcomes

Pre/post student assembly results (n=885)

- Agreed that DM2 is preventable (True/False): 92% (Post), 70% (Pre)
- Included environmental causes as influencing DM2 risk (Multi Choice): 83% (Post), 34% (Pre)
- "Cared a lot" about DM2 prevention (1-5 Likert): 59% (Post), 29% (Pre)

All p-values <0.001
Video PSA: *Perfect Soldiers* by Gabriel Cortez
Results to Date: High Levels of Reach

- 24 video PSAs (two Spanish, website in Spanish)
- >2,400 high school students from 15 public Bay Area schools
- 44 trained poet mentors from 8 poet workshops
- Scaled to Richmond and Stockton
- Partnered with 3 local health departments for their campaign
- Informed SSB policy
- >5000 health, education and community stakeholders
- > 1 million video hits
- Huff Post; IOM, Soda Summit, James Beard; UpWorthy; Food Farm Films Festival; In Defense of Food; APHA Spirit of 1848 Award; UCSF Excellence in Partnership Award; LCHC Young Champion for Latino Health
Open Truth was developed by Shape Up San Francisco, with funding from Metta Fund.

Big Soda, stop targeting me.
Your products hurt our community.

Big Soda, stop targeting me.
Your products hurt our community.

Big Soda says open happiness.
What's happy about diabetes?

Big Soda says open happiness.
What's happy about diabetes?

SUGARY DRINKS ARE MAKING US SICK
TAKE ACTION AT
OPEN TRUTH NOW.ORG

SUGARY DRINKS ARE MAKING US SICK
TAKE ACTION AT
OPEN TRUTH NOW.ORG

SUGARY DRINKS ARE MAKING US SICK
TAKE ACTION AT
OPEN TRUTH NOW.ORG

SUGARY DRINKS ARE MAKING US SICK
TAKE ACTION AT
OPEN TRUTH NOW.ORG
CANZILLA!
#DrinkDiabetes
#SodaKills
Video PSA: Chocolate Smile by Marje Kilpatrick
Video PSA: *Targets* by Obasi Davis
HOW CAN I GET INVOLVED?

- Upload your story
- Watch the PSA’s
- Request a School or Community Visit
- Download The Tool Kit
- Spread the Word via facebook, twitter, google
- Book us for a live performance
- Partner with us; support TBP
Summary

- Provided overview of recent work in chronic disease & HL:
  - Cleaning up the Medication Mess
  - Providing Self-Management Support
  - The Language and Literacy Tango
  - Translating Research into Policy
  - Challenged us to expand our focus to The Next Frontier: Improving Public Health Literacy