HDPulse An Ecosystem of Health Disparities and Specific Populations Health Resources

Intervention IP-122: Ending the transmission of HBV from the perinatal period throughout the lifespan (abbreviated as “END B”)

The END B intervention was designed to prevent chronic Hepatitis B (HBV) transmission and improve health outcomes among Asian populations (age 1-18+), focusing on addressing health disparities. The intervention enhanced HBV screening and prevention through in-person education sessions, culturally tailored materials (e.g., brochures and PowerPoints), and patient navigator follow-ups. The intervention increased HBV screening rates and improved knowledge among participants, and its effectiveness was highlighted in three PubMed-indexed publications.

Overview

Purpose of Intervention:

The purpose of the END B intervention is to spare the next generation of Sacramento patients enrolled in the Health and Life Organization (HALO) from preventable hepatitis B infection.

Intervention Type:

Advanced — *Pilot, demonstration or feasibility interventions with adequate methodological rigor that have demonstrated short-term or long-term positive effects on one or more targeted outcomes to improve minority health and/or health disparities through quantitative measures; Studies have a comparison group and are published in a peer-review journal.*

Intervention Details

Intervention was Primarily Driven, Led, or Managed by:

Academic/Clinical Researchers Only

Citations:

- Chak E, Vu F, Dang J, Smith U, Stewart S, Tam K, Beste-Fong A, Phelps B, Johnson I, Suarez M, Pat Pauly M, Chen MS Jr. Enhancing Electronic Health Systems to End Transmission of Chronic Hepatitis B During COVID-19: A Collaborative Approach. Clin Liver Dis (Hoboken). 2021 Aug 5;17(6):424-428. doi: 10.1002/cld.1144. PMID: 34386208; PMCID: PMC8340353.
  Relevance: Main Intervention, Post-Intervention Outcomes
- Chak E, Taefi A, Li CS, Chen MS Jr, Harris AM, MacDonald S, Bowlus C. Electronic Medical Alerts Increase Screening for Chronic Hepatitis B: A Randomized, Double-Blind, Controlled Trial. Cancer

Epidemiol Biomarkers Prev. 2018 Nov;27(11):1352-1357. doi: 10.1158/1055-9965.EPI-18-0448. Epub 2018 Aug 8. PMID: 30089680; PMCID: PMC6214733.
Relevance: Evaluations and Assessments
- Chak EW, Luna R, MacDonald S, Stewart SL, Chen MS Jr, Bowlus C. Automated electronic health registry-based hepatitis B screening. J Viral Hepat. 2023 Mar;30(3):228-231. doi: 10.1111/jvh.13784. Epub 2022 Dec 21. PMID: 36514989; PMCID: PMC10803191.
Relevance: Evaluations and Assessments

Adaptation of Another Research-based Intervention:

Yes

Name of Original Intervention:

Perinatal HBV transmission prevention/screening and referral to hepatologist or primary care provider for interpretation of screening tests.

URL to original Intervention:

n/a

Citations:

- U.S. Preventive Services Task Force. Hepatitis B Virus Infection in Adolescents and Adults: Screening. JAMA. 2020;324(23):2415-2422. Available at: https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/hepatitis-b-virus-infection-screening. Accessed August 21, 2024.

Intervention Primary Outcomes were comparable to the original:

Yes

Contact Information

Primary Contact Affiliation:

Office of Community Outreach and Engagement, UC Davis Comprehensive Cancer Center, Sacramento, CA

Intervention URL:

Results

Intentions

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

Intervention Primary Outcome:

Prevention perinatal HBV transmission

Intervention Secondary Outcome:

Increase screening for HBV

Key Findings:

As a result of early adoption of telehealth services at HALO during the COVID-19 pandemic, completion of HBV testing among pregnant women at HALO remained only slightly below prepandemic levels. Use of an EHR-based registry of high-risk patients across all HALO clinics led to a large increase in the number of tests completed and new HBV cases detected. For example, 19 new HBV diagnoses were found within 6 months of use compared with 3 in the 6 months prior to initiating registry-based testing. All of these patients were linked to the care of a hepatologist.

Statistical Method Used:

Descriptive statistics

Was statistical method used to analyze data from original Intervention comparable to the original:

Yes

Evaluations and Assessments

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

No

Demographic and Implementation Description

Diseases, Disorders, or Conditions:

Hepatitis B

Race/Ethnicity:

Asian

Populations with Health Disparities:

People with Lower Socioeconomic Status (SES), Racial and Ethnic Minority Populations

Age:

Young Adults (18 - 39 years), Middle-Aged Adults (40 - 64 years), Older Adults (65+ years)

Socio-demographics / Population Characteristics

Community Type:

Urban / Inner City

Other Populations with Health Disparities:

Unspecified

Geographic Location:

California, Sacramento

Socio-Economic Status:

Low SES, Middle SES, High SES

Research Framework

		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:

Participation

Planning :

Participation

Recruitment:

Participation

Sustainability:

Participation

Characteristics and Implementation

Intervention Focus Area:

Behavior Change

Disease Continuum:

Secondary Prevention

Delivery Setting:

Clinic / Health Care Facility

Mode of Delivery:

In-person

Who delivered the Intervention?:

Healthcare Professional (Physician, Nurse, Technician)

Conceptual Framework

Intervention Theory:

None

Intervention Framework:

None

Implementation

Intervention Study Design:

Non-comparative/non-experimental (no comparison or control groups, pre and post test intervention outcome assessments, single group design)

Targeted Intervention Sample Size:

5004

Actual Intervention Sample Size:

2521

Start Year:

2020

End Year:

2023

Intervention Exposures

Duration of Intervention/How Long it Lasted:

2-3 years

Frequency of Intervention Delivery:

Once

Number of Sessions/Meetings/Visits/Interactions:

1-2 Sessions

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

Less than 1 Hour

Format of Delivery:

Individual

Highest Reading Level of Intervention Materials Provided to Participants:

Unspecified

Adaptations and Modifications

Were modifications made?

Intervention Elements	Modified
Content	No
Context	No
Implementation	No
Funding	No
Organization	No
Participants	No
Providers	No
Sociopolitical	No
Stages of Occurrence	Yes

Modification Details

	Explanation
Stages of Occurrence	
Other	n/a

Impact, Lessons, Components

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

Not Tested

Essential Aspects for Success:

Trust and leadership. Educational sessions, content, and materials on HBV were conducted/created in English and Hmong.

Lessons Learned

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

The success of the project required trust and adaptation. For example, in-person meetings were adapted during the COVID-19 pandemic to virtual meetings. Engagement of some primary care providers in training was low, so the HALO Case Manager and HALO medical assistants were trained in HBV prevention and control. Recommendations were made for newborns to receive their first HBV vaccination within 12 hours of birth, and for the completion of vaccinations for HALO patients, ages 18 and younger.

Insights Gained During Implementation

No insights available.

Intervention Components

Intervention Has Multiple Components:

Yes

Assessed Each Unique Contribution:

No

Products, Materials, and Funding

Expertise, Partnerships, and Funding Sources

	Used for Implementation	Needed for Sustainability
Expertise		
Clinical Care	Yes	Yes
Partnerships		
Universities	Yes	No
Funding Sources		
Public funding (e.g., federal, state or local government)	Yes	Yes

Product/Material/Tools

	Tailored For Language	Language(s) if other than English	Material
Outreach/Recruitment Tools			
Publicity Materials (e.g. Posters, Flyers, Press Releases)	Yes	Hmong	Attachment available for request at the bottom of the page.
How HALO staff can reduce the unique, unusual, but necessary cancer health disparities affecting Asian Americans PowerPoint	No		Attachment available for request at the bottom of the page.
Participant Educational Tools			
HBV Patient Education Workshops PowerPoint - Hmong	Yes	Hmong	Attachment available for request at the bottom of the page.
HBV Patient Education Workshops PowerPoint - English	No		Attachment available for request at the bottom of the page.
Brochures/Factsheets/Pamphlets	Yes	Hmong	Attachment available for request at the bottom of the page.
Brochures/Factsheets/Pamphlets	Yes	Hmong	Attachment available for request at the bottom of the page.
Brochures/Factsheets/Pamphlets	Yes	Hmong	Attachment available for request at the bottom of the page.
Brochures/Factsheets/Pamphlets	No		Attachment available for request at the bottom of the page.
Brochures/Factsheets/Pamphlets	No		Attachment available for request at the bottom of the page.

	Tailored For Language	Language(s) if other than English	Material
Brochures/Factsheets/Pamphlets	Yes	Hmong	Attachment available for request at the bottom of the page.
Brochures/Factsheets/Pamphlets	Yes	Hmong	Attachment available for request at the bottom of the page.
Brochures/Factsheets/Pamphlets	Yes	Hmong	Attachment available for request at the bottom of the page.
MA Academy Training PowerPoint	No		Attachment available for request at the bottom of the page.
MA Academy Training PowerPoint	No		Attachment available for request at the bottom of the page.
MA Academy Training PowerPoint	No		Attachment available for request at the bottom of the page.
Measurement Tools			
Non-Standardized Instruments/Surveys/Questionnaires	No		Attachment available for request at the bottom of the page.

Implementation Materials and Products

	Material
Implementation/Delivery Materials	
Training/Operations manual	Attachment available for request at the bottom of the page.
Educational video for physicians/providers, and clinical staff	Attachment available for request at the bottom of the page.
HBV educational video for the public (#2)	Attachment available for request at the bottom of the page.
HBV educational video for the public (#3)	Attachment available for request at the bottom of the page.
HBV educational video for the public (#1)	https://youtu.be/5C8FWz3EFpY
Implementation/Output Materials	
No Implementation/Output Materials provided.	

Articles Related to Submitted Intervention

	Article
Reports/Monographs	
No Reports/Monographs provided.	
Additional Articles	
No Additional Articles provided.	

Materials Available for Request

- Recruitment Poster Apr 10-17 Green Health Educational Workshop END B.pdf
- 6a. Cancer health disparities_MC (4.6.22) (1).pptx
- Hmong HBV.pdf
- English HBV.pdf
- 5a. Infographic Chronic Hepatitis B double-sided.pptx
- 5b. Infographic Chronic Hepatitis B Hmong double-sided.pptx
- 5c. Infographic General Screening double-sided.pptx
- 5d. Infographic General Screening Hmong double-sided.pptx
- 5e. Infographic General What to Do.pptx
- 5f. Infographic General What to Do Hmong.pptx
- 5g. Infographic prenatal (English).pptx
- 5h. Infographic prenatal (Hmong) (1).pptx
- 2019-06-15_Academy composite slides.pptx
- 2019-09-28_FINAL_HBV_MA_Slides .pptx
- FINAL_Virtual HALO MA Academy.pptx
- Feedback of HALO MA Academy - Survey Blank.docx

- 6c. Liver Cancer Module for MAs_Eric Chak.pptx
- 9a. END B - Hep B for Providers - produced by K. Simoes.mp4
- 9c. END B - Living with Chronic Hepatitis B - Video 2.mp4
- 9d. END B - Pregnancy, Hepatitis B and Moms - Video 3.mp4