



Food 2030 October 16th. 2017



Policy relevant food research for improving urban populations diets



Manuel Franco MD, PhD

Associate Professor

School of Medicine, University of Alcalá, Spain

Adjunct Associate Professor

Department of Epidemiology

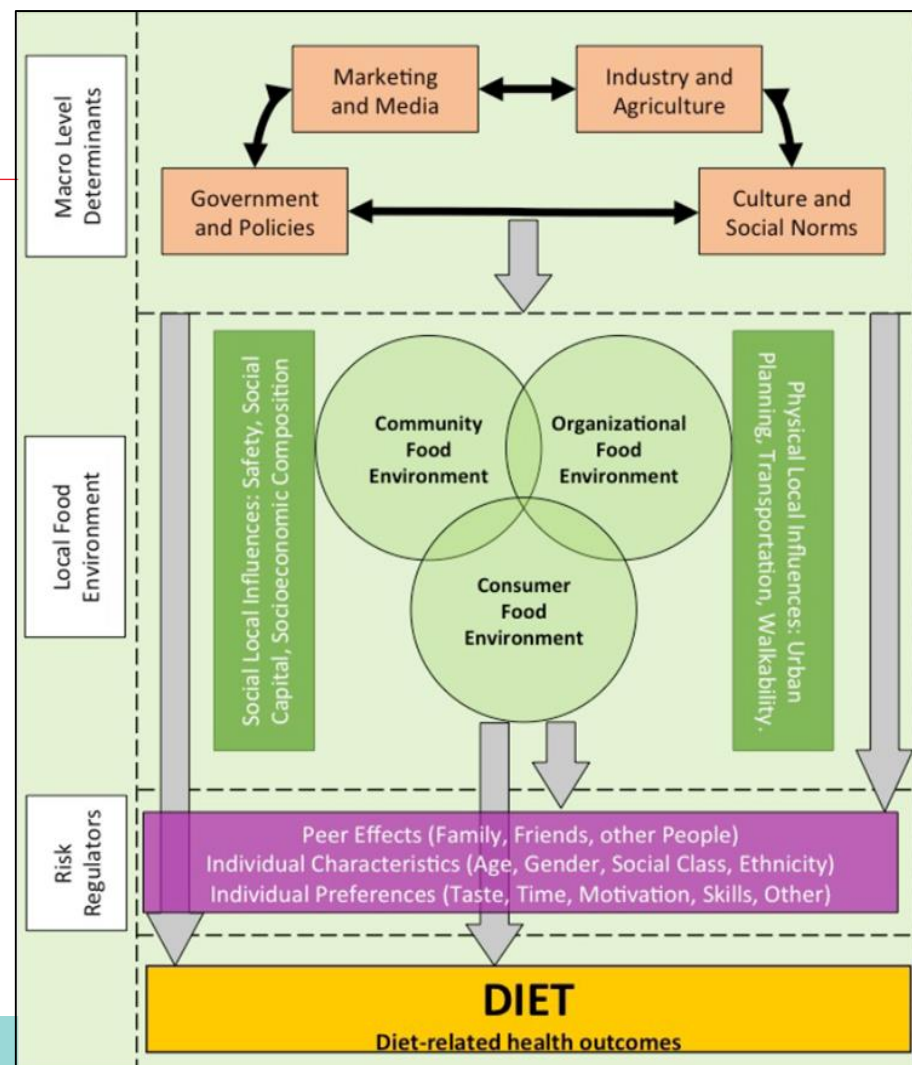
Johns Hopkins Bloomberg School of Public Health, Baltimore



Urban Food Environment

- Diet is a chronic disease risk factor highly influenced by the local food environment.
- Urban health relevance:
 - 2050 2/3 of world population
 - Chronic diseases and aging
 - Health inequalities
- Urban food environment is an example of a mass influence on population diets and health.

*Franco M. et al. (2016). **Food Environment.** Encyclopedia of Food and Health. Academic Press, Oxford*





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



Manuel Franco MD, PhD

Starting Grant 2013

Heart Healthy Hoops Study

Main Goal

Cardiovascular
Health

Tobacco

Smoking

Physical Activity

Physical
Activity

Food

Obesity

Alcohol

Diet
Alcohol

Social
Environment

Physical
Environment

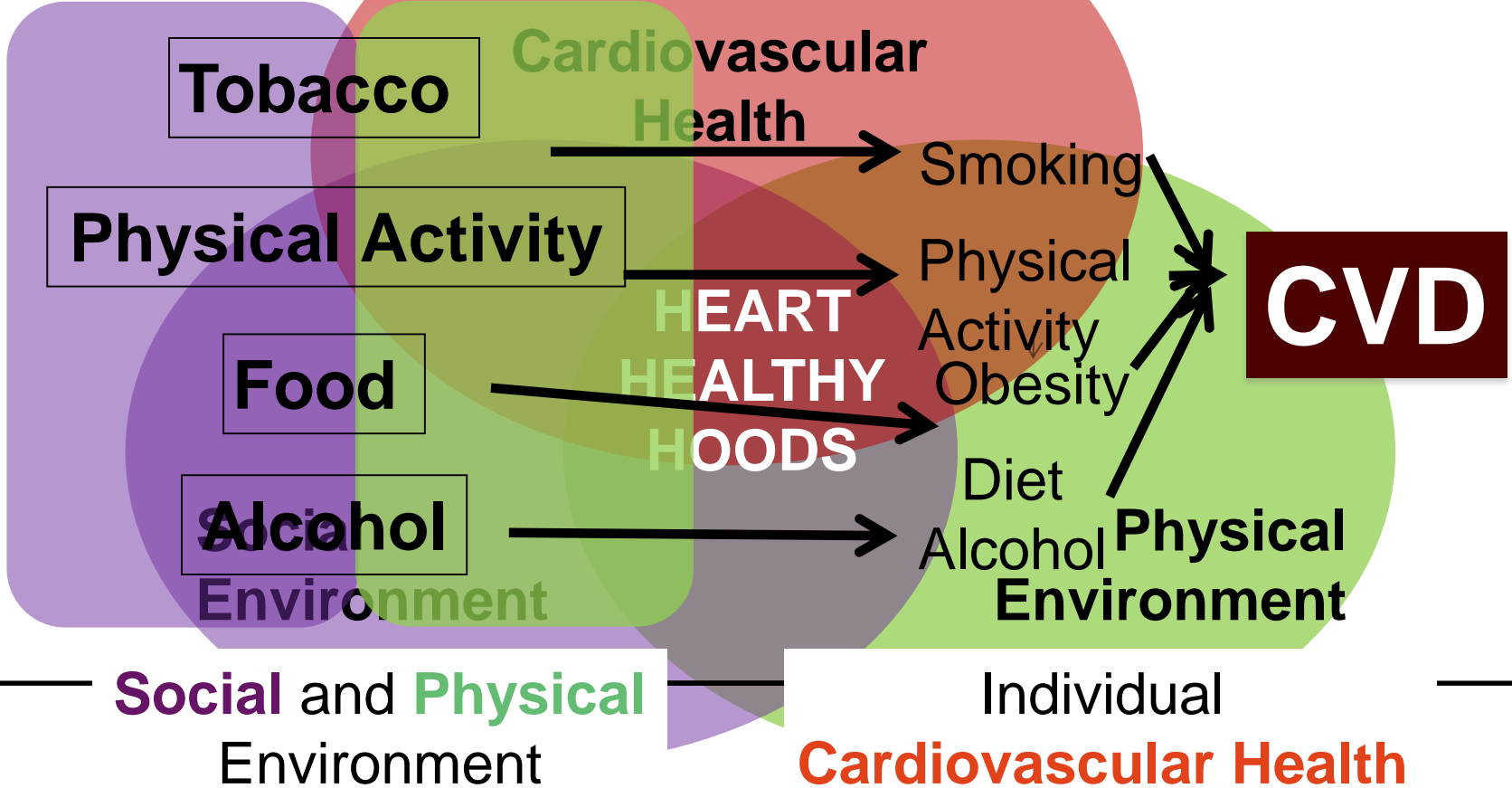
CVD

HEART
HEALTHY
HOOPS

Social and Physical
Environment

Individual

Cardiovascular Health





HHH overarching objective



Policy and research implications

To provide scientific evidence to **researchers, general population and policy makers** to intervene at the population level preventing 1ST cause of death in Europe

R&I impact: *Methods, articles, conferences.*

Social impact: *Participation, communication, policy making*



Kick off meeting Sept 2014

Interdisciplinary team



PI: Social Epidemiology
Geography
Sociology
Primary Health Care
Epidemiology
Health Policy
Photography
Communication



Urban food environments



Mediterranean urban food environments

share unique characteristics:

1. *Diversity*

(Types of food stores)

2. *Compactness*

(Shorter distance)

Diez J, Bilal U and Franco M,
EJCN, 2017, accepted.





AIM

- To examine whether municipal data are a valid source to characterize the **retail food environment** in the whole city of Madrid.
- To test whether indicators of validity differed by area-level deprivation.

1. Analyse data context

2. Collect on-field data

3. Collect municipal data

4. Validate municipal data

5. Rate healthy food access

6. Translate results for government & stakeholders



Table. Validity of municipal data sources as compared with ground-truthed data (n=117) for the location of food stores in the city of Madrid, Spain.

MUNICIPAL DATASET				
Type of store	Sensitivity	95% CI	PPV	95% CI
Supermarkets	100.0%	83.9% , 100.0%	91.3%	72.0% , 98.9%
Small grocery	86.7%	73.2% , 94.9%	59.1%	46.3% , 71.0%
Convenience	100.0%	87.0% , 100.0%	100.0%	87.0% , 100.0%
Specialized	87.5%	74.8% , 95.3%	42.9%	32.9% , 53.3%

95% CI: Confidence Interval; Est. = Validity Statistic Estimate



Mediterranean food environments R&I and Policy conclusions

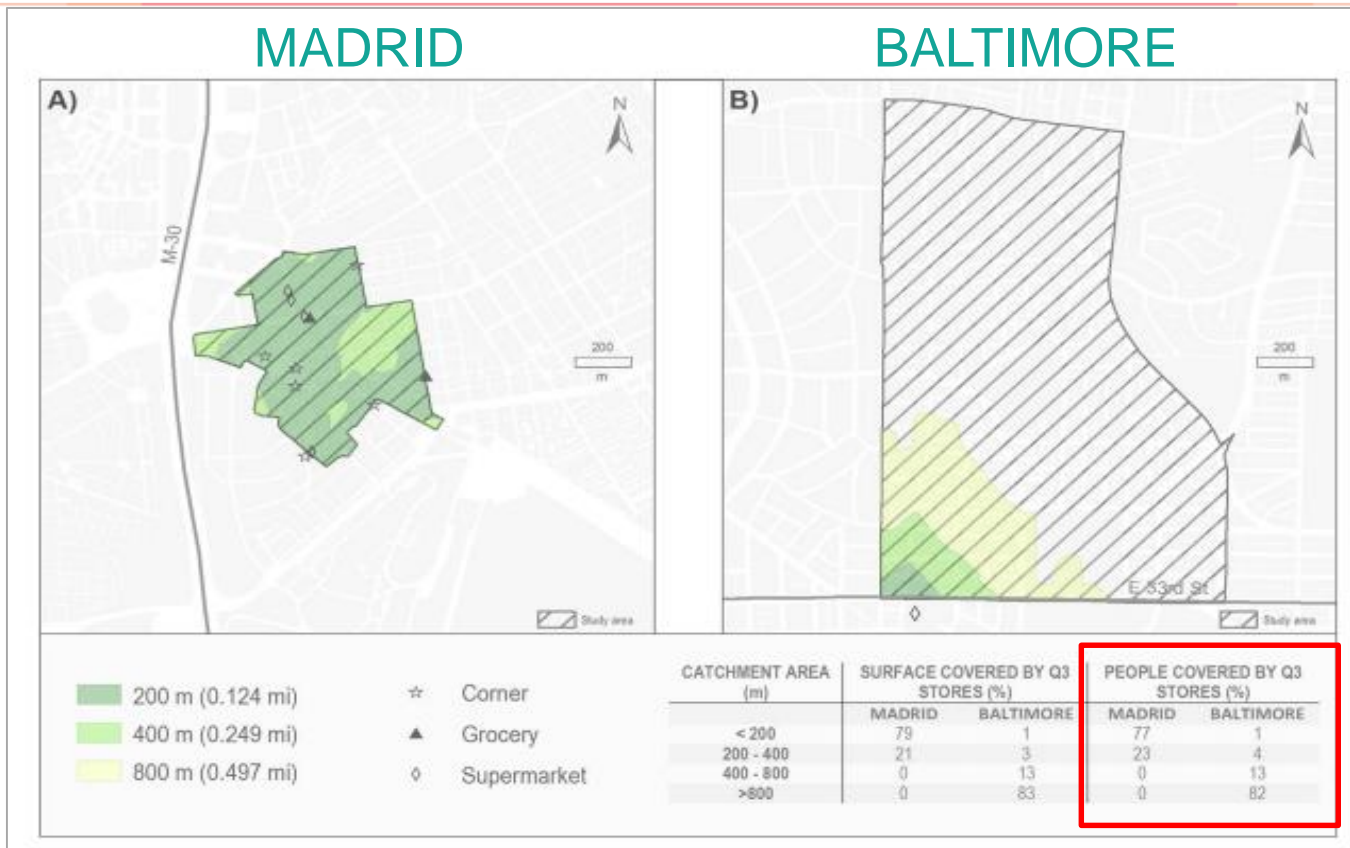


- Our step-wise approach allows other cities to assess an entire city
- For effective food policies, governments and stakeholders need accurate information on the retail food environment to:
 1. Evaluate availability and access of healthy/unhealthy food
 2. Compare between cities, regions or countries
 3. Identify and track changes over time
 4. Evaluate the impact of the RFE on health outcomes



Comparing local food environments

Pedestrian access to high-healthy food



R&I and Policy conclusions

Research

- Cross-cities comparisons are needed to promote healthier diets
- Relying exclusively on supermarkets underestimates healthy food availability in MED cities

Policy

- Supporting more compact and diverse urban environments





PHOTOVOICE VILLAVERDE PROJECT



A Participatory Action Research project to understand the food environment in Madrid



Manuel Franco MD, PhD

School of Medicine, University of Alcalá, Spain

Department of Epidemiology

Johns Hopkins Bloomberg School of Public Health



What is Photovoice?



- Photovoice is a participatory-action research method.
- Enables participants to identify, capture, and reflect their community's strengths and concerns through group discussions and photography
- Informs policy makers to pursue relevant public policies





Results



- 24 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

Theme 1: Eating in Moderation



"A delicious dish of chorizo."
(Male, 69 years, retired)

Theme 5: Economic crisis and poverty



"Extreme necessity. This man does not get any help besides from the trash bin."
(Woman, 44 years, retired)



Policy relevant research: Translation into recommendations



Participatory action Research/Photovoice

Research Translation Process (Ongoing)

STEPS	1. CREATING A PARTNERSHIP	2. RESEARCH QUESTION STUDY DESIGN	3. DATA COLLECTION /ANALYSIS	4. DEVELOPING RECOMMENDATIONS	5. DISSEMINATION	6. ADVOCACY	7. POLICY /CHANGE
PARTNERS	Multidisciplinary Researchers Health promotion practitioners	Multidisciplinary Researchers Health promotion practitioners	Multidisciplinary Researchers Health promotion practitioners Community	Multidisciplinary Researchers Health promotion practitioners Community	Multidisciplinary Researchers Health promotion practitioners Community Policy Makers	Multidisciplinary Researchers Health promotion practitioners Community Policy Makers	Policy Makers



Policy recommendations (ranked)



1. Offering local leisure time activities to avoid unhealthy behaviors (e.g. snacking, alcohol, sodas)
2. **Improving food banks management**
3. **Reactivating traditional markets and small retailers**
4. **Improving food hygiene conditions**
5. Promoting availability of organic foods and for patients (e.g. diabetes and celiac dis.)
6. **Reducing food waste**
7. Improving nutrition labeling
8. Offering healthier alternatives to workplace vending machines
9. Teaching food education at schools
10. **Promoting healthy social networks for older people**
11. Giving street vendors legal status



Residents participated in dissemination and communication strategies:

- Media collaboration
- Photobook
- Exhibitions
- Video
- Citizen Science meetings





Communicating photovoice results



Free- downloadable

Photobook:

hhhproject.eu/photovoice

Photovoice Villaverde

Un estudio participativo sobre la alimentación a través de la fotografía
A participatory study on food through photography





Photovoice results

- Exhibition in six different venues, Madrid and Brussels
- 6 months at the third most visited cultural center un Madrid





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





Citizen Science and food in the cities

European Parliament May 4th 2017





Photovoice a succesful story



- Citizen science, participatory-action research method.
- Five methodological workshops in Spain and the US
- Four research articles
- Direct policy dialogue
- Bilingual and multifacetic communication strategy:
 - Photobook, video, exhibitions, media



Further R&I work in Food 2030



- 1) Support for interdisciplinary teams and mixed methods
- 2) Citizen science and participatory-action research
- 3) Well-designed urban food interventions and evaluations from a Public Health Nutrition perspective
 - A. Collaborative policy-research teams and designs
 - B. State of the art nutrition and health measurements



Acknowledgements



- HHH participants
- HHH team and international 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



Thank you very much !

