

# Intervention IP-061: Community-Based Participatory and Multilevel Intervention to Enhance Hepatitis B Virus Screening and Vaccination in Underserved Korean Americans

## Summary

Korean Americans have low rates of Hepatitis B (HBV) screening and vaccination. A cluster-randomized trial involving 32 Korean churches and 1834 adults found that a multi-level intervention including interactive group education, patient navigation, and engagement of health care providers was superior to general cancer education in HBV screening rates (92.5% intervention vs 5.5% control), 3-series HBV vaccination completion rates (84% intervention vs 17.6% control), and overall screening and vaccination completion rates (87% intervention vs 3.8% control).

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## Overview

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### **Purpose of Intervention:**

To evaluate the efficacy of a community-based participatory intervention program in improving hepatitis B virus (HBV) screening and vaccination among Korean Americans who were not previously screened

### **Intervention Type:**

Research-Tested — *Interventions with strong methodological rigor that have demonstrated short-term or long-term positive effects on one or more targeted health outcomes to improve minority health and/or health disparities through quantitative measures; Studies have a control or comparison group and are published in a peer-review journal; No pilot, demonstration or feasibility studies.*

## Intervention Details

### **Intervention was Primarily Driven, Led, or Managed by:**

Both Community and Academic/Clinical Researchers

### **Citations:**

- Ma GX, Lee MM, Tan Y, Hanlon AL, Feng Z, Shireman TI, Rhee J, Wei Z, Wong F, Koh HS, Kim C, York W. Efficacy of a community-based participatory and multilevel intervention to enhance hepatitis B virus screening and vaccination in underserved Korean Americans. *Cancer*. 2018 Mar 1;124(5):973-982. Epub

2017 Nov 13.

Relevance: Main Intervention, Post-Intervention Outcomes

**Adaptation of Another Research-based Intervention:**

No

**Contact Information**

**Primary Contact Affiliation:**

Center for Asian Health, Lewis Katz School of Medicine, Temple University, Philadelphia, PA 1

**Intervention URL:**

<https://pubmed.ncbi.nlm.nih.gov/29131316/>

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**Results**

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**Intention**

**Improve minority health or the health of other populations with health disparities (e.g. rural populations, populations with low SES)**

**Intervention Primary Outcome:**

HBV screening rates at 6-month follow-up, 3-series HBV vaccination completion rates, overall high screening and vaccination completion rates

**Intervention Secondary Outcome:**

None

**Key Findings:**

Key findings of the intervention include significant intervention effects, as participants showed increased screening and vaccination completion rates. There was also increased vaccination rates of those with no immunity with over 80% receiving all three vaccines. Multi-level intervention developed through community participatory processes was superior to general cancer education.

**Statistical Method Used:**

The statistical methods used to analyze the data included multivariate mixed-effect logistic regression analysis and Rao-Scott chi-square test.

**Evaluations and Assessments**

**Were Any of the Following Assessments Conducted (Economic Evaluation, Needs Assessment, Process Evaluation)?:**

Yes

- **Process Evaluation:** Survey and key informant interviews were conducted to assess community-based participatory research (CBPR) practice and evaluate alignment with CBPR principles.

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## Demographic and Implementation Description

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### Diseases, Disorders, or Conditions:

Hepatitis B

### Race/Ethnicity:

Asian

### Populations with Health Disparities:

Racial and Ethnic Minority Populations

### Age:

Adults

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## Socio-demographics / Population Characteristics

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### Community Type:

Suburban, Urban / Inner City

### Other Populations with Health Disparities:

Unspecified

### Geographic Location:

New Jersey, Pennsylvania

### Socio-Economic Status:

Unspecified

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## Minority Health and Health Disparities Research Framework

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|                   |                              | Levels of Influence |               |           |          |
|-------------------|------------------------------|---------------------|---------------|-----------|----------|
|                   |                              | Individual          | Interpersonal | Community | Societal |
| Determinant Types | Biological                   |                     |               |           |          |
|                   | Behavioral                   | ✓                   | ✓             | ✓         |          |
|                   | Physical / Built Environment | ✓                   | ✓             | ✓         |          |
|                   | Sociocultural Environment    | ✓                   | ✓             | ✓         |          |
|                   | Health Care System           | ✓                   | ✓             | ✓         |          |

## Community Involvement

The community's role in different areas of the Intervention (Choices are "No Role", "Participation", and "Leadership"):

**Design:**

Participation

**Dissemination:**

Participation

**Evaluation:**

Participation

**Implementation:**

Participation

**Outreach:**

Leadership

**Planning :**

Participation

**Recruitment:**

Leadership

**Sustainability:**

Leadership

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## Characteristics and Implementation

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**Intervention Focus Area:**

Behavior Change, Patient-Clinician Communication, Quality Improvement or Organizational Change

**Disease Continuum:**

Primary Prevention, Secondary Prevention, Treatment

**Delivery Setting:**

Clinic / Health Care Facility, Houses of Worship

**Mode of Delivery:**

In-person

**Who delivered the Intervention?:**

Community Health Worker/Promoters, Health Educator, Healthcare Professional (Physician, Nurse, Technician)

**Conceptual Framework****Intervention Theory:**

Health Belief Model, Social Cognitive / Social Learning Theory

**Intervention Framework:**

Community Organization / Community Building

**Implementation****Intervention Study Design:**

Cluster Randomized Controlled Trial

**Targeted Intervention Sample Size:**

1834

**Actual Intervention Sample Size:**

1834

**Start Year:**

2010

**End Year:**

2015

**Intervention Exposures****Duration of Intervention/How Long it Lasted:**

10-12 months

**Frequency of Intervention Delivery:**

Frequency of intervention was 3-5 times which included screening and three times vaccine, as needed.

**Number of Sessions/Meetings/Visits/Interactions:**

1-2 Sessions

**Average Length of Each Session/Meeting/Visit/Interaction:**

1-2 Hours

**Format of Delivery:**

Dyad/Group of two (e.g. participant & partner; mother & child), Group (e.g. Community leaders), Individual

**Highest Reading Level of Intervention Materials Provided to Participants:**

Grade 6-7

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## **Impact, Lessons, Components**

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**Produced an impact or change beyond the primary or secondary outcome:**

Yes

Community capacity building through the CBPR approach for intervention effects sustained for future studies.

**Essential Aspects for Success:**

Partnership and trust

**Intervention Impact:**

Community capacity building through the CBPR approach for intervention effects sustained for future studies.

## **Lessons Learned**

**Key Lessons Learned and/or Things That Could be Changed or Done Differently:**

The findings demonstrate that the multilevel CBPR intervention components were effective in overcoming multilevel barriers. Future studies would include more qualitative successful stories from the participants.

## **Insights Gained During Implementation**

| <b>Insight Category</b>         | <b>Insight Description</b>  |
|---------------------------------|---|
| Training / Technical Assistance | Training and capacity building for collaborating churches are essential to quality control.   |
| Staffing                        | Bilingual staff is essential to reduce barriers to effective intervention delivery.   |
| Recruitment                     | Regular church attendance among Korean-American immigrants has been consistently high, and churches are strong candidates as ideal venues for implementing health programs among other community-based organizations in the Korean American community, including recruitment support. |

## **Intervention Components**

### **Intervention Has Multiple Components:**

Yes

### **Assessed Each Unique Contribution:**

No

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## **Products, Materials, and Funding**

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### **Expertise, Partnerships, and Funding Sources**

|  | <b>Used for Implementation</b> | <b>Needed for Sustainability</b> |
|--|--------------------------------|----------------------------------|
| <b>Expertise</b>   |                                |                                  |
| <b>Community mobilization, community organization/coalition building</b>   | Yes                            | Yes                              |
| <b>Partnerships</b>  |                                |                                  |
| <b>Community groups (e.g. faith-based organizations, barbershops, beauty-salons, laundromats, food markets, community centers, cultural associations, tribal groups)</b> | Yes                            | Yes                              |
| <b>Funding Sources</b>   |                                |                                  |
| <b>Public funding (e.g., federal, state or local government)</b>   | Yes                            | No                               |

## **Product/Material/Tools**

|  | Tailored For Language | Language(s) if other than English | Material  |
|--|-----------------------|-----------------------------------|---|
| <b>Outreach/Recruitment Tools</b>                          |                       |                                   |   |
| Publicity Materials (e.g. Posters, Flyers, Press Releases) | Yes                   | Korean                            | Attachment available for request at the bottom of the page. |
| Publicity Materials (e.g. Posters, Flyers, Press Releases) | No                    |                                   | Attachment available for request at the bottom of the page. |
| <b>Participant Educational Tools</b>                       |                       |                                   |   |
| Brochures/Factsheets/Pamphlets                             | No                    |                                   | Attachment available for request at the bottom of the page. |
| Brochures/Factsheets/Pamphlets                             | Yes                   | Korean                            | Attachment available for request at the bottom of the page. |
| <b>Measurement Tools</b>                                   |                       |                                   |   |
| Non-Standardized Instruments/Surveys/Questionnaires        | No                    |                                   | Attachment available for request at the bottom of the page. |
| Non-Standardized Instruments/Surveys/Questionnaires        | Yes                   | Korean                            | Attachment available for request at the bottom of the page. |

## Implementation Materials and Products

| Material                                       |
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| <b>Implementation/Delivery Materials</b>       |
| No Implementation/Delivery Materials provided. |
| <b>Implementation/Output Materials</b>         |
| No Implementation/Output Materials provided.   |

## Articles Related to Submitted Intervention

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|----------------------------------|
| <b>Article</b>                   |
| <b>Reports/Monographs</b>        |
| No Reports/Monographs provided.  |
| <b>Additional Articles</b>       |
| No Additional Articles provided. |

## **Materials Available for Request**

- 1. Korean Welcome and Introduction and Overview-re.pdf
- 1 English Welcome and Introduction and Overview-re.pdf
- 3. English Overview of Hepatitis B, culture Beliefs and Barriers.pdf
- 3.Korean Overview of Hepatitis B, Beliefs and Barriers.pdf
- English\_HBV Study Tool - PI Grace Ma.pdf
- HBV Study Tool Korean- PI Grace Ma[83].doc