National Cancer Forum
Roundtable on Health Literacy

Health Literacy and Communication Strategies in Oncology

Two Sides of a Coin:
Cancer Prevention at a Urban Hospital in Washington, DC

Washington, DC
July 15, 2019

Elmer E. Huerta, MD, MPH

MedStar Washington Hospital Center
THE REALITY
People waiting for symptoms to appear

Extremely busy, illness-loaded, primary care system

They often use the emergency room...
In 2009, according to NHEA*, 3.1 percent of the nation’s nearly $2.5 trillion spent on health, or $77.2 billion, was spent on government public health activities.

*Office of the Actuary National Health Expenditure Accounts
Changing the Paradigm
To develop a health promotion/disease prevention-based system

How to convince people to seek medical care when asymptomatic?

To develop a less illness-loaded primary care system
How to go from...

That saturates a cancer health system with incurable, advanced cases

Advanced disease
to...

A cancer health system more focused on the care of early disease cases

Early disease
In order for that change to occur, one should understand that the frequency of cancer in a locality, not only depends on the biology of the tumor, but also on:

- Cancer control programs
- Laws
- Health policies
- Community health programs, and
- Individual behavior
In other words...
We should not concentrate only on the study of the tumor ...

Thyrosine-kinase

EGF  p53

Apoptosis  Angiogenesis

Oncogenes

Knowledge and Compassion Focused on You
But also on the **person** with the tumor...
Lack of information
Poverty
Fears
Fatalism
Lack of medical insurance
False beliefs
Language
Knowledge
Attitude
Behavior

Knowledge and Compassion *Focused on You*
How can we convince people that an ounce of prevention is worth a pound of cure?
I am convinced that coherent, consistent, media-based, public education programs need to be created.
An ethnically-sensitive, culturally-relevant, media-based community outreach program was progressively developed since 1989 following four basic principles:
Our Media Principles...

1. Use the media CONSISTENTLY

2. Develop COMPREHENSIVE health education programs

3. Use ALL MEDIA CHANNELS available TO the community

4. Be a TRUSTED MESSENGER
Media Tools

A. RADIO


2. Encendidos. Columnist. Monday-Wednesday-Friday. Two-hour program to Peru. RPP Noticias

3. Cuidando tu Salud. Saturday, 90-minute program to Peru. RPP Noticias

4. Rotativa Informativa. Daily five-minute segment to Peru. RPP Noticias
Broadcasting live from the Ciudad de Guatemala International Airport
B. TELEVISION

Medical correspondent for CNN en Espanol

*Directo a la Salud*. Weekly 5-minute segment

*Encuentro con la Salud*. Weekly 5-minute segment

*Breaking News*. 24/7 availability
Media Tools

Twitter: @drhuerta
Los pies también necesitan cuidados

¿Cómo reducir el riesgo en la salud?

El Dr. Elmer Huerta es Director del Preventorio del Instituto de Cáncer del MedStar Washington Hospital Center en Washington, DC y tiene una obsesión: traducir para las grandes mayorías la complicada información médica, expresándola en términos sencillos y de utilidad para el público. Con casi 30 años de trabajo médico y cuatro especialidades (medicina interna, oncología médica, prevención del cáncer y salud pública), el Dr. Huerta atiende pacientes en el hospital y se implica con diversas organizaciones de bienestar.
Dos problemas de salud que siguen sin solución

Un aumento en los casos de anemia en el país y el desastre de productos alimenticios con publicidad engañosos resultaron en los medios la semana pasada.

Los importantes retos de salud de los menores de 5 años son la insuficiencia crónica de hierro, la anemia y la desnutrición. En 2016, el 15,1% de la población menor de 5 años sufrió desnutrición crónica.

En el 2016, el 15,1% de la población menor de 5 años sufrió desnutrición crónica.

Los menores de 5 años son los niños de Puno (73,5%), Loreto (60,7%), Pasco (60,5%) y Ucayali (57,3%).

El Reglamento de la ley, que debió haber sido publicado en el 2016, nunca fue publicado. El Ministerio de Salud ha señalado que el primer mínimo federal de Crawford, destinado a efecto de la ley, nunca fue publicado.

Debido a que Chile entrela un desarrollo sostenible, depende de tener una renta saludable, aprobada en junio del 2015 una en forma de la alimentación saludable, implementa un sistema para clave para mejorar la salud mental, con el objetivo de claramente los derechos humanos de los niños, niñas y adolescentes.

El comercio (Peru)
After the public has been convinced to take preventive steps...
They need a place to go...
Creation of the Cancer Preventorium
SANATORIUM

NOUN: 1. An institution for the treatment of chronic diseases or for medically supervised recuperation. 2. A resort for improvement or maintenance of health, especially for convalescents. Also called sanitarium.

ETYMOLOGY: From neuter of Late Latin sanatorius, curative, from Latin sanatus past participle of sanare, to heal, from sanus, healthy.

In 1884 in New York, "Little Red", the first TB Sanatorium in the country was opened.
Interior view of “Little Red” New York 1884
PREVENTORIUM

A non-existent word in the dictionary
PREVENTORIUM

NOUN: 1. An institution for the prevention and early detection of chronic diseases or for medically supervised patient education. 2. A resort for maintenance of health, especially for people without evident illness.

Our proposed definition
...people of the future will visit “preventories” to receive health education, undergone cancer screening tests, and even engage in community activism...

Michael Shimkin, MD
ASCO Founding Member
Preventive Medicine, June 1975
The Preventorium has two main goals:

- To find and treat early asymptomatic conditions (cancer, diabetes, high blood pressure)
- To find and manage risk factors for those chronic conditions
The Washington Cancer Institute at MedStar Washington Hospital Center

Cancer Preventorium

✓ Date Started: July 27, 1994

✓ Patients Seen (as of 4/17/19): 37,174
GENDER:

Male: 11,435 (30%)
Female: 25,739 (70%)
Total 774 patients. Male 350 (45.2%) Female 424 (54.8%)

Ethnic group, new patients. Percent

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>US-born Hispanic</th>
<th>Foreign-born Hispanic</th>
<th>Not Hispanic</th>
<th>NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>3.3%</td>
<td>94.6%</td>
<td>0.3%</td>
<td></td>
</tr>
<tr>
<td>Foreign-born Hispanic</td>
<td>4.0%</td>
<td>95.3%</td>
<td>1.4%</td>
<td></td>
</tr>
<tr>
<td>Not Hispanic</td>
<td>1.1%</td>
<td>1.4%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>
Total 774 patients. Male 350 (45.2%) Female 424 (54.8%)

Age Range, New Patients. Percent

Age range (in years)  | Male | Female
---|---|---
<20 | 1.4 | 2.4
21-30 | 13.7 | 14.9
31-39 | 26.9 | 25.2
40-49 | 27.1 | 25.5
50-59 | 18.3 | 16.3
60-69 | 7.4 | 10.6
70-79 | 4.9 | 4.0
>80 | 0.3 | 0.9
NR | 0 | 0.2

MedStar Washington Hospital Center
Knowledge and Compassion Focused on You
Total 774 patients. Male 350 (45.2%) Female 424 (54.8%)

Educational Attainment Level, New Patients. Percent

- No school completed: 1.1%
- Primary education: 29.7%
- High school: 35.4%
- Some college: 16.6%
- Completed college: 12.0%
- NR: 0.3%

Knowledge and Compassion Focused on You

MedStar Washington Hospital Center
Total 774 patients. Male 350 (45.2%) Female 424 (54.8%)

Country of Origin, New Patients. Percent

- El Salvador: 26.9%
- Peru: 20.6%
- Bolivia: 12.8%
- Colombia: 3.1%
- Mexico: 8.3%
- Dominican Republic: 10.3%
- Central America: 4.5%
- South America: 5.1%
- Caribbean: 0.6%
- Europe: 0.2%
- Africa: 0.3%
- Asia: 0.2%
- NR: 3.7%

MedStar Washington Hospital Center

Knowledge and Compassion Focused on You
Total 774 patients. Male 350 (45.2%) Female 424 (54.8%)

Language Preference, New Patients. Percent

- Spanish: 92.9%
- English: 92.2%
- Either Spanish or English: 5.1% (Spanish) 5.0% (English)
- NR: 1.4% (Spanish) 2.6% (English)
- NR: 0.6 (Other) 0.2 (Other)
Working Not working / unemployed / retired Does not work because is a student NR

92.3 72.2 6.9 22.6 0.8 3.5 0 1.7

Employment During the Week Prior to Coming to the Clinic, New Patients. Percent

Total 774 patients. Male 350 (45.2%) Female 424 (54.8%)
Total 774 patients. Male 350 (45.2%) Female 424 (54.8%)

Years Living in the USA, New Patients. Percent

<table>
<thead>
<tr>
<th>Years</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
<td>4.3</td>
<td>8.5</td>
</tr>
<tr>
<td>1-5 years</td>
<td>5.4</td>
<td>9.7</td>
</tr>
<tr>
<td>6-10 years</td>
<td>24.3</td>
<td>26.9</td>
</tr>
<tr>
<td>11-20 years</td>
<td>35.4</td>
<td></td>
</tr>
<tr>
<td>&gt; 21 years</td>
<td>19.7</td>
<td>17.2</td>
</tr>
<tr>
<td>NR</td>
<td>10.9</td>
<td></td>
</tr>
</tbody>
</table>

<1 year 1-5 years 6-10 years 11-20 years > 21 years NR
Total 774 patients. Male 350 (45.2%) Female 424 (54.8%)

Insurance, New Patients. Percent

<table>
<thead>
<tr>
<th>Insurance Type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No insurance</td>
<td>80.6</td>
</tr>
<tr>
<td>Private</td>
<td>74.0</td>
</tr>
<tr>
<td>Government (Medicare, Medicaid)</td>
<td>8.6</td>
</tr>
<tr>
<td>NR</td>
<td>10.4</td>
</tr>
<tr>
<td>NR</td>
<td>2.0</td>
</tr>
<tr>
<td>NR</td>
<td>3.8</td>
</tr>
<tr>
<td>NR</td>
<td>8.8</td>
</tr>
<tr>
<td>NR</td>
<td>11.8</td>
</tr>
</tbody>
</table>
Total 774 patients . Male 350 (45.2%) Female 424 (54.8%)

Reasons for Visiting the Clinic, New Patients.

- No symptoms (check-up): 34.0%
- Symptoms present, believed to be cancer: 4.3%
- Symptoms present, not believed to be cancer: 59.4%
- Family history of cancer: 0.3%
- Second opinion: 0.6%
- NR: 1.4%

Knowledge and Compassion Focused on You

MedStar Washington Hospital Center
Total 774 patients. Male 350 (45.2%) Female 424 (54.8%)

“How did you hear about the clinic?” Percent

- Radio: Male 40.3%, Female 21.2%
- TV: Male 2.9%, Female 5.0%
- Friend/family: Male 47.1%, Female 61.5%
- Other: Male 0.9%, Female 0.5%
- NR: Male 8.8%, Female 11.8%
Theoretical framework: Diffusion of Innovation Model

Everett Rogers, PhD
The Washington Cancer Institute at Washington Hospital Center
Cancer Preventorium

Number of cases of cancer found, 1994-2017

<table>
<thead>
<tr>
<th>Organ</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>45</td>
</tr>
<tr>
<td>Cervix</td>
<td>13</td>
</tr>
<tr>
<td>Prostate</td>
<td>5</td>
</tr>
<tr>
<td>Colon</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>20</td>
</tr>
</tbody>
</table>

N=89
Preventorium Model

CHRONIC DISEASES PREVENTORIUM

COMMUNITY OUTREACH

PREVENTORIUM

NAVIGATION PROGRAM

“THE PRODUCT”

“THE STORE”

“CUSTOMER SERVICE”
DIVISION OF CANCER PREVENTION

Cancer Prevention Fellowship Program

2018 Summer Curriculum in Cancer Prevention

PRINCIPLES AND PRACTICE OF CANCER PREVENTION AND CONTROL COURSE

JULY 9 - AUGUST 3, 2018
## Module 11: The Cancer Preventorium

**Friday, August 3**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 am - 10:15 am</td>
<td>Cancer Prevention in the 21st Century: The Cancer Preventorium Idea</td>
<td>Elmer Huerta, MD, MPH</td>
</tr>
<tr>
<td>10:15 am - 10:30 am</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>10:30 am - 11:45 am</td>
<td>Closing Remarks: Awards &amp; Take Home Message</td>
<td>Hala Azzam, PhD, MPH, CPH, CPLP</td>
</tr>
<tr>
<td>12:00 pm - 3:30 pm</td>
<td>Tour of the Cancer Preventorium; MedStar Washington Hospital Center, Washington, DC <em>(Optional Activity – Limited to 10 Participants)</em></td>
<td>Elmer Huerta, MD, MPH</td>
</tr>
</tbody>
</table>
One side of the coin is then…

Convincing thousands of people who are poor and uninsured to pay an out-of-pocket fee for a preventative medical service…

Knowledge and Compassion Focused on You
The other side of the coin is...

Finding that 99% of patients with advanced breast cancer seen at an urban hospital do have health insurance...
### Stage III-IV Breast Cancer in the Neighborhood

All Breast Cancer Cases seen at MWHC by Stage. 2006-2015

<table>
<thead>
<tr>
<th>Stage</th>
<th>Number</th>
<th>MWHC Data (percent)</th>
<th>National Data (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-II</td>
<td>1621</td>
<td>74.7</td>
<td>77.5%</td>
</tr>
<tr>
<td>III-IV</td>
<td>494</td>
<td>22.7</td>
<td>10.5</td>
</tr>
<tr>
<td>Unknown</td>
<td>54</td>
<td>2.6</td>
<td>12</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2169</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>


[http://jco.ascopubs.org/content/25/13/1683/T1.expansion.html](http://jco.ascopubs.org/content/25/13/1683/T1.expansion.html)
## Stage III-IV Breast Cancer in the Neighborhood

### Stage III-IV Cases by State of Residence. 2006-2015 (N=494)

<table>
<thead>
<tr>
<th>State</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>269</td>
<td>54.5</td>
</tr>
<tr>
<td>MD</td>
<td>202</td>
<td>40.9</td>
</tr>
<tr>
<td>VA</td>
<td>17</td>
<td>3.4</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>494</td>
<td>100</td>
</tr>
</tbody>
</table>
“Stage III-IV Breast Cancer in the Neighborhood”
Stage III-IV Cases by Ward of Residence in Washington, DC.
2006-2015 (N=269)

<table>
<thead>
<tr>
<th>Ward</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 5*</td>
<td>71</td>
<td>26.4</td>
</tr>
<tr>
<td>Ward 7</td>
<td>47</td>
<td>17.5</td>
</tr>
<tr>
<td>Ward 8</td>
<td>48</td>
<td>17.9</td>
</tr>
<tr>
<td>Other Wards</td>
<td>103</td>
<td>38.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>269</td>
<td>100</td>
</tr>
</tbody>
</table>

* Based on location and need, MedStar Washington Hospital Center and the MedStar Health Corporate Community Health Department defined Ward 5 as the target area for Community Health Outreach Programs.

62% of patients (166/269) with Stage III-IV breast cancer seen at MWHC live in Wards 5-7-8.
**Stage III-IV Breast Cancer in the Neighborhood**

Stage III-IV Cases in Wards 5-7-8 by Health Insurance Coverage.
2006-2015 (N=166)

<table>
<thead>
<tr>
<th>Type of Insurance</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>32</td>
<td>19</td>
</tr>
<tr>
<td>Medicare</td>
<td>68</td>
<td>41</td>
</tr>
<tr>
<td>Private</td>
<td>56</td>
<td>34</td>
</tr>
<tr>
<td>Not specified</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Uninsured</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>166</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

99% of patients with advanced breast cancer living in Wards 5-7-8 do have health insurance.
“Stage III-IV Breast Cancer in the Neighborhood”

Stage III-IV Cases in Ward 5-7-8 by Race. 2006-2015 (N=166)

<table>
<thead>
<tr>
<th>Ward</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>156</td>
<td>94</td>
</tr>
<tr>
<td>White</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>166</td>
<td>100</td>
</tr>
</tbody>
</table>
Original map by John Snow showing the clusters of cholera cases in the London epidemic of 1854
Every pin represents a woman living in Washington DC, who was diagnosed with Stage III-IV breast cancer.
Colorectal Cancer
Stage II-IV
2006-2015
610 cases
Breast Cancer Prevention in the Neighborhood: Phase I

To explore possible reasons that explain why women who live in Ward 5 are suffering from late stage/advanced breast cancer even though they have health insurance
Why do you feel that women who live in Ward 5 are suffering from late stage/advanced breast cancer even though they have health insurance?

1091 questionnaires / 1336 quotes

Most frequent responses

- Fear: 303
- Personal Factors: 314
- Lack of Knowledge: 185
- I don't Know: 152
- Cultural/Social Factors: 94
- Mammogram Factors: 94
- Physician Factors: 36
- Lack of Access: 40
- Fatalism: 6
- Left Blank: 112

MedStar Washington Hospital Center

Knowledge and Compassion Focused on You
Breast Cancer Prevention in the Neighborhood: Phase II

An educational intervention in the community with messages based on Phase I study findings
What would make getting a mammogram easier for you?

397 questionnaires. 327 quotes

Most Frequent Responses

- **IMPROVE ACCESS**
  - 71

- **EDUCATION**
  - 53

- **PHYSICIAN SUPPORT**
  - 32

- **NAVIGATION**
  - 23

- **PERSONAL RESPONSIBILITY**
  - 22

- **TRANSPORTATION**
  - 21

- **LESS PAINFUL EXAM**
  - 61

- **NO CURRENT BARRIER**
  - 44
Breast Cancer Prevention in the Neighborhood: Phase III-IV (ongoing)

Expanding Educational Interventions to Wards 7 and 8
Colon Cancer Prevention in the Neighborhood

- Media Outreach
- Community Outreach
- Political Partnership
- Primary Care Partnership
- Government Insurance Partnership
- Private Insurance Partnership

MedStar Washington Hospital Center

Knowledge and Compassion Focused on You
Latinos

Common characteristics
- Poverty
- Fear
- Fatalism

Differential characteristics
- Culture
- Language
- Immigration status
- Health insurance coverage

28 years exposure to a daily media-based health education program

Ward 5 African American

No consistent educational programs
I still consider good information to be the best medicine

Michael E. DeBakey, MD
Inventor, Surgeon, Educator,
(1908-2008)
Knowledge exists in two forms—lifeless, stored in books—and alive in the consciousness of men.

The second form... is the essential one.

Albert Einstein
The Ivory Tower of Science
Thank you