HEART HEALTHY HOODS

# ¿Influye el código postal en la dieta? Entornos alimentarios y desigualdades

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# Entorno urbano y alimentación: Heart Healthy Hoods en Madrid

1. Pensemos en nuestras ciudades

2. Sistemas alimentarios y entorno urbano

3. Proyecto ERC **Heart Healthy Hoods:** Entorno alimentario en Madrid, dieta y salud cardiovascular

4. **Photovoice Villaverde**: Un proyecto participativo sobre el entorno alimentario y la dieta

# Primero, unas preguntas

- Piensen en el lugar, barrio en el que viven
- Piensen en las oportunidades que tienen para mantener una dieta saludable donde viven.
- Piensen sobre cómo nos comportamos, con respecto a la dieta, todos los que vivimos alrededor de ustedes.

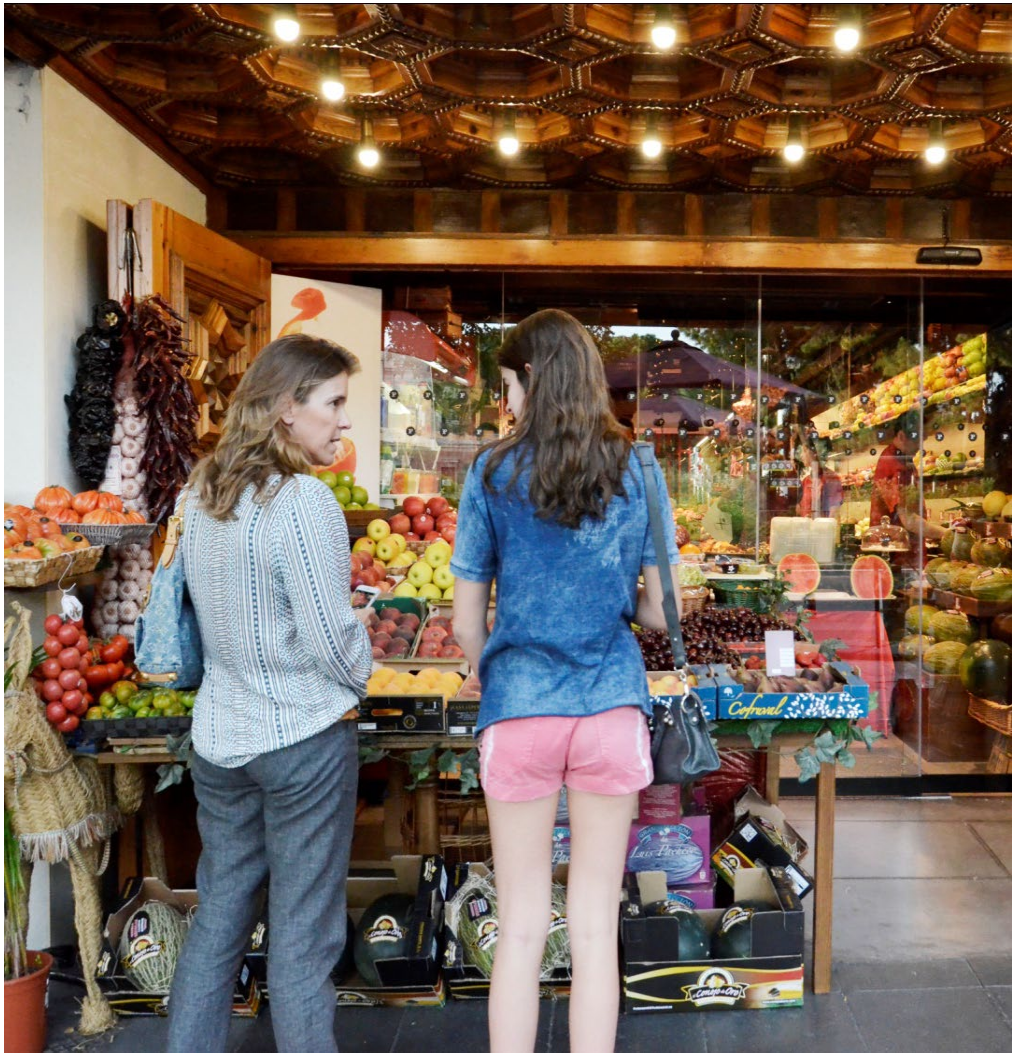
# Barrios y alimentación en Madrid, estudio HHH

María, 45 ys, resident of Villaverde. Low-income area.
María and her friends meet twice per week to have a dinner snack at the Dehesa Boyal park, a pinewood and main park in San Cristobal. María lives in Spain for the last 4 years, unemployed for the last 8 months, and she often thinks about coming back to the Dominican Republic where her family lives.

# Barrios y alimentación en Madrid, estudio HHH

Bar in las Ventas. Middle-income area.
This bar, decorated with bull fighting paraphernalia, is a prototypical bar in Madrid; well attended and serving people every age. Madrid residents love to spend time in bars where they can chat, drink and eat with friends and family. "I can cross Madrid with my friends for good bars with great food and beer. In this bar you get an incredible short beer with a great snack for 1,20€ !"

# Barrios y alimentación en Madrid, estudio HHH



Fruit and vegetables store in the Salamanca area. High-income area

Hilario, the owner, takes great pride; “We aim for the best client relationship. We know most of them by name, we bring only best quality produce, air conditioning, best freezers…” Prices in this store can be up to 4 times higher than in a low-income area.

# Oportunidades de la Investigación en Salud Urbana

1. En 2050: 66% de la población vivirá en ciudades.
2. Retos en salud: cronicidad y sus factores de riesgo.
3. Factores como: pobreza, desempleo, condiciones de trabajo.
4. Desigualdades y segregación.
5. Ciudad: oportunidad para mejorar la salud de millones.

   *(Franco, Bilal and Diez-Roux, Journal Epidemiol Comm Health 2015)*

6. Investigación interdisciplinar y con métodos nuevos
7. **Generar evidencias y actuar**

VERDURA
MADRID
AMOR BAUTISTA

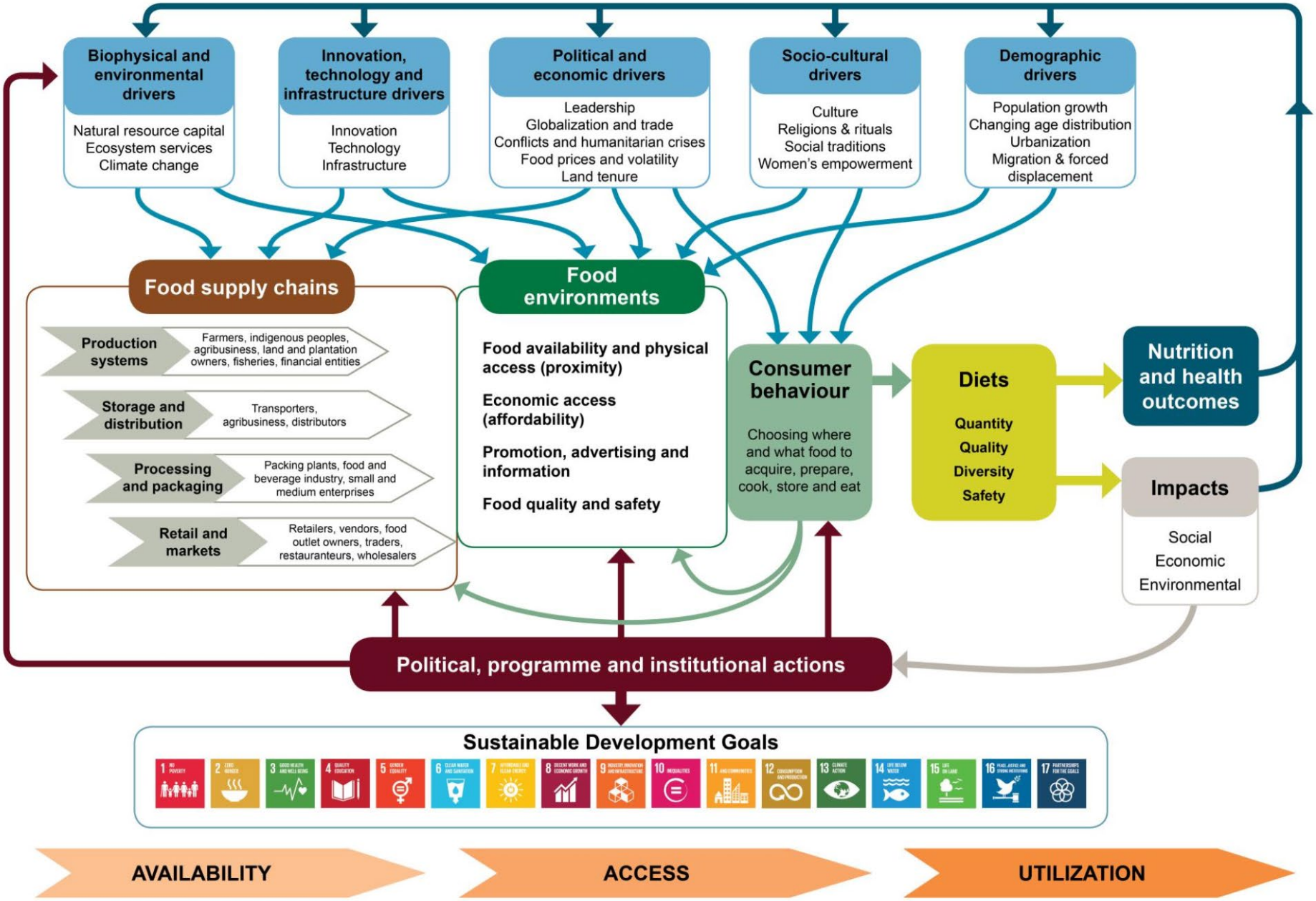
# Food systems, food environments

## in relation to Mediterranean diet

*Food systems refer to the elements and activities related to the production, processing, distribution, preparation and consumption of food. Also refers to its related health, economic and environmental outcomes.*

- Interest in the EU: Harnessing R&I for FOOD 2030
- Interest in the US: Center for a Livable Future Hopkins, UCDAVIS Sustainable Agriculture and Food Systems
- Interest at FAO´s Committe on World Food Security

**Figure 1 Conceptual framework of food systems for diets and nutrition**



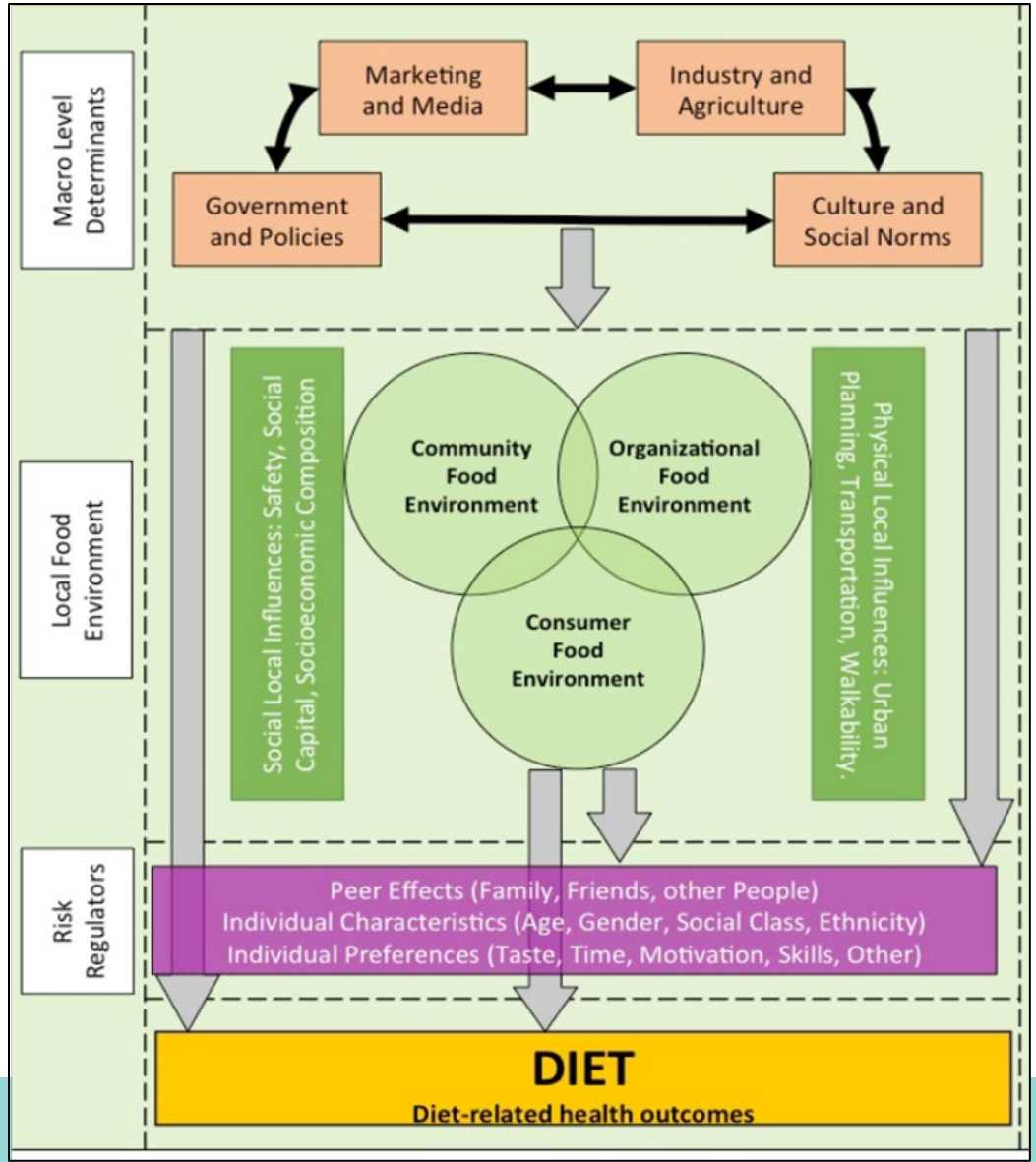

HLPE. Franzo J. 2017. Nutrition and food systems. FAO report. Committee on World Food Security

# Local food environment

- Places where we buy food influence food choices, making food environments an example of a mass influence on population diets

- Conceptual framework from:

  *Franco M., Bilal U., Díez J. (2016). Food Environment. In The Encyclopedia of Food and Health. B. Caballero, Finglas, P., and Toldrá, F. (Eds) Academic Press, Oxford: 3: 22-26*



# Estudio Heart Healthy Hoods

1. Starting Grant Consejo Europeo Investigación
2. Interdisciplinaridad
3. Métodos Mixtos
4. Participación ciudadana: Metodología Fotovoz
5. Acción: Comunicación y traslación a políticas

# Social and Physical Urban Environment and CV Health: The Much Needed Population Approach

Manuel Franco MD, PhD

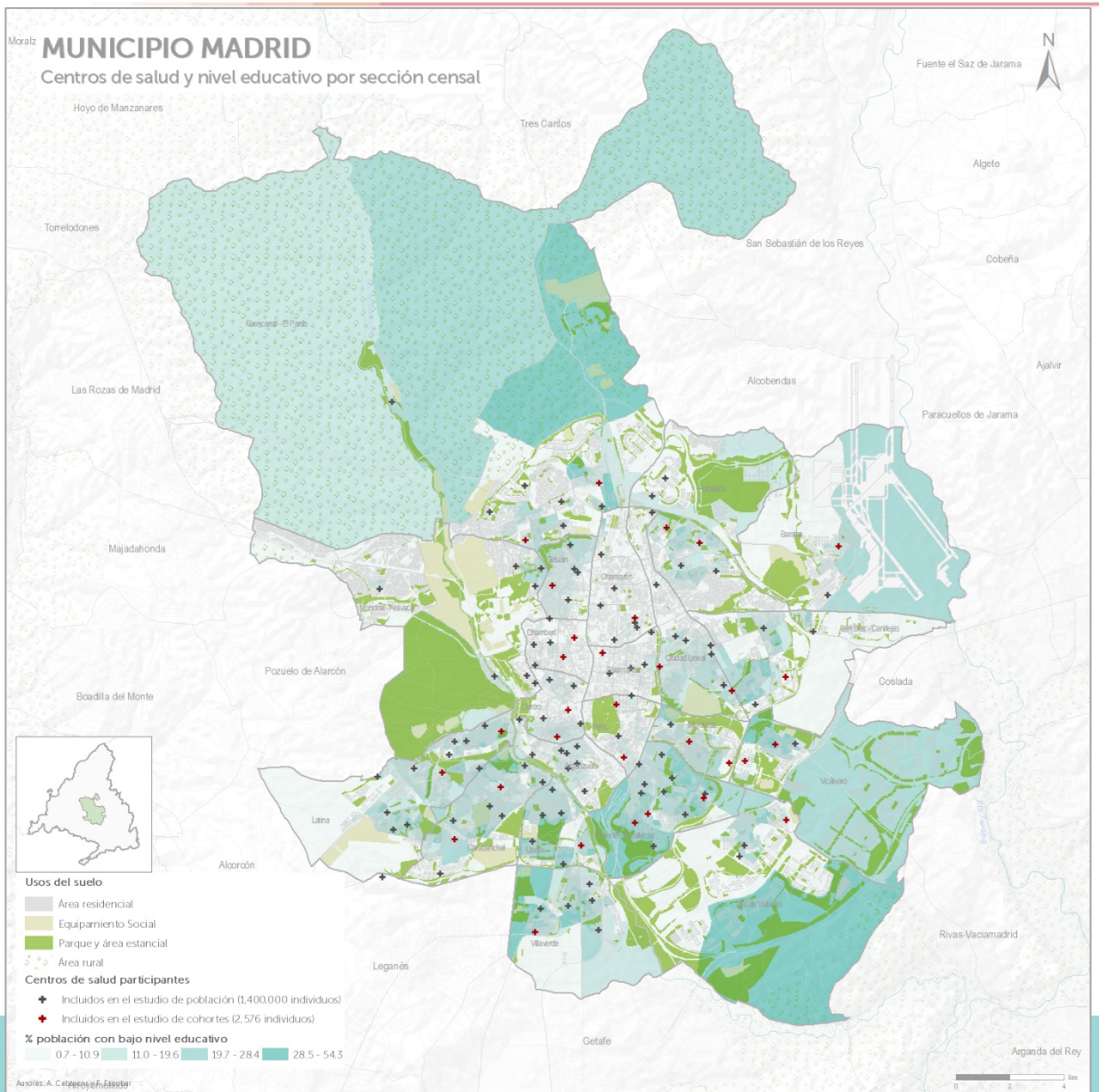
**Starting Grant 2013**

Start Date April 1st 2014

# ERC Starting Grants

| | |
|---|---|
| **FUNDING** | **1.5 million € for 5 years** |
| **OBJECTIVE** | To encourage independent careers of excellent investigators providing enough support in the critical moment (starting to develop their own team). |
| **ELEGIBILITY** | PI must have a PhD degree in the last 2 to 7 years. **Available to non-EU researchers.** |
| **REQUISITES** | At least one relevant publication without his/her thesis advisor |
| | At least 50% effort |
| **PROFILE** | **High potential, project with potential social Impact in Europe.** |

# MADRID CITY




21 Districts

128 Neighborhoods

2.412 **Census Sections**

(≅1.500 ps)

3,2 Mill. Residents

HHH will analyze the Integrated Primary Care Health System Electronic Health Records Database of 1,4 mill. residents 40-75 ys.

**One clearly identified policy maker**

# Interdisciplinary team

## PI: Social Epidemiology

### Geography

*University of Alcalá*

*CRESH Edinburgh*

*LSHTM*

### Health Sociology

*University of Salamanca*

*Johns Hopkins School of Public Health*

### Primary Care System

*Primary Care Research Unit, Madrid*

### Epidemiology

*University of Alcalá*

*Johns Hopkins School of Public Health*

### Photography

### Knowledge Dissemination

### Citizen Science

# HHH Kick off meeting Sept. 2014

## Equipo Interdisciplinar

# HHH Food research (Julia Diez)

- Mediterranean food environment (EJCN accepted)
- Validation of municipal data to characterize the **retail food environment** in the whole city of Madrid (Under review)
- Madrid Baltimore; Urban food environment cross-city differences (Preventive Med. 2016, Diez J et al.)

# Madrid Baltimore

# Urban food environment cross-city differences

Contents lists available at ScienceDirect

Preventive Medicine

journal homepage: www.elsevier.com/locate/ypmed

## Understanding differences in the local food environment across countries: A case study in Madrid (Spain) and Baltimore (USA)

Julia Díez [a], Usama Bilal [a,b], Alba Cebrecos [a], Amanda Buczynski [c], Robert S. Lawrence [c], Thomas Glass [b], Francisco Escobar [a], Joel Gittelsohn [d], Manuel Franco [a,b,*]

[a] Social and Cardiovascular Epidemiology Research Group, School of Medicine, University of Alcala, Alcala de Henares, Madrid, Spain
[b] Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States
[c] Center for a Livable Future, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States
[d] Global Obesity Prevention Center at Johns Hopkins, Department of International Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

# Walking access to healthy food

MADRID

BALTIMORE

| CATCHMENT AREA (m) | SURFACE COVERED BY Q3 STORES (%) | | PEOPLE COVERED BY Q3 STORES (%) | |
|---|---|---|---|---|
| | MADRID | BALTIMORE | MADRID | BALTIMORE |
| < 200 | 79 | 1 | 77 | 1 |
| 200 - 400 | 21 | 3 | 23 | 4 |
| 400 - 800 | 0 | 13 | 0 | 13 |
| >800 | 0 | 83 | 0 | 82 |

Preventive Medicine 2016, Diez J et al.

http://hhhproject.eu

# Mediterranean food environment

## Conclusions

### Research

Cross-cities comparisons are needed to understand urban food environments and promote healthy diets

Relying exclusively on supermarkets underestimates healthy food availability in Mediterranean cities

### Policy

Supporting more compact and diverse urban environments

# Desigualdades en el entorno alimentario de centros educativos en Madrid

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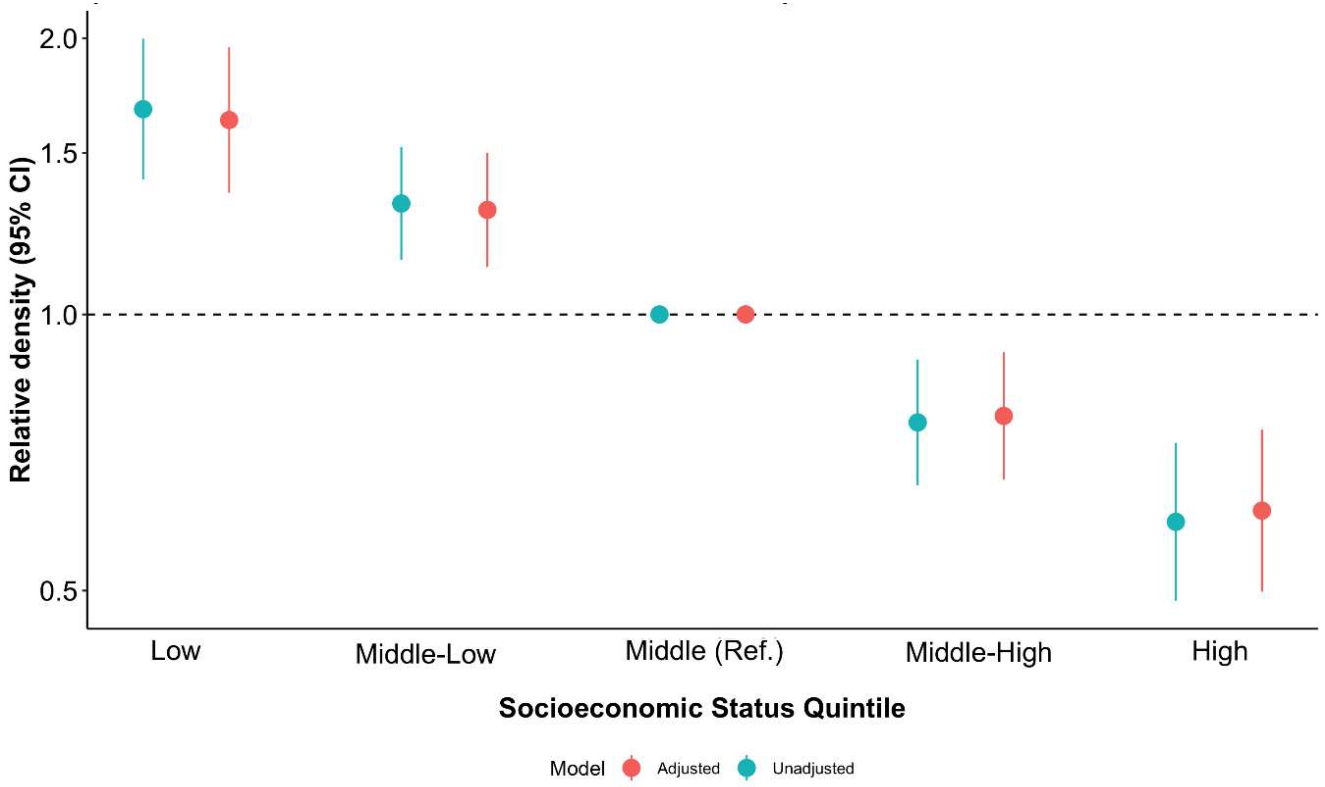


**Figure 2.** Multilevel negative binomial regression modelling neighborhood-level socioeconomic status with counts of unhealthy outlets around schools in Madrid (2017) before and after adjusting for population density.

**Figure 2.** Multilevel negative binomial regression modelling neighborhood-level socioeconomic status with counts of unhealthy outlets around schools in Madrid (2017) before and after adjusting for population density.

# La oferta de comida basura es mucho mayor junto a los colegios de barrios desfavorecidos

Un estudio pionero en el sur de Europa muestra que el 95% los escolares madrileños están expuestos a malos alimentos en la misma puerta del centro educativo

35

JAVIER SALAS

7 JUL 2019 - 00:08 CEST

Escolares en la puerta de un colegio madrileño. LUIS SEVILLANO

**El número de tiendas de este tipo alrededor de las escuelas en barrios desfavorecidos es hasta un 62% mayor que las de los barrios medios**

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# PHOTOVOICE VILLAVERDE PROJECT

Universidad de Alcalá

# A Participatory Action Research project to study and improve the food environment in Madrid

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Adjunct Associate Professor

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Johns Hopkins Bloomberg School of Public Health

# Participación: Metodología Fotovoz

- Metodología fotovoz permite a los participantes identificar y hacer un diagnóstico crítico de un determinado problema de salud pública
- Refleja las preocupaciones y posibles soluciones que los participantes dan a ese problema utilizando la fotografía y discusiones grupales
- Una visión profunda de la vida cotidiana de los residentes de una ciudad
- Fotovoz HHH sobre entorno urbano: alimentario, actividad física y alcohol

Ángel Frías

Amador Silebo

Daniel Rafael Mato

José Luis Carrero

Christine Funfrock

Esther Ortiz

Juani Moreno

Mercedes Bellot

Isabel Masa

Mª Soledad Olivo

Mercedes Rivera

Zakia El Khamlichi

Beatriz Criado

Juana Carulli

Sagrario Gómez

Encarnación Franco

Rosa Arana

Encarna Dopido

http://hhhproject.eu/research/photovoice/

# Photovoice Villaverde articles so far

1. Diez J, Health and Place, 2017
    - Free- downloadable Photobook: hhhproject.eu/photovoice
2. Diez J, Public Health Nutrition, 2017
3. Budig K and Diez J, BMC Public Health 2018
4. Gullón P and Diez J, IJERPH 2018

# Methods: Participatory data analysis

- Participants took 163 photographs, and identified 30 categories emerging from the photographs and discussions.
- Final categories were then organized around *five themes of the food environment related to dietary behaviors :*

1. Eating in moderation
2. Cultural diversity
3. Food stores
4. Social relationships
5. Economic crisis and poverty

*Diez. J. Health and Place, 2017*

et al. BMC Public Health (2018) 18:432
https://doi.org/10.1186/s12889-018-5335-7

RESEARCH ARTICLE Open Access

# Photovoice and empowerment: evaluating the transformative potential of a participatory action research project

Kirsten Budig[1†], Julia Diez[1†], Paloma Conde[1], Marta Sastre[2], Mariano Hernán[3,4] and Manuel Franco[1,5*]

**Fig. 1** Female participants of the Photovoice project conducted in the District of Villaverde, Madrid (Spain), 2016

**Fig. 2** Public presentation of the photographic exhibition of the Photovoice project, Madrid, 2017. Participants chose the final photographs they wanted to be included in the photographic exhibition and were involved in all dissemination activities

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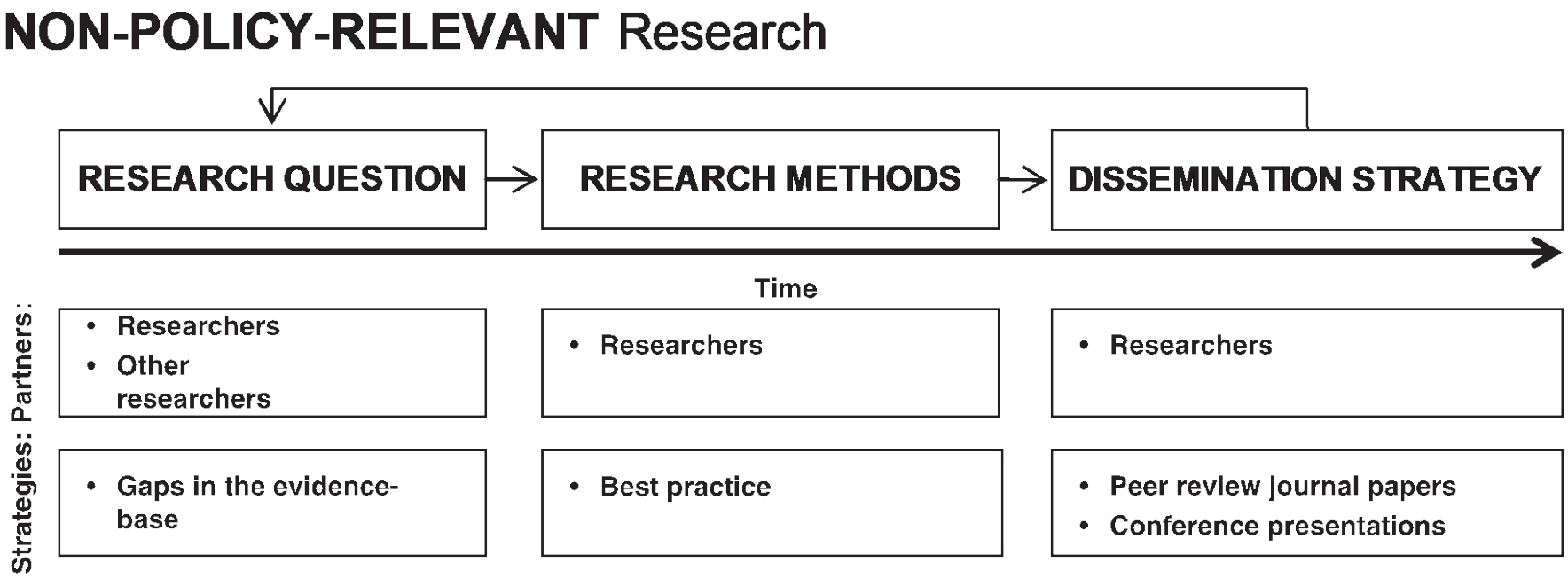
5. Acción: Comunicación de la evidencia científica y traslación de la evidencia a políticas e intervenciones

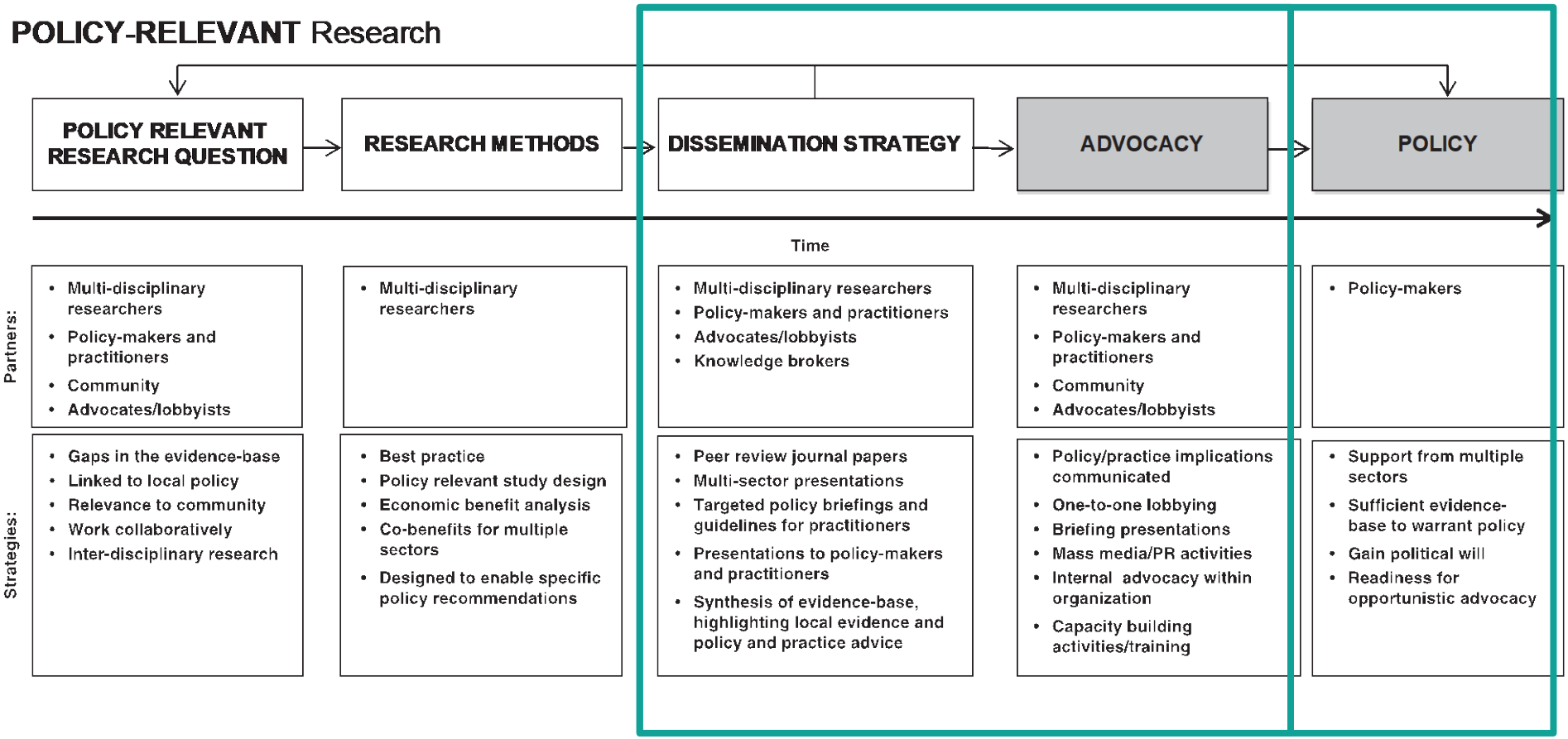
# Translating urban health research into policy and practice

## *De la evidencia a la acción*




Gilles-Corti et al. Journal of Public Health Policy 2015 Vol. 36, 2, 231–243

# Acción: Comunicación y traslación




Gilles-Corti et al. Journal of Public Health Policy 2015 Vol. 36, 2, 231–243

# Acción: Comunicación
# Resultados Fotovoz Villaverde

- Residents participated in dissemination and communication strategies to promote social action:
  - Photobook
  - Exhibition
  - Video
  - Citizen Science meetings
  - Interactive Cartography
  - Media collaboration

# Acción: Comunicación
# Resultados Fotovoz Villaverde

- Free- downloadable Photobook: hhhproject.eu/photovoice

# Traslación de la evidencia científica a políticas e intervenciones

- Two citizen science meetings. Participants presented results and policy recommendations to local policymakers

# Acción: Comunicación
# Photovoice Villaverde videos

HHH: https://youtu.be/VIiFggKzVas

ERC: https://youtu.be/mGGIDtAeZZY

HEART HEALTHY HOODS
www.hhhproject.eu

European Research Council
Established by the European Commission
Supporting top researchers from anywhere in the world

# A CITIZEN SCIENCE APPROACH FOR FOOD IN THE CITIES, THE HEART HEALTHY HOODS ERC PROJECT: EXHIBITION AT THE EUROPEAN PARLIAMENT

European Parliament will host from May 2nd through May 10th an exhibition on this project

The exhibition, which has the impulse of MEP Estefanía Torres, will be visible at the

**Mezzanine YEHUDI MENUHIN, PHS building 1st Floor, European Parliament**

**Official public opening Thursday 4th at noon, registration at 11:30 am**

# Communicating photovoice results
# European Parliament May 4th 2017

# HHH Urban food environment results
# European Commission Oct 16th. 2017

European Commission

'Harnessing Research & Innovation for FOOD 2030: A Science Policy Dialogue'


**Abstract:**

This one day conference will serve to disseminate successful European Research and Innovation (R&I) initiatives and contribute to the ongoing science-policy dialogue in the area of Food Nutrition and Security (FNS).

# Agradecimientos

- HHH participants
- HHH Madrid team and collaborators
- Funding agencies:
  - **European Research Council**
  - Ayuntamiento y Comunidad de Madrid
  - Fondo de Investigación Sanitaria
  - Plan Nacional de Investigación
  - Plan Nacional Sobre Drogas
  - Fundación Mapfre
  - Center for a Livable Future, Johns Hopkins

# ¡Muchas Gracias!

# Gracias!

## @mfranco_uah

## @HHHproject

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