

VHPB TECHNICAL MEETING

Addressing Viral Hepatitis Among Europe's Migrant and Refugee Population: lessons learnt and the way forward

AGENDA

26-27 March 2024

Antwerp, Belgium

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eSPiC
Equip de salut
pública i comunitària

**DAT HEP Project,
2015**

Active Community Intervention for the Detection, Care and Treatment of Hepatitis B in Sub-Saharan African Immigrant Population

Co-create an educational tool to improve accessibility to hepatitis diagnosis among immigrant groups

Qualitative descriptive-interpretative study

1. Construction of a motor group

A motor group with 8 members from different sectors

2. Participatory community diagnosis

3 focus groups: Equatorial Guinea, Senegal and Nigeria (n=17)

Results: Ignorance of the basic concepts, the routes of transmission, diagnosis, treatment and prevention measures

3. Action plan

Need for a dynamic tool



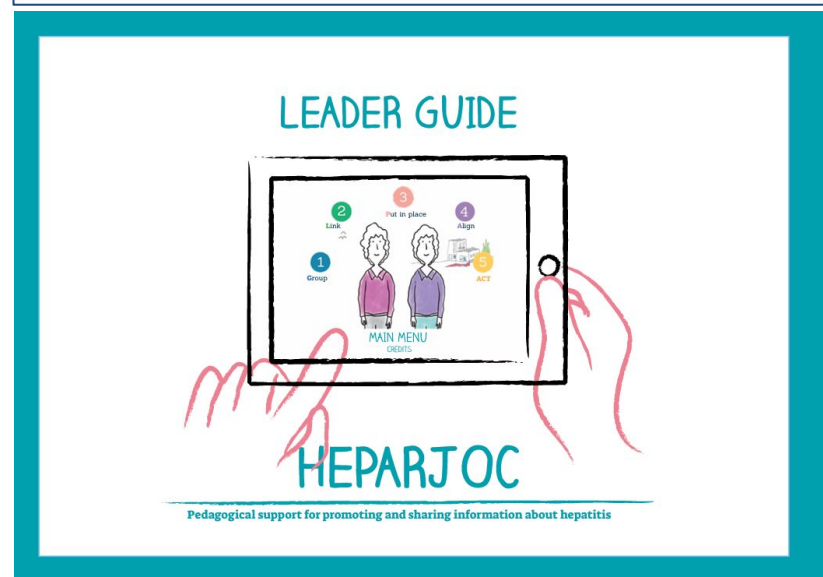
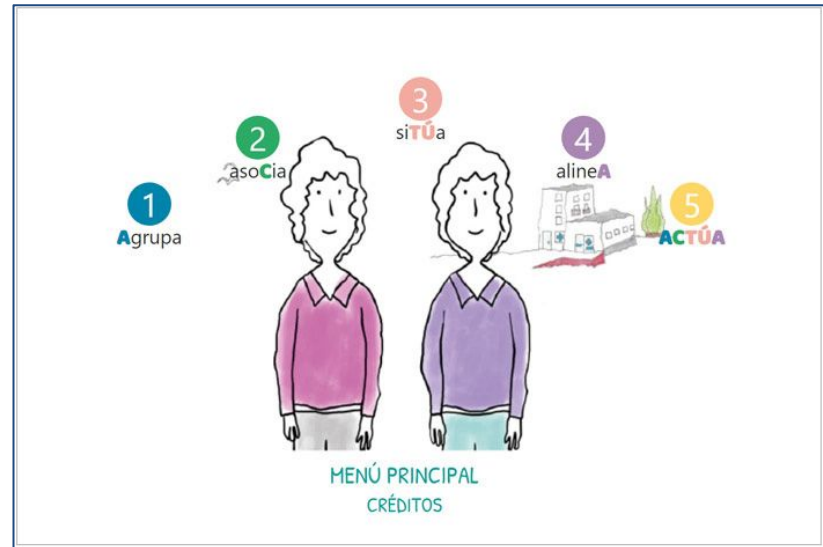
DAT HEP: HEPARJOC (2016 - 2018)

HEPARJOC Tool

Consta de un Kit de 5 juegos didácticos:

1. **A**grupar “¿qué es qué?”
2. aso**C**ia “¿por qué?”
3. si**TÚ**a “¿dónde?”
4. aline**A** “¿cómo?”
5. **ACTÚA** “no te la juegues”

Co-creation of the HEPARJOC Tool
Pedagogical support tool in digital
format, guided by a facilitator



DAT HEP: HEPARJOC (2016 - 2018)

Piloting and validation HEPARJOC Tool(Action Plan)

Rev Esp Salud Pública. 2020; Vol. 94: 7 de julio e1-13.

www.mscbs.es/resp

ORIGINAL BREVE

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“HEPARJOC-ACTÚA”: HERRAMIENTA EDUCATIVA CREADA A TRAVÉS DE UN PROCESO DE INVESTIGACIÓN-ACCIÓN PARTICIPATIVA CON COLECTIVOS INMIGRANTES VULNERABLES PARA MEJORAR LA ACCESIBILIDAD AL DIAGNÓSTICO DE LA HEPATITIS B(*)

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Los autores declaran que no existe ningún conflicto de interés.

(*) Financiación: Este estudio ha sido parcialmente financiado por Gilead, financiando el estudio cualitativo (ECDI) y el diseño de “HEPARJOC”. No ha sido financiada la programación ni el plan de actuación (PDA).

RESUMEN

Introducción: La Organización Mundial de la Salud estima que 257 millones de personas padecen infección crónica por el virus de la hepatitis B (HBV). Es habitual que el diagnóstico se retrase o que nunca se llegue a realizar. En España, los inmigrantes procedentes de áreas endémicas presentan prevalencias en torno al 8%. En el año 2015, se inició este estudio con el objetivo de mejorar la accesibilidad al diagnóstico de la hepatitis B en colectivos inmigrantes.

Métodos: Se realizó un estudio cualitativo descriptivo, basado en la investigación acción participativa (IAP). Se dividió en dos ciclos: en el primer ciclo, después de configurar un grupo motor (GIAP), se realizó un diagnóstico comunitario participativo (DCP) con la población, a través de un estudio cualitativo descriptivo-interpretativo (ECDI) con 3 grupos focales (n=17). Se llevó a cabo un análisis narrativo de contenido temático. En el segundo ciclo, se realizaron 2 talleres de trabajo colaborativo (coworking) para crear una herramienta educativa (HEPARJOC) y coconstruir un plan de acción (PDA). Como prueba piloto se llevó a cabo este PDA a través de 8 talleres (n=56). Se utilizó un cuestionario de conocimientos para comparar la media de respuestas correctas pre y post taller utilizando el t de Student para datos apareados.

Resultados: Se configuró un GIAP con 8 miembros de diferentes sectores y espacios comunitarios. En el DCP se observó que existía un desconocimiento en diferentes aspectos sobre la hepatitis B. Se propusieron, como herramientas educativas, materiales visuales e interactivos, elaborando como producto final el “HEPARJOC”. En la prueba piloto del PDA, la media de las respuestas correctas al cuestionario de conocimientos sobre la HBV fue de 7,7 (DE=3) previamente, y de 10,6 (DE=0,2) posteriormente. La mejora de la media fue de 2,9 puntos (IC 95% 2,2-3,6), siendo estadísticamente significativa (p<0,001). Solicitaron el cribado 30 personas (53,6%), siendo cribadas 23 (41%).

Conclusiones: “HEPARJOC-ACTÚA” es una estrategia que puede contribuir a transformar conocimientos y a mejorar la accesibilidad al diagnóstico de la hepatitis B en colectivos inmigrantes.

Palabras clave: Enfermedades infecciosas, Hepatitis B, Salud comunitaria, Agentes comunitarios de salud, Educación en salud, Investigación acción-participativa, Inmigración.

ABSTRACT

“HEPARJOC-ACTÚA”: educational tool created through a process of participatory action research with vulnerable immigrant groups to improve accessibility to diagnosis of hepatitis B

Background: The World Health Organization estimates that 257 million people suffer from chronic infection by the hepatitis B (HBV). It is common for diagnosis to be delayed or never given at all. In Spain, immigrants that come from endemic areas present a prevalence of infection of around 8%. In the year 2015, this study was begun with the aim of improving accessibility to hepatitis B diagnoses in immigrant communities.

Methods: A descriptive qualitative study was carried out, based on participatory action research (IAP). It was divided into two cycles: in the first cycle, after forming a motor group (GIAP), a participatory community assessment (DCP) was performed with the population, through a descriptive-interpretative qualitative study (ECDI) with 3 focal groups (n=17). A narrative analysis was then performed of thematic content. In the second cycle, two collaborative workshops (coworking) were held to create an educational tool (HEPARJOC) and to co-create an action plan (PDA). As a pilot test, the PDA was put into practice through eight workshops (n=56). A knowledge questionnaire was used to compare the median number of correct responses before and after the workshop, using the t of Student for paired data.

Results: A GIAP was formed with 8 members of different sectors and community spaces. In the DCP it was observed that there was a lack of knowledge about different aspects of hepatitis B. Visual, interactive materials were proposed as educational tools, and “HEPARJOC” was created as the final product. In the pilot test of the PDA, the median of correct responses to the knowledge questionnaire about HBV was 7.7 (DE=3) before the workshop, and 10.6 (DE=0.2) afterward. The improvement of the median was 2.9 points (IC 95% 2.2-3.6), which is statistically significant (p<0.001). 30 people sought screening (53.6% of participants), and 23 of those people were screened (41% of participants).

Conclusions: “HEPARJOC-ACTÚA” is a strategy that could contribute to transforming knowledge and improving accessibility to hepatitis B diagnosis in immigrant communities. Key words: Infectious diseases, hepatitis B, community health, community health agents, health education, participatory action research, immigration.

Key words: Infectious diseases, Hepatitis B, Community health, Community Health Agents, Health education, Participatory Action Research, Immigration.

Cita sugerida: Ouassab Essadek H, Borrás Bermejo B, Caro Mendivelso J, Rodríguez Arjona LL, Bisobe A, Clavería Guiu I, Gómez i Prat J. “Heparjoc-Actúa”: educational tool created through a process of participatory action research with vulnerable immigrant groups to improve accessibility to diagnosis of hepatitis B. Rev Esp Salud Pública. 2020; 94: 7 de julio e202007078.

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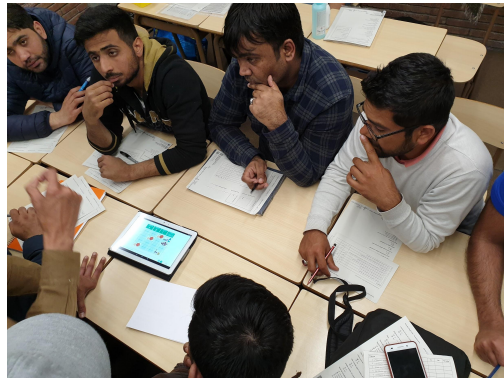
Ouassab Essadek H, Borrás Bermejo B, Caro Mendivelso J, Rodríguez Arjona LL, Bisobe A, Clavería Guiu I, Gómez i Prat J. “Heparjoc-Actúa”: educational tool created through a process of participatory action research with vulnerable immigrant groups to improve accessibility to diagnosis of hepatitis B. Rev Esp Salud Pública. 2020 Jul 7;94: e202007078. Spanish.

HEPARJOC Knowledge Survey (8 workshops / 56 people)

The mean correct pre-intervention response: 7.7 (SD 0.3); post-intervention: 10.6 (SD: 0.2)

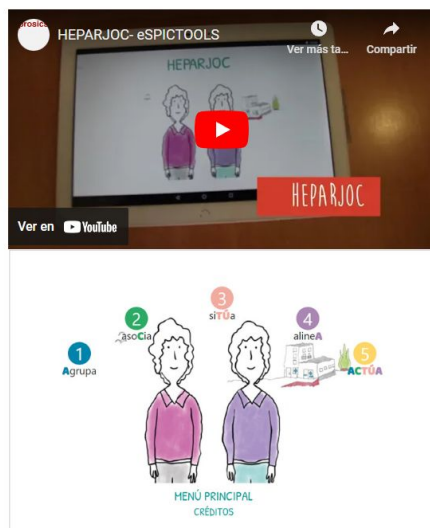
Improvement of 2.9 points (95% CI 2.2-3.6) i p<0.001

A total of 30 people (53.6%) requested screening, and 23 (41%) were screened



HEPARJOC Tool

Accessible on the website: www.espictools.cat/heparjoc-2-2/



The screenshot shows the HEPARJOC website interface. At the top, there's a header with the logo and navigation links. Below it, a large video player displays a cartoon illustration of two people. To the right of the video player, there's a section titled "HEPARJOC" with a description of the tool's purpose and how it is used. Below the description, there's a list of five educational games. At the bottom, there are two buttons: "COME IN AND PLAY THE HEPARGAME" and "SPANISH MANUAL".

HEPARJOC

HEPARJOC is a pedagogical support tool whose purpose is to use the game to learn, share knowledge about viral hepatitis (especially hepatitis B), as well as promote the importance of early diagnosis of these infections.

It is based on the participation guided by a leader of the groups, involving the participants in the process of the game in a dynamic and playful way.

Hepargam requires a facilitator (health personnel, usually a community health worker), as well as the need to facilitate access to diagnostics for vulnerable populations

It consists of a kit of 5 educational games:

1. Group "what is what?"
2. association "why?"
3. siTua "where?"
4. lineA "how?"
5. ACTUA video "don't play it"

[COME IN AND PLAY THE HEPARGAME](#)

[SPANISH MANUAL](#)

[ENGLISH MANUAL](#)

Video accessible in 13 languages



VIDEO "ACT! DON'T PLAY IT"
AVAILABLE LANGUAGES:

> VIDEO IN ENGLISH

> VIDEO IN ARABIC

> VIDEO IN SPANISH

> VIDEO IN CATALAN

> VIDEO IN FRENCH

> VIDEO IN MANDINGA

> VIDEO IN MONGOLIAN

> VIDEO IN PULAAR

> VIDEO IN ROMANIAN

> VIDEO IN RUSSIAN

> VIDEO IN URDU

> VIDEO IN CHINESE

> VIDEO IN WOLOF

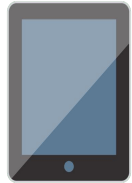
**Projects that used the
HeparJoc tool ...**

HepC link (2019-2020)

Pilot hepatitis C micro-elimination strategy in Pakistani immigrants in Catalonia through the implementation of a community intervention

To implement and assess the acceptability, effectiveness and costs of a community intervention based on HCV prevention, screening and linkage to care (LTC) focused on Pakistani immigrants in Catalonia.

VISIT 1: Sessions & events in the community (reclutament, educació i cribratge)



Educació
(HEPARJOC,
Avaluació
coneixements
pre/post)



Qüestionari
epidemiològic



Cribratge VHC
(prova ràpida Ac,
recollida sang seca)



Germans Trias i Pujol
Hospital



eSPiC
Equip de salut
pública i comunitària

Pilot hepatitis C micro-elimination strategy in Pakistani migrants in Catalonia through a community intervention

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Handling Editor: Luca Valenti

Abstract

Background and Aims: Pakistani migrants in Catalonia, Spain, could have high hepatitis C virus (HCV) prevalence. The aims of the HepClink study were (i) to implement and assess the quality of a micro-elimination strategy based on a community intervention and (ii) to obtain data from primary care (PC) registries as a baseline comparator.

Methods: The community intervention targeted Pakistani adults and consisted of education, screening and simplified access to treatment. Quality indicators were calculated (effectiveness, impact and acceptability). The testing rate, the prevalence of HCV antibodies and HCV-RNA were compared with those observed in the Pakistani population accessing PC in the previous year.

Results: A total of 505 participants were recruited through the community intervention (64.6% men, median 37 years) vs those accessing PC ($N = 25\,455$, 70.9% men, median 38 years). Among study participants, 35.1% did not know about HCV and 9.7% had been previously tested. The testing rate in the community intervention was 99.4% vs 50.7% in PC. Prevalence was 4.6% vs 7.1% ($p = .008$) for HCV antibodies and 1.4% (3/6 new diagnoses) vs 2.4% ($p = .183$) for HCV-RNA. Among the six viremic patients,

Abbreviations: 95% CI, 95% confidence interval; Ab-PoCT, Antibody point-of-care test; COVID-19, Coronavirus disease 2019; DAA, directly acting antiviral treatment; DBS, dried blood spots; HCV, hepatitis C virus; IHU, International Health Unit; LTU, lost to follow-up; PC, primary care; SIDIAP, Information System for the Development of Research in Primary Care; SVR12, Sustained virological response at week 12 after treatment; WHO, World Health Organization.

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BMJ Open Implementation of the HepClink test-and-treat community strategy targeting Pakistani migrants with hepatitis C living in Catalonia (Spain) compared with the current practice of the Catalan health system: budget impact analysis

Juliana Reyes-Ureña¹,² Francisco Costell-González,¹ Laia Egea-Cortés,¹ Hakima Ouaraab,² Veronica Saludes,³ Maria Buti,⁴ Xavier Majó i Roca,⁵ Joan Colom,⁶ Jordi Gómez i Prat,² Jordi Casabona,¹ Elisa Martró,³ on behalf of the HepClink Study Group

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JR-U and FC-G contributed equally.

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ABSTRACT

Objectives To perform a budget impact analysis of the HepClink test-and-treat strategy in which community health agents offer hepatitis C virus (HCV) testing, diagnosis and treatment to the Pakistani population living in Catalonia compared with the current practice of the Catalan health system (without targeted screening programmes).

Methods We estimated the population of adult Pakistani migrants registered at the primary care centres in Catalonia by means of the Information System for the Development of Research in Primary Care ($n=37\,972$ in 2019, Barcelona health area). This cohort was followed for a time period of 10 years after HCV diagnosis (2019–2028). The statistical significance of the differences observed in the anti-HCV positivity rate between screened and non-screened was confirmed ($\alpha=0.05$). The budget impact was calculated from the perspective of the Catalan Department of Health. Sensitivity analyses included different levels of participation in HepClink: pessimistic, optimistic and maximum.

Results The HepClink scenario screened a higher percentage of individuals (69.8%) compared with the current scenario of HCV care (39.7%). Viraemia was lower in the HepClink scenario compared with the current scenario (1.7% vs 2.5%, respectively). The budget impact of the HepClink scenario was €884 244.42 in 10 years.

Conclusions Scaling up the HepClink strategy to the whole Catalan territory infers a high budget impact for the Department of Health and allows increasing the detection of viraemia (+17.8%) among Pakistani migrants ≥18 years. To achieve a sustainable elimination of HCV by improving screening and treatment rates, there is room for improvement at two levels. First, taking advantage of the fact that 68.08% of the Pakistani population had visited their primary care physicians to reinforce targeted screening in primary care. Second, to use HepClink at the community level to reach individuals with reluctance to use healthcare services.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ The long time scope (2019–2028) permits a realistic assessment of the budget impact.
- ⇒ We used a biologically plausible model which is fitted with local data on disease epidemiology and the effectiveness of directly acting antiviral agents in Catalonia, Spain.
- ⇒ Cost of treatment was drawn from the Catalan Health System Cost Database and published literature from Spain for patient cost; however, indirect costs were not included.
- ⇒ The possibility of reinfection once treated was not considered in our model.

INTRODUCTION

Chronic hepatitis C remains an important public health problem in the European Union (EU)/European Economic Area (EEA) and the UK, with an estimated 3.9 million persons having active hepatitis C virus (HCV) infection¹ in the region. The landscape of HCV treatment has changed rapidly since 2013, especially when pan-genotypic direct-acting antiviral (DAA) HCV treatment that cures about 95% of HCV infections became available, making HCV elimination possible.² Identifying and treating all HCV-infected people including at-risk groups will be essential to address the health and economic burden due to HCV in the region and to meet the WHO elimination goals by 2030.³

Migrants from high and intermediate HCV-prevalent countries (anti-HCV ≥5% and ≥2%, respectively) are an important and overlooked group with increased HCV infection

HepBClink study (2021-2023)

Cost-effectiveness of a community-based intervention versus a health system-based strategy to promote the prevention, diagnosis and treatment of hepatitis B and C in immigrants in Catalonia (HepBC-link).

Purpose: implement and evaluate a community action that brings together education, screening and simplified access to treatment in migrants from Pakistan, Romania and Senegal



MicatC project (2021-22)

Pilot project for community screening and early linkage to the treatment of Hepatitis B and C in migrants from countries with high prevalence and residing in four areas of Catalonia.



Programa de prevenció, control i atenció al VIH,
les ITS i les Hepatitis Víriques – PCAVIHV

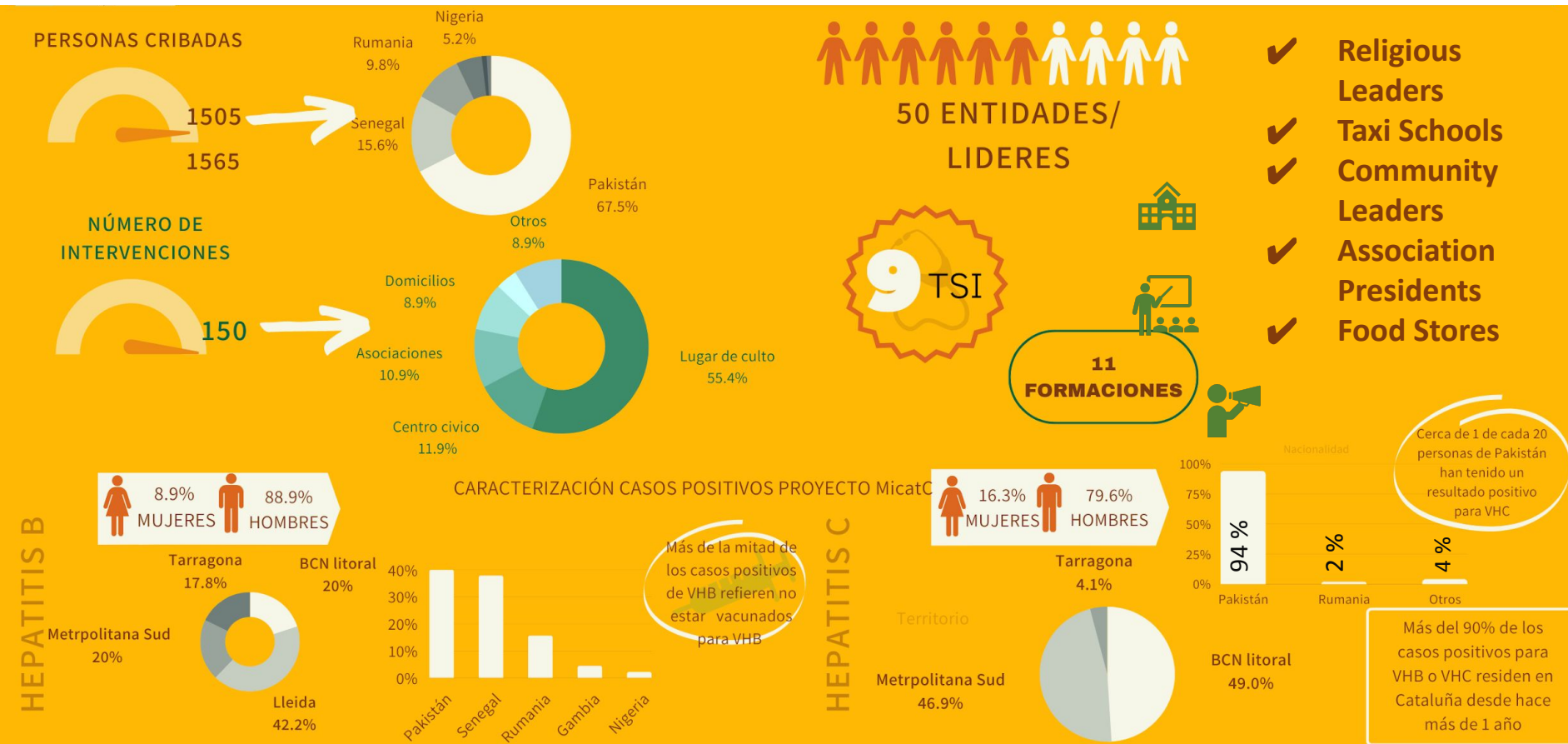


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Salut Pública de Catalunya



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MicatC project (2021-2022)



D-Mongolia: screening and linkage-to-care for Hepatitis D in Mongolian nationals living in Spain (2022)

The primary aim of the study is to simplify and evaluate HDV testing and care pathways for Mongolian people living in Spain in order to test them and link them to care within the time span of the project by community setting testing of HBsAg, anti HDV and HDV RNA.

Үйлдэл хий,
эрсдэл
бүү гарга.



Эрүүл мэндийн төв дээр очиж
гепатитийн шинжилгээгээ өгөөрэй.



viruses



Communication

Community Strategy for Hepatitis B, C, and D Screening and Linkage to Care in Mongolians Living in Spain

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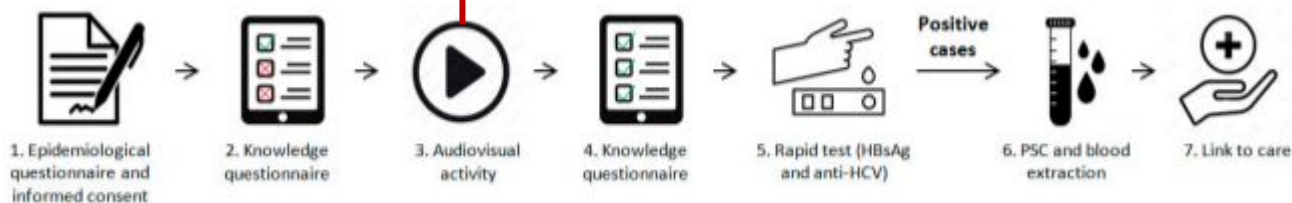
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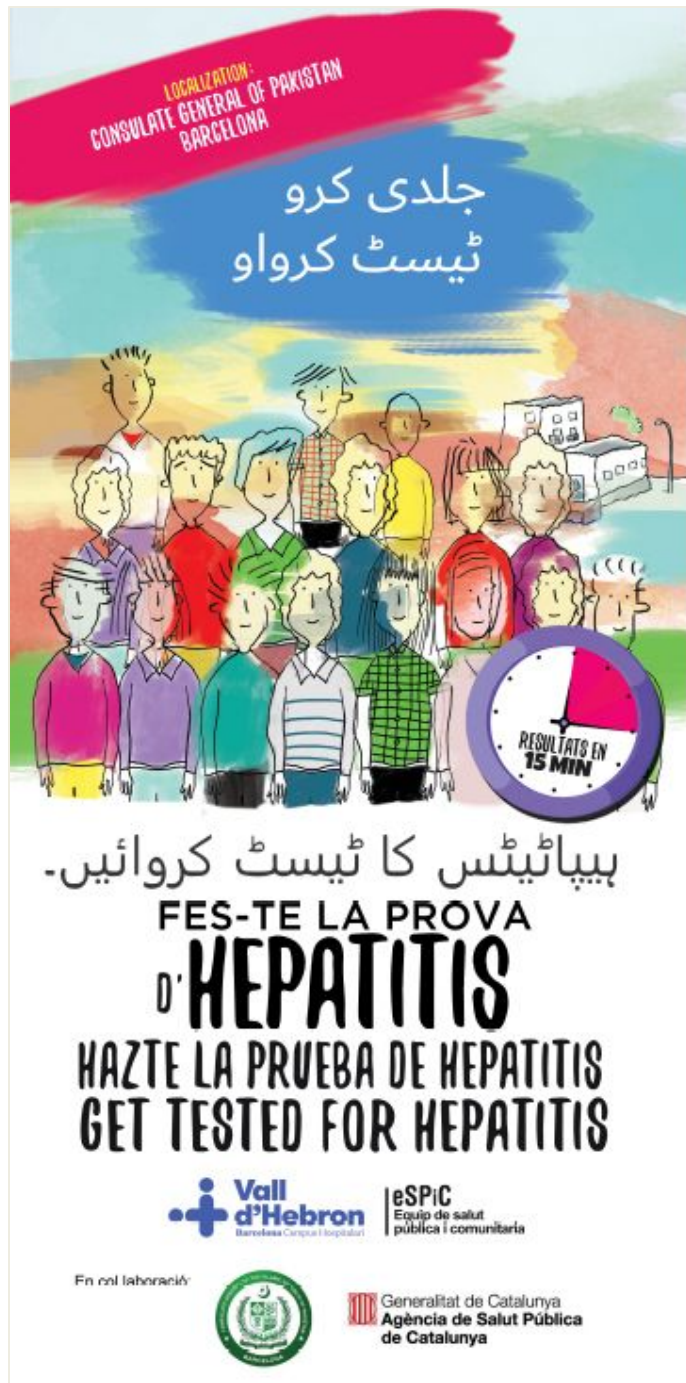
Abstract: Mongolia has one of the highest viral hepatitis infection (B, C, and D) rates in the world. The aims of this study were to increase awareness of this disease and promote viral hepatitis screening in the Mongolian community living in Spain. Through a native community worker, Mongolian adults were invited to a community program consisting of an educational activity, an epidemiological questionnaire, and rapid point-of-care testing for hepatitis B and C. In those testing positive, blood extraction was performed to determine serological and virological parameters. In total, 280 Mongolians were invited to the program and 222 (79%) attended the event: 139 were women (63%), mean age was 42 years, and 78 (35%) had viral hepatitis risk factors. Testing found 13 (5.8%) anti-HCV-positive individuals, 1 with detectable HCV RNA (0.5%), 8 HBsAg-positive (3.6%), and 7 with detectable HBV DNA (3.1%). One additional individual had HBV/HCV co-infection with detectable HBV DNA and HCV RNA. Two subjects had hepatitis B/D co-infection (0.9%). The knowledge questionnaire showed a 1.64/8-point (20.5%) increase in correct answers after the educational activity. In summary, a viral hepatitis community program was feasible and widely accepted. It increased awareness of this condition in the Mongolian community in Spain and led to linkage to care in 22 participants, 50% of whom were unaware of their infection.

Keywords: community program; viral hepatitis screening; viral hepatitis awareness; Mongolian community



Health Organization (WHO) reported more than 800,000 cases of due to viral hepatitis, with the main causes being chronic hepatitis C virus (HCV) infection [1]. Chronic hepatitis D virus (HDV) in the presence of HBV, causes the most severe form of viral liver more frequent progression to liver cirrhosis [2]. Mongolia has liver cancer in the world, mainly due to chronic HBV and HCV

**New projects, which will use the
educational tool HeparJoc,
with its different strategies,
workshop or video session**



2023 -

Pilot project for community screening of Hepatitis B and C at the Pakistan consulate in Barcelona



OVERVIEW

- Hepatitis C is a viral infection that affects the liver. It can cause both acute (short term) and chronic (long term) illness. It can be life-threatening.
- Hepatitis C is spread through contact with infected blood.
- Symptoms can include fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine and yellowing of the skin or eyes (jaundice).
- There is no vaccine for hepatitis C, but it can be treated with antiviral medications.
- Early detection and treatment can prevent serious liver damage and improve long-term health.

COMMUNITY SCREENING IN PAKISTANI POPULATION IN CATALONIA

The immigrant population from countries with a high prevalence of hepatitis C living in Barcelona is a difficult group to access when it comes to implementing preventive, diagnostic, or treatment measures for Hepatitis. In this context, and considering the importance of promoting early screening in this underdiagnosed population, there is a need to implement an active strategy focused on the community to increase awareness and improve accessibility to the diagnosis of hepatitis C.



* This project is a collaboration between ESPiC and the Pakistani consulate in Barcelona and Agència de Salut Pública de Catalunya

PUBLICATIONS

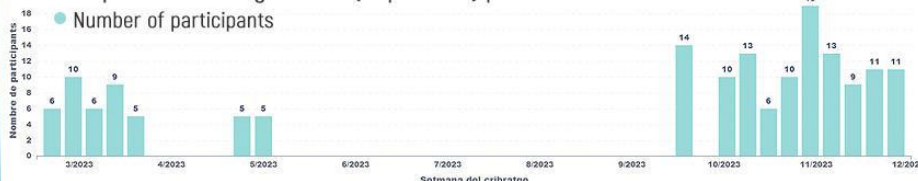
- Pilot hepatitis C micro-elimination strategy in Pakistani migrants in Catalonia through a community intervention
- Implementation of the HepClick test-and-treat community strategy targeting Pakistani migrants with hepatitis C living in Catalonia (Spain) compared with the current practice of the Catalan health system: budget impact analysis.

HEPATITIS C SCREENING RESULTS

PAKISTANI CONSULATE GENERAL IN BARCELONA (CATALONIA, SPAIN)

1

Participants screening actions (Hepatitis C) per week



Throughout 2023, 19 community screenings were carried out at the Pakistani consulate in Barcelona. These actions occurred on Monday mornings, and a total of **163 people participated**.

2

- 51% of participants were women living in Catalonia, mainly in Barcelona and surrounding areas.
- The median age of participants was 39.5 years.

Map of the place of residence of the participants in the screenings



Participants in screenings by gender



39.5
Total median age of community screening actions

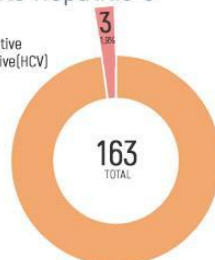
41
♀

38
♂

3

Results Hepatitis C

- Negative
- Positive(HCV)



Positive cases of hepatitis C by country

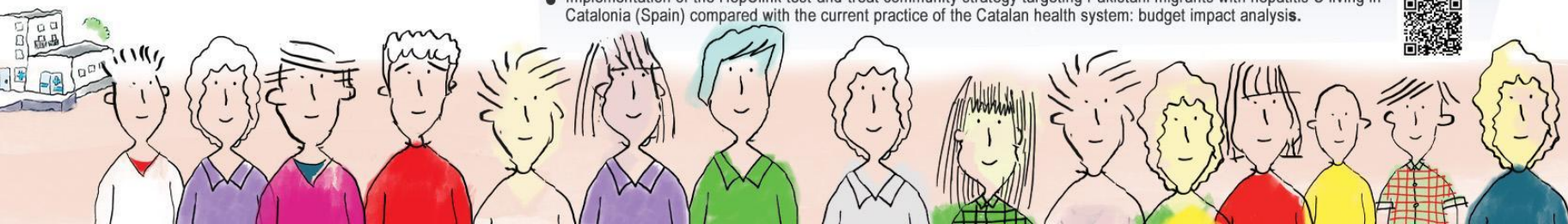


Positive cases of hepatitis C by gender



34.5
Median age of positive hepatitis C cases

3 people (1.9%) tested positive for Hepatitis C and were referred to Vall d'Hebron Hospital for monitoring and initiation of treatment.



对 乙型肝炎(VHB)
和丙型肝炎 (VHC)病毒感染的认识
通过快速检测

SENSIBILITZACIÓ SOBRE
LA INFECCIÓ DELS
VIRUS DE LES HEPATITIS B(VHB) I C (VHC)
A TRAVÉS DE TEST RÀPID



15'
15 分钟内得出结果
RESULTAT EN 15 MIN

请做肝炎检测
FES-TE LA PROVA
D'HEPATITIS

AMB LA COL·LABORACIÓ DE:
合作单位:

Vall d'Hebron
Barcelona Campus Hospitalari

eSPiC
Equip de salut
pública i comunitària

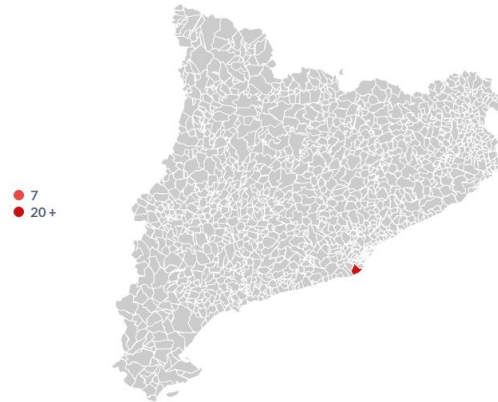
Generalitat de Catalunya
Agència de Salut Pública
de Catalunya

Servei d'hepatologia

2023 -

Pilot project for community screening of Hepatitis B and C in Chinese population resident in Catalonia

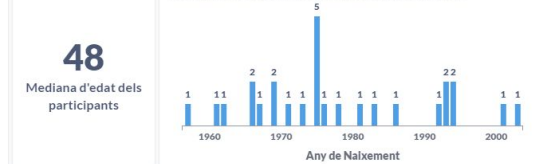
Mapa participants cribratge d'hepatitis a Catalunya



Participants de les accions d'hepatitis per gènere



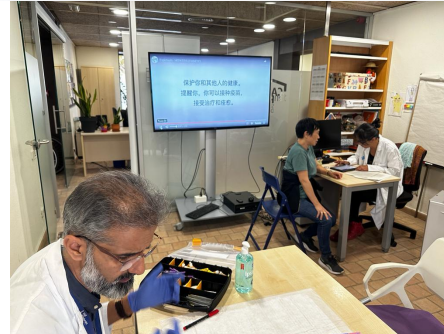
Participants de les accions d'hepatitis per any de naixement



Mapa del país de naixement dels participants



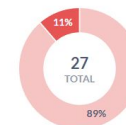
Participants de les accions d'hepatitis...



Resultats dels test ràpids d'VHB (AgHBs) de les accions d'hepatitis



● no_reactiu
● reactiu

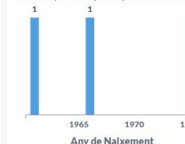


(+) Hepatitis B

Positius per VHB per gènere



Positius per VHB per any de naixement



57
Mediana d'edat dels casos positius...

Positius per VHB per país de naixement



**Key elements in the use of heparjoc
in the framework of
community health actions**

**Lessons learned and
Recommendations**

1. Existence of community health teams, with the figure of the Community Health Agent (CHA) and peer educators (PE) in the health network

Train to Act

Training community health agents and peer educators

Lessons learned / Recommendations

- Regular training of community assets (Community Health Agents and Peer Educators) and health teams in health and immigration issues.
- Differentiate Community Health Agent from Peer Educators



Train to Act Program (2012 -)

In press: Training to act (*Formar para Actuar*): peer-to-peer education for promoting health among vulnerable immigrant women in Barcelona (Catalonia)



MODULO 1: FORMAR



EDUCADORAS DE IGUALES

MODULO 2: ACTUAR



PARTICIPANTES A LOS TALLERES

2015 - 2016

2. Co-creation of new educational tools



Lessons learned / Recommendations

- Co-creating the tools and validating the strategies is essential for the good acceptance of the population
- Prior diagnosis is necessary to define strategies in detail. Strategies must be adapted to each context

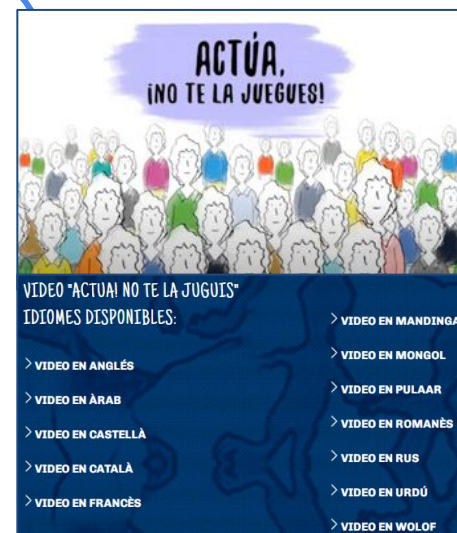


Table X. Hepatitis C-related knowledge before and after both interventions, by type of intervention. N = 437

Type of Heparjoc intervention		Pre intervention (N= 437)				Post intervention (N=424*)				Knowledge increment (N=424)		
		n (%)	MS ^a (IC95%)	Diff. ^b (IC95% ^c)	p value	n (%)	MS ^a (IC95%)	Diff. ^b (IC95% ^c)	p value	% change ^d (IC95%)	Diff. ^e (IC95% ^c)	p value
Global		437 (100)	5,98 (5,73-6,26)			424 (100)	9,08 (8,94-9,20)			↑ 31.00 (↑ 27.90 - ↑ 33.50)		<0.001
	Workshop	153 (35)	6,90 (6,48-7,33)	1,46 (0,83 - 2,01)	<0,00 1	153 (36)	9,80 (9,69-9,90)	1,14 (0,88 - 1,39)	<0,00 1	↑ 29.00 (↑ 24.63 - ↑ 33.50)	0,26 (-0,33 - 0,85)	0,38
	Video	284 (65)	5,44 (5,11-5,85)			271 (64)	8,66 (8,49-8,84)			↑ 31.63 (↑ 28.00 - ↑ 35.25)		

* 13 participants of the individual intervention group did not respond to the post-questionnaire.

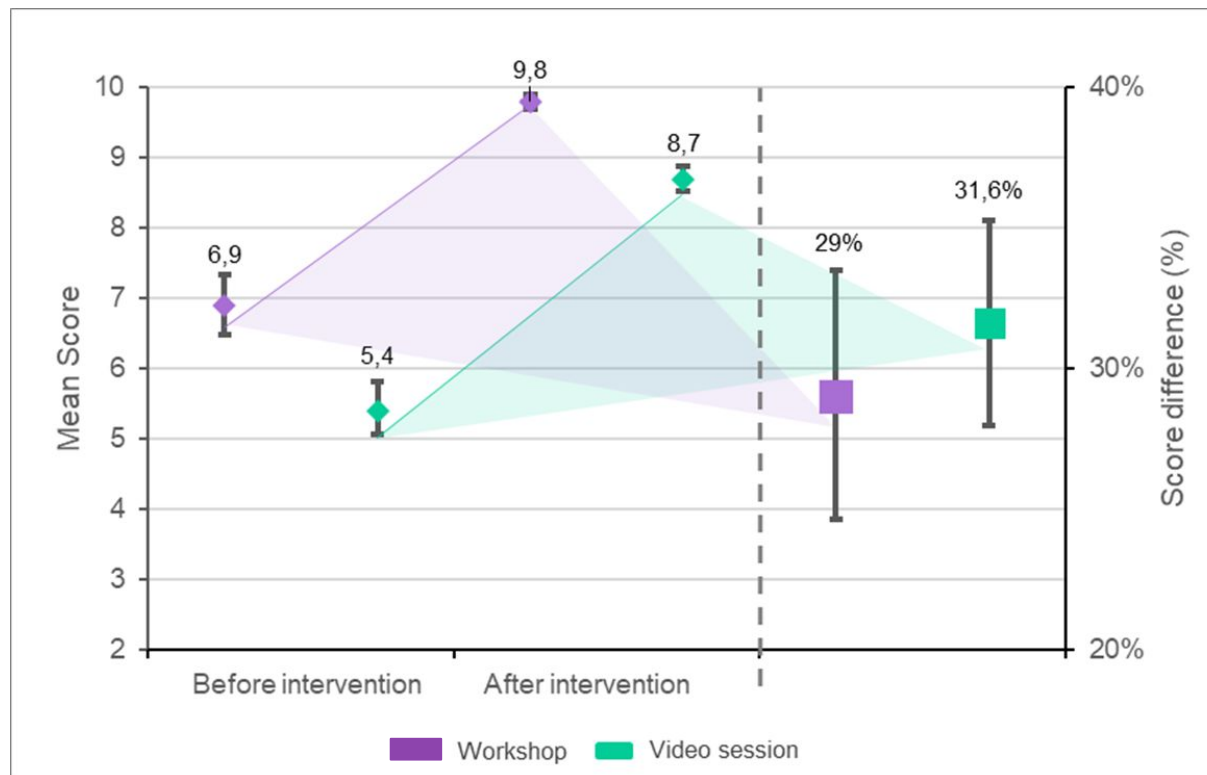
^a Mean Score (out of 10) per person.

^b Differences between the mean scores for both intervention groups.

^c From the t-test

^d Arrows indicate an increase (↑) or decrease (↓) in the percentage in the knowledge after the intervention.

^e Differences between the increment of mean scores for both intervention groups.



3. Proximity and community health strategies with on-site screening with rapid tests and "pre-test advice"

Strategies / Context

Concerted spaces (homes, entities, ...):
Longer group sessions
(45') (**workshop session**)

Locate spaces where they already do some community or individual activity:
Fast and individualized sessions (5')
(**video session**)

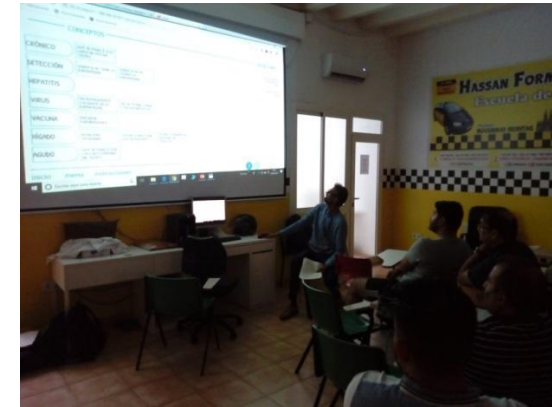
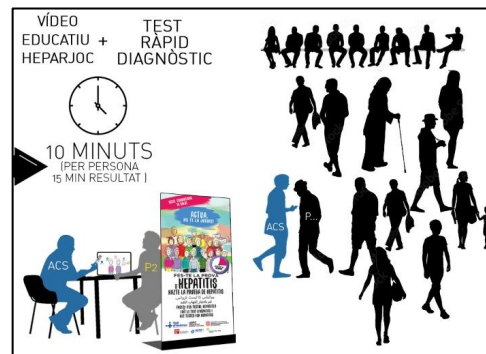
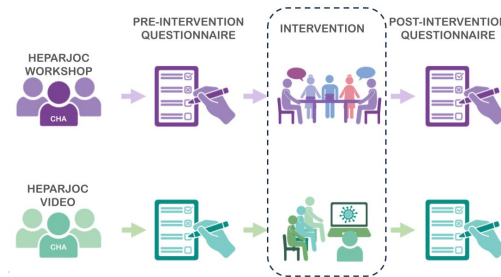
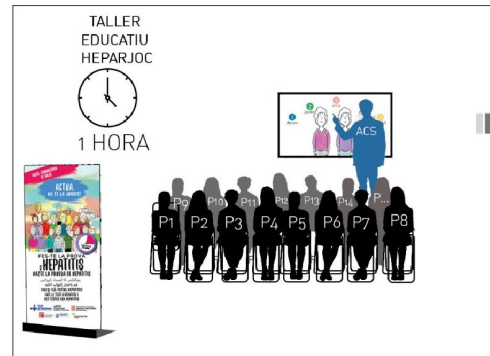


Table 1. Demographic and baseline characteristics of the study population, by type of Intervention. N = 505

Characteristics		Workshop n (%)	Video session n (%)	P value ^a	Total n (%)
Participants		156 (30.9)	349 (69.1)		505 (100.0)
Sex					
	Female	62 (39.7)	116 (33.2)	0.16	178 (35.3)
	Male	94 (60.3)	233 (66.8)		327 (64.8)
Age (mean \pm SD) ^{b1}		36.69 (11.4)	37.52 (10.9)	0.43	37.26 (11.1)
Age (grouped, years)					
	<30	54 (34.6)	104 (30.2)	0.59	158 (31.6)
	30-39	39 (25.0)	103 (29.9)		142 (28.4)
	40-49	44 (28.2)	90 (26.2)		134 (26.8)
	>50	19 (12.2)	47 (13.7)		66 (13.2)
Education level ^{II}					
	No education	18 (23.4)	9 (8.1)	<0.001	27 (14.4)
	Primary level	26 (33.8)	25 (22.5)		51 (27.1)
	Secondary level	20 (26.0)	53 (47.8)		73 (38.8)
	University level	13 (16.9)	24 (21.6)		37 (19.7)
Recruitment site					
Institutional sites/activities		0 (0)	341 (98.0)		341 (67.5)
	General Consulate of Pakistan in Barcelona	0 (0)	286 (82.0)		286 (56.6)
	National Holiday of Pakistan	0 (0)	55 (16.0)		55 (10.9)
Associations		139 (89.0)	0 (0)		139 (27.5)
	Pakistani Women Association (Casal Badalona)	11 (7.0)	0 (0)	<0.001	11 (2.2)
	Pakistani Cultural Association (ACESOP)	12 (8.0)	0 (0)		12 (2.4)
	Pakistani Families Association (Casal L'Hospitalet)	19 (12.0)	0 (0)		19 (3.8)
	Taxi Schools	58 (37.0)	0 (0)		58 (11.5)
	Ekumene Association	22 (14.0)	0 (0)		22 (4.4)
	Joan Pelegrí Institute	17 (11.0)	0 (0)		17 (3.4)
	Civil Society	17 (11.0)	8 (2.0)		25 (5)
	Private Homes	17 (11.0)	0 (0)		17 (3.4)
	Restaurant Business	0 (0)	8 (2.0)		8 (1.6)
Got screened for HCV		153 (98.1)	349 (100.0)	0.03	502 (99.4)
Completed both questionnaires		153 (98.1)	271 (77.7)	<0.001	424 (84.0)

^a From the Wald test.^b Results are displayed as mean (SD) instead of n (%), and the P value comes from the t-test of the differences in means.⁵ (0.01% of the total) missing values (mv) // ^{II} 317 (62.8%) mv



Table 3. Hepatitis C infection prevalence among screened participants by recruitment site. N=505

Recruitment sites	Total	HCV infection		P value ^d
	n (% ^a)	n (% ^b)	PR ^c (95%CI)	
Participants screened	502 (99.4)	23 (4.6)		
Government institutions	341 (68)	16 (4.7)	1	0.7
General Consulate of Pakistan in Barcelona	286 (57)	13 (4.6)		
National Holiday of Pakistan	55 (11)	3 (5.5)		
Associations	136 (27)	5 (3.7)	0.8 (0.3-2.1)	
Pakistani Women Association (Casal Badalona)	11 (2.2)	0 (0)		
Pakistani Cultural Association (ACESOP)	11 (2.2)	1 (9.1)		
Pakistani Families Association (Casal L'Hospitalet)	19 (3.8)	0 (0)		
Taxi schools (3)	58 (11.6)	1 (1.7)		
Ekumene Association	21 (4.2)	3 (14.3)		
Joan Pelegrí Institute	13 (2.6)	0 (0)		
Civil Society	25 (5)	2 (8)	1.7 (0.4-7.4)	
Private homes (2)	17 (3.4)	2 (11.8)		
Restaurant business	8 (1.6)	0 (0)		

^a In the first row, % of the total number of participants in the study (N=505). In the consecutive rows, % of screened participants (n=502).

^b Prevalence

^c Prevalence ratio calculated with Poisson regression.

^d From the Wald test

4. Networking and community empowerment



ASSOCIACIÓ CULTURAL EDUCATIVA I SOCIAL OPERATIVA
DE DONES PAKISTANESSES



Lessons learned / Recommendations

- Believing that networking, participatory with the community, makes actions complete, and consequently, better.

Community engagement:

Method: Participatory action research (PAR)



Lessons learned / Recommendations

- Need for previous meetings, with educational action and integrating the entities into the working group.
- Empowering the community favours the participation and involvement of organisations and people in the strategy