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# Hep B Hangout: Culturally Integrated Education Material: Photonovel

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# Hepatocellular Carcinoma (HCC) from a Global Perspective

- Ranks 4<sup>th</sup> in cancer incidence and 3<sup>rd</sup> in cancer mortality
- >80% of HCC occurs in the developing world
- HCC is largely preventable (80% caused by chronic HBV, 15% chronic HCV)

# HBV Infection

- 2 billion people worldwide infected.
- >400 million HBV carriers worldwide
- 1.4 million people chronically infected in U.S.
- 46,000 Americans were newly infected with hepatitis B in U.S.
- 1 out of 12 Asian Americans has chronic hepatitis B

# Health Disparity of HBV Infection

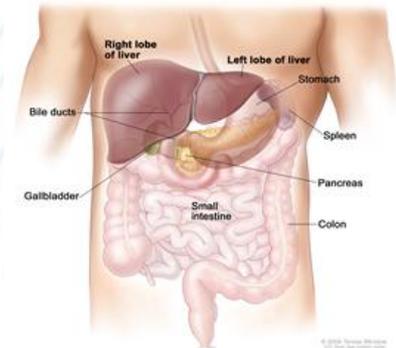
Maternal race/ethnicity	2002 Births	Estimated maternal HBsAg Prevalence	Estimated Births to HBsAg positive women
White, non-Hispanic	2,298,156	0.13%	2,988
Hispanic	876,642	0.09%	789
African American	593,691	0.5%	2,968
<b>Asian Pacific Islander</b>			
<b>Foreign born</b>	<b>175,264</b>	<b>8.9%</b>	<b>15,598</b>
<b>US born</b>	<b>35,643</b>	<b>1.4%</b>	<b>499</b>
Other	42,330	0.5%	212
Total	4,021,726		23,054

1. Asian Liver center <http://liver.stanford.edu>

2. Draft ACIP hepatitis B recommendations, CDC 2005

# Introduction (1)

- Liver cancer is **SECOND** in mortality and **FORTH** in incidence among all cancers for Asian Americans.
- Incidence Rate of liver cancer among males (per 100,000)
  - **Vietnamese Americans: 41.8**
  - **Korean Americans: 24.8**
  - **Chinese Americans: 20.9**
  - **White: 3.7**



# Introduction (2)

- HBV infection contributes to 80% of liver cancer cases.
- Asian Americans are 20 to 30 times more likely to have HBV infection compared to other ethnic groups.
- Sustainable hepatitis B (Hep B) screening and vaccination programs are necessary to reduce liver cancer incidence among Asian Americans.



# Low Screening & Vaccination among Asian Americans



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- Factors associated with low Hep B Screening and vaccination rate among Asian Americans:
  - Low awareness of HBV infection
  - Limited English fluency and low health literacy
  - Limited access to care
  - Cultural barriers, such as spiritual belief (e.g., believing that suffering is an integral part of life among Buddhists), and less emphasis on prevention.

Culturally and linguistically tailored education programs to increase Hep B knowledge and communication skills with physicians are needed for Asian Americans.

# Content Analysis

- Collect all the existing brochure related to HBV infection and liver cancer
  - National Cancer Institute (English)
  - Stanford Asian Liver Center (English, Korean, Vietnamese, Chinese)
  - Bristol Myers Squibb (English, Korean, Vietnamese, Chinese)
  - Gilead (English)
  - Hepatitis Foundation International (English, Asian Languages)
  - Hepatitis B Initiative - DC (English, Korean)
- Do content analysis
- Think about the problems of existing material
- Think about some story line based on your own culture

# Current HBV Brochures

- Culturally-tailored interventions that target specific ethnic groups are needed

**EARLY DETECTION IS KEY**  
It is important for you and your family to get tested for HBV because hepatitis B is one of the greatest health threats for Asians.

**» Get Tested**  
Ask your doctor for these blood tests:  
**Hepatitis B surface antigen (HBsAg):** Tells if you have chronic hepatitis B (also known as being a hepatitis B carrier).  
**Hepatitis B surface antibody (anti-HBs):** Tells if you are protected against HBV.  
Only the HBsAg blood test can tell if you have chronic hepatitis B.



**» Get Vaccinated**  
If both your HBsAg and anti-HBs blood tests are negative, then you are not protected and should get vaccinated. Make sure your baby also gets vaccinated at birth.  
The hepatitis B vaccine is a 3 shot series given over 6 months that can protect you for life.  
The vaccine is so effective at preventing HBV and liver cancer that it is called "the first anti-cancer vaccine" by the World Health Organization.

**Unite against HBV.**  
The Jade Ribbon is folded like the Chinese character for people "人" to symbolize the united voices of those fighting hepatitis B and liver cancer worldwide.




For more information visit <http://liver.stanford.edu>

**KNOW  
HBV**



**What every Asian and Pacific Islander should know about hepatitis B and liver cancer**

© 2006 ASIAN LIVER CENTER

**Hãy bảo vệ chính bạn và em bé của bạn với "thuốc chích ngừa chống bệnh ung thư" đầu tiên**

**Nếu bạn chưa bị bệnh, hãy nên chích ngừa ngay**

Bệnh viêm gan B vẫn có thể được truyền nhiễm qua sự giao hợp mà không có bảo vệ và qua máu đã bị nhiễm bệnh (dùng chung bơm chích dành răng, dao cạo râu, hay là kim chích dùng cho việc xăm mình hay xô lông tại).

Một chích ngừa bằng 3 mũi thuốc trong vòng 6 tháng rất an toàn, ngay cả trong khi bạn đang có thai. Thuốc chích ngừa viêm gan B rất hữu hiệu để ngừa bệnh viêm gan B và bệnh ung thư gan, đến nỗi nó được gọi là "thuốc chích ngừa chống bệnh ung thư" đầu tiên.

**Hãy bảo đảm rằng em bé của bạn được chích ngừa lúc khi sinh**

Từ năm 1991, trên toàn nước Mỹ, tất cả bé sơ sinh đều được khuyến là nên được chích ngừa bệnh viêm gan B. Ba mũi thuốc chích ngừa có thể bảo vệ em bé của bạn khỏi bị bệnh viêm gan B suốt đời, nhờ thế sẽ giảm được nguy cơ bị bệnh ung thư gan và hư hại gan trong tương lai.

Thời gian	Em bé nên được chích ngừa
Khi sinh	Chích ngừa viêm gan B lần thứ nhất
1-2 tháng	Chích ngừa viêm gan B lần thứ hai
6 tháng	Chích ngừa viêm gan B lần thứ ba

Thuốc chích ngừa rất an toàn, ngay cả cho các bé sinh thiếu tháng.



**Đoàn kết chống viêm gan B.**

Không màu cảm thach (Jade Ribbon) tựa như chữ người tiếng Tàu "人" để tượng trưng cho tiếng nói đoàn kết của những người chống bệnh viêm gan B và bệnh ung thư gan trên toàn cầu.



**Asian Liver Center at Stanford University**  
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**Bệnh viêm gan B và Mẹ tương lai**



Source: Asian Cancer Liver Center

# What Is A Photonovel?

## Components

- **Format:** similar to a comic book, but uses photos and dialogues of target population instead of cartoon drawings;
- **Storyline:** common experience from that community;
- **Tailored to the culture, ethnicity, race, gender, language and class status.**

## Examples



From <http://photonovel2009.blogspot.com/>

<http://photonovel2008.blogspot.com/>

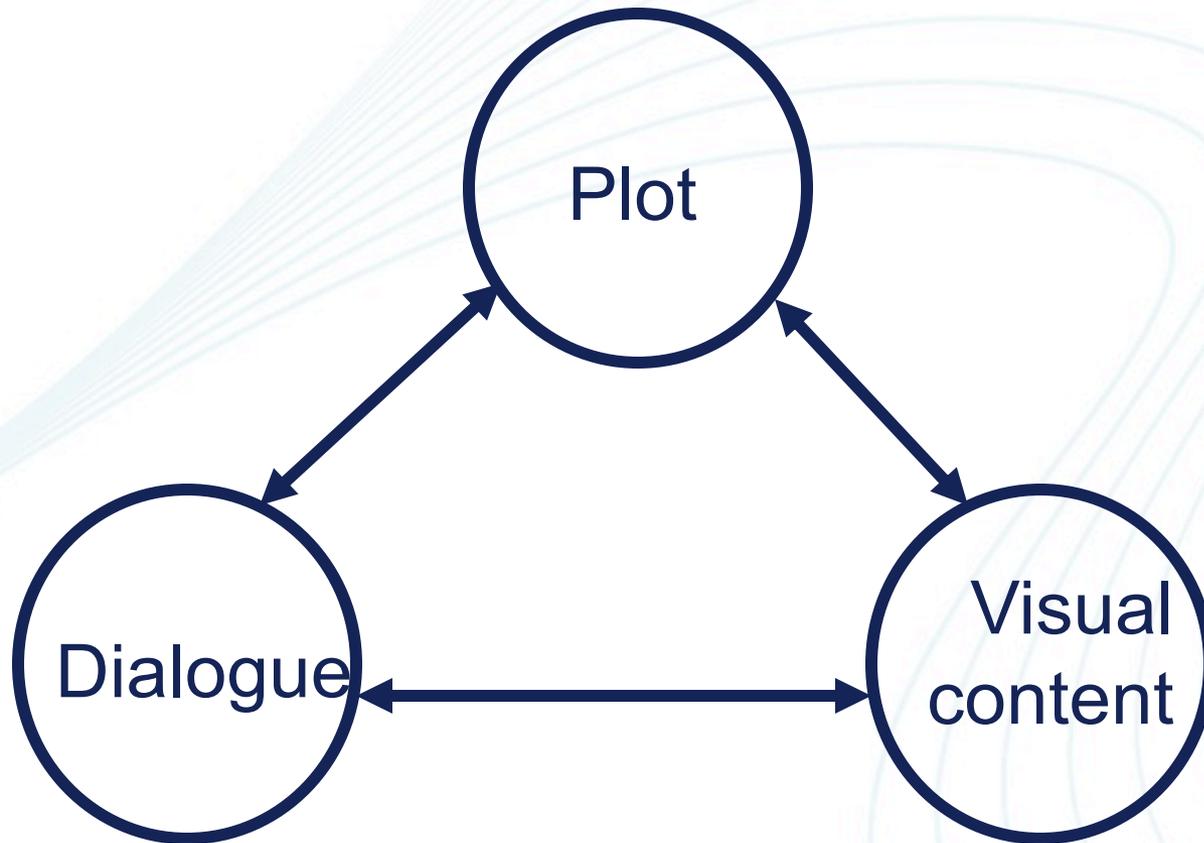
Educational products from the English Department at Escola Móbile

**FEW STUDIES HAVE EXAMINED THE  
EFFECTIVENESS OF A PHOTONovel IN  
PROMOTING HEALTH.**

# Innovative approach using Photonovel

- Participatory-based action research method (Freire 1973)
  - The most successful educational experiences are those that involve and engage the learner using Freire's problem-solving educational methods (Roter et al., 1981).

# Components of Photonovel





# Photonovel (dialogue and photos)

- Non-traditional educational materials
- Format of comic book but substitute photos of real people and places for cartoon drawing
- Dialogue is placed in word bubbles to transmit a dramatic story line, generated by the participants
- The themes from everyday experience; dialogue from people's actual speech

# Plot

- Narrative events with the emphasis on cause and effect
- Easily understood
- Keep the cast to a minimum (<5)
- Clarify scene changes
- Limited number of pages (<16)
- Try to sell idea

# Dialogue

- Open discussion between the characters
- Clarity
  - Use as few words as possible
- Familiar words and expressions
- Express ideas with narrative inserts
  - To shorten the story
  - To clarify the message



# Visual Content

- Motivates the reader to pick up the photonovel in the first place (i.e., cover)
- Photograph
- Drawings



# Focus Groups & Exploratory Study

- Eight focus groups were conducted to investigate knowledge, stigma, perceived risk, and barriers of Hep B and liver cancer.

Focus group language	Chinese	Korean	Vietnamese	English
# of focus groups	2	2	2	2

- The development of photonovels incorporated findings from focus groups.
- Products were piloted tested with lay health persons from each ethnic groups and community advisory board and revised correspondingly.
- Process evaluation was collected by mails one-month after the intervention.

# Findings from Focus Groups

## Chinese

- Strong stigma associated with Hep B
- Having a pamphlet on Hep B in hand would make others think they are Hep B carriers.
- Low awareness of Hep B prevention and risk factors.

## Korean

- Heavy reliance on alternative medicines such as herbal medicines and supplements.
- Fate and personal stress was thought to be related to have liver cancer.
- Low awareness of cancer prevention.

## Vietnamese

- Stigma associated with Hep B: an unlucky thing to talk about hepatitis B and liver cancer.
- Younger people have better access to medical information.
- Knowledge about prevention of Hep B was limited even among young generations.

# Development of Photonovels

- **Storyline** was developed from the themes emerged from the focus group.

- **Actors and Actresses**

Ethnic group	Chinese	Korean	Vietnamese
Actors/actress recruitment	Chinese students from UMD	Church members in Anne Arundel County	nail salon workers

- **The doctor** in the photonovel was a Chinese physician who had been working for hepatitis B advocacy and known to Asian community.
- All **pictures** were taken by the research team with the help of community people.
- **The settings** of the story were local places such as nail salons, personal residence, schools, parks, and doctor's offices.
- Epidemiologic statistics and facts were presented in "**fact boxes**" separate from the main storylines.

# Storylines of the Photonovels: Chinese

Storyline	Cultural factors being conveyed
<ul style="list-style-type: none"><li>•A young Chinese couple is about to get married while the bride confesses that she has chronic Hep B. The groom is shocked.</li><li>•The couple are advised by a family member to see the doctor.</li><li>•They find out that the groom is not infected, but needs vaccination.</li><li>•Treatment information and vaccination are given to the couple.</li><li>•The couple are glad to know that patients with chronic Hep B can live a normal life with proper treatments. They get married happily.</li></ul>	<ul style="list-style-type: none"><li>•Marriage setting might attenuate the stigma against Hep B and its pamphlet.</li><li>•Family involvement</li><li>•Low awareness of Hep B and liver cancer prevention.</li></ul>

# Storylines of the Photonovels: Korean



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Storyline	Cultural factors being conveyed
<ul style="list-style-type: none"><li>•A typical Korean immigrant family lives in the U.S. The parents rely heavily on oriental medicine and have wrong beliefs about Western medicine.</li><li>•The father is shocked to learn that his brother has liver cancer caused by chronic hepatitis B.</li><li>•The son urges his parents to do a screening since they have a family history of hepatitis B and liver cancer.</li><li>•It turns out that the father is infected and he gets treatment information.</li></ul>	<ul style="list-style-type: none"><li>•Reliance on supplements.</li><li>•Family involvement.</li><li>•Low awareness of risk factors, such as family history.</li></ul>

# Storylines of the Photonovels: Vietnamese



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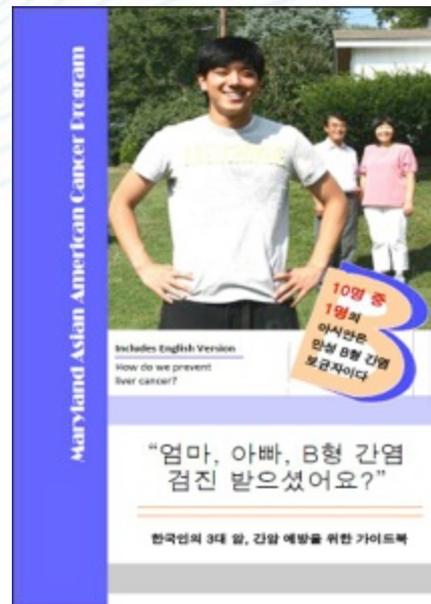
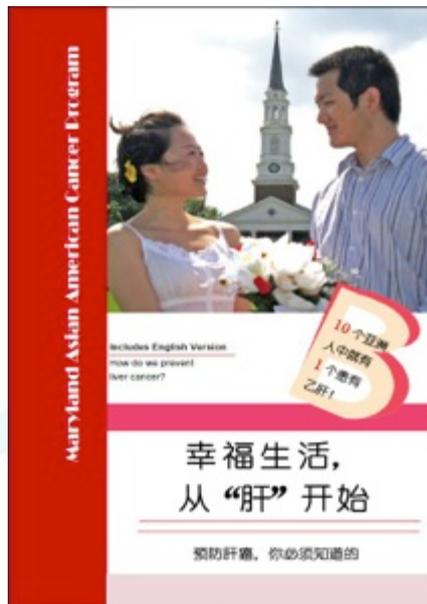
Storyline	Cultural factors being conveyed
<ul style="list-style-type: none"><li>•A young immigrant couple runs a nail salon business in the U.S.</li><li>•The wife is discussing Hep B with her aunt triggered by the news that a celebrity dies of liver cancer.</li><li>•The wife thinks it is unlucky to have the conversation.</li><li>•She finds out her husband used to live with a roommate who is infected with Hep B.</li><li>•The couple sees the doctor and finds out the husband is infected.</li><li>•Treatment and vaccination information is given to the couple.</li></ul>	<ul style="list-style-type: none"><li>•Unlucky to talk about the disease;</li><li>•Nail salon workers.</li><li>•Low awareness of transmission of Hep B.</li></ul>

# Pilot Test

- The photonovels were translated into Chinese/Korean/Vietnamese and tested in the community and discussed with eight community advisory board members.
- Key questions included:
  - Storyline (cultural relevancy);
  - Actors and actresses (familiarity to the community and their acting skills);
  - Understandability;
  - Size, format, color, and overall design of the material;
  - Fact box contents (understandability).



# Photonovel



<http://www.maacp.org/MAACP/Resources.html>

[http://www.maacp.org/MAACP/Resources\\_files/photonovel\\_Vietamese.pdf](http://www.maacp.org/MAACP/Resources_files/photonovel_Vietamese.pdf)



## How Are Photonovels Used in the Intervention?

- Intervention: a community-based participatory research (CBPR)
- The intervention goal was to
  - improve knowledge about Hep B/liver cancer;
  - increase screening among Asian Americans.
- The intervention consists of:
  - Pre-test;
  - A PowerPoint presentation with a role-play video on doctor-patient communication, and Q & A;
  - Immediate post-test;
  - **Take-home photonovels;**
  - **Process evaluation on photonovels at one-month follow-ups.**
  - Post-test on knowledge and behavior change at six-month follow-ups.

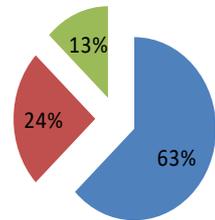


Criteria	Questions
<u>Material test</u>	
Understandability	Is it easy to understand? Does it use medical jargon?
Contents	Is the information useful to the targeted population?
Visual Appeal	Is layout, design, quality of paper, size of brochure, storyline attractive?
Cultural relevancy	Are the information/contents relevant to the target population? Do the readers feel ownership?
<u>Attitude and behavior test</u>	
Behavior change	Did you recommend the photonovel to others? How many? To whom?
Self efficacy	Did you become confident to get tested for HBV after reading the photonovel?
Intention	Do you intend to get tested for HBV within five months after reading the photonovel?

# Results from Process Evaluation (n=347)

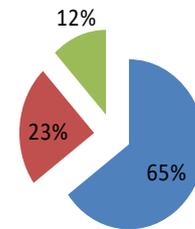
## Information helpful?

- Strong agree
- Agree
- Neutral/Disagree/Strongly disagree



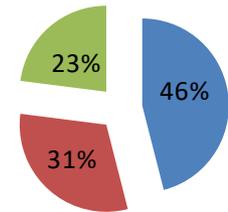
## A good teaching tool?

- Strong agree
- Agree
- Neutral/Disagree/Strongly disagree



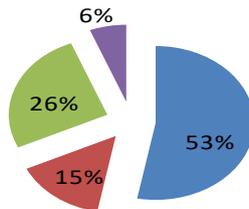
## Story written by someone knows the community

- Strongly agree
- Agree
- Neutral/Disagree/Strongly disagree



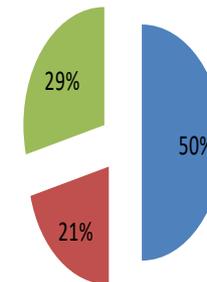
## Intend to do a screening within 5 month after reading the photonovel?

- Yes
- No



## Confident to get screening after reading photonovel?

- Very confident
- Confident
- Neutral/little confident/not at all confident





## Conclusion (1)

- Our photonovels successfully reached most of our target population.
  - Response rate: 87%; Among the responded, 94% reported to have read it
- Majority of participants strongly agreed or agreed:
  - Cancer information in photonovel was helpful
  - Photonovel was a good teaching tool
  - Story was written by someone who knows the community
- About half of the participants intend to have HBV screening in next 5 months or confident to get HBV screening after reading photonovel

## Conclusion (2)

- Overall evaluation of the photonovel was high with an appropriate level of understandability and cultural relevance to our target population.
- Photonovel may serve as a good health communication and educational tool for Asian Americans.

*“One of friends did hepatitis B testing after reading photonovel, so I think this is helpful.”*

*“This brochure gave me good information about hepatitis B testing and risk. The story is realistic.”*

*(Feedback from our participant on the process evaluation)*

# Publication

- Philbin MM, Erby LAH, Lee S, Juon HS. (2012). Hepatitis B and liver cancer among three Asian American sub-groups: A focus group inquiry. Journal of Immigrant and Minority Health, 14, 858-68.
- Lee S, Yoon H, Chen L, Juon HS. (2013). Culturally appropriate Photonoel development and process evaluation for hepatitis B prevention in Chinese, Korean, and Vietnamese American communities. Health Education and Behavior, 40(6), 694-703.

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