

# 2nd Annual National Health Impact Assessment Meeting

SEPTEMBER 24-25, 2013 | WASHINGTON D.C.  
SEPTEMBER 26 – Post-Conference Discussion Sessions



UNIVERSIDADE FEDERAL  
DE SANTA CATARINA



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## A five years literature review on HIA subject, methods and quantification

### 1 Introduction

Health Impact Assessment (HIA) has been claimed as pluralistic type of assessment due its large spectrum of subject coverage and as lacking of regulation in several countries (Cornburn and Bhatia, 2007; Mindell *et al.*, 2008).

### 2 What is this research about?

This research investigates HIA academic publications from 2008 to 2012.

### 3 Why it was carried out?

- Few countries have mandatory HIA implementation, and there was observed need for health aspects embedding in policies, plans and programs.
- Even when not mandatory HIA is the case, other forms of impact assessment lack consistence because health cannot be ignored in the whole environmental context.
- HIA research is presenting a blossoming in academic world, with fast advances in the last years, mainly in theoretic aspects.

### 4 What are the core research questions?

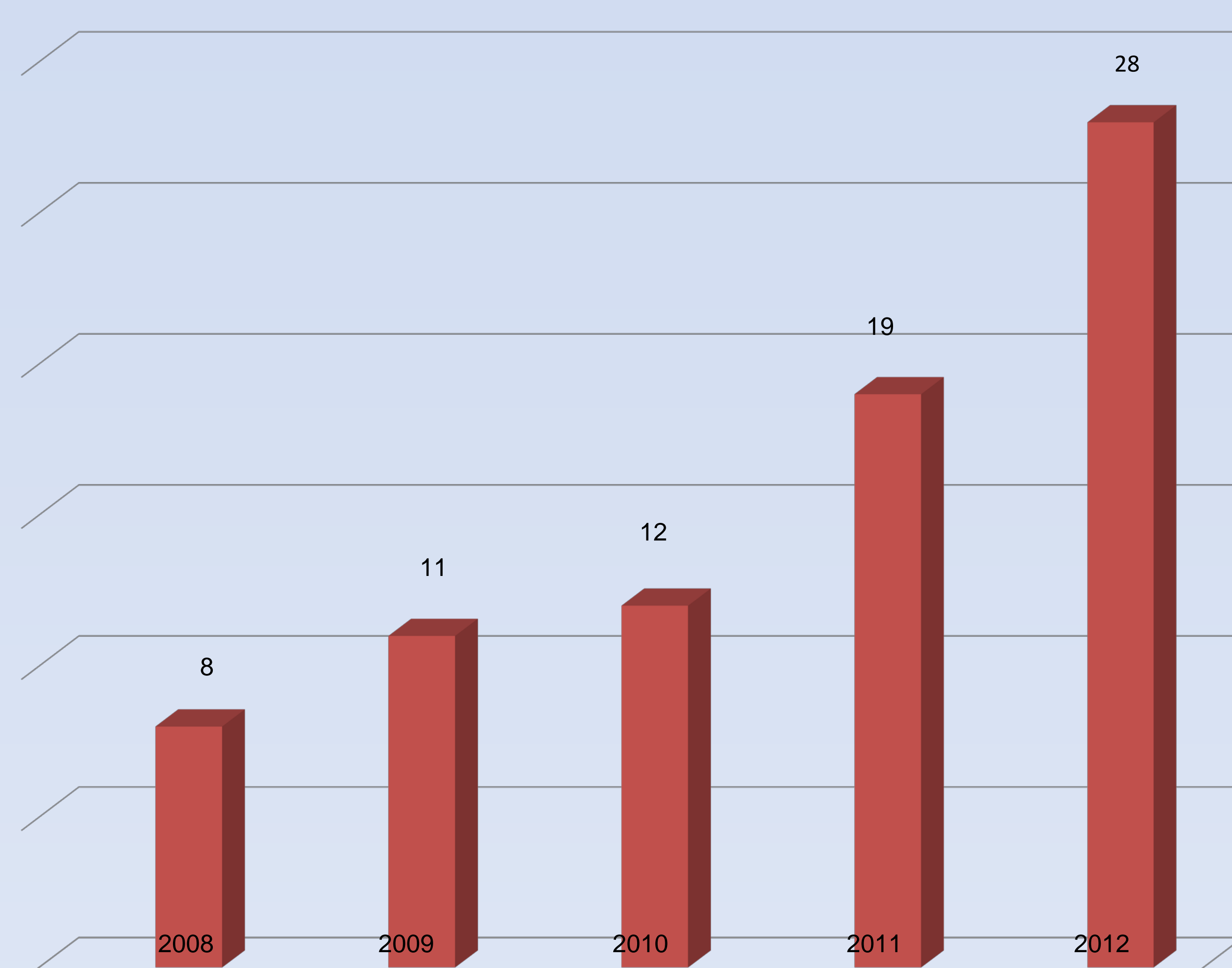
- Q1**- What is the **main subject** proposed for the selected studies?
- Q2** - What are the **methods** adopted by their authors?
- Q3** - Is there any **measuring** performed in these studies?

### 5 What was the adopted methodology?

Bibliographic research  
Sources: Scopus/Science Direct  
Key expression "Health Impact Assessment"  
Mode: "title" in advanced search mode

### 6 Results - general

78 academic studies found in 5 years



### 6 Results – Main subject – Q1

There were found **20 articles straightly related to HIA**:

2008 = 3; 2009 = 1; 2010 = 1; 2011 = 9; 2012 = 6.

Studies directly related to HIA are mainly concerning with **frameworks** proposal (2008), **state-of-the-art** (2008) or **review** of historical aspects (2011), **conceptualization** (2009); **quantification** (2011), **critical analysis** (2011, 2012), and **collaborative** aspects (2011).

**Community participation** in HIA appears in 2 studies in 2009, 2 in 2010, and in 6 studies in 2011. **Equity and justice** are related in 2 studies (2008, 2010), and health effect of climate change in other 3 studies (2008, 2010, 2012).

### 6 Results – Methods adopted – Q2

A wide range of methods and tools was employed: **direct measuring** of variables, **documentation** analysis, and **framework** development, each one in 8 cases along the five years considered.

**Framework development was mostly employed since 2010 studies**, as well as **mixed methods** which include concepts mapping, brainstorming, focus groups, interviews, checklists and participatory tools.

It is noticeable that some studies published in 2008 and 2009 have not explicit methodological approach - they rely mainly on **description of local situations of health assessment**.

### 6 Results – Use of measuring – Q3

**Quantification is a critical subject in HIA studies.**

There were found **39 studies presenting some type of quantification**, but, it is not always explicit whether quantifications rely on the main subject of research or are simple replication of previous studies.

**Indicators** of health exposure and socio-demographic statistical are still widely employed, but they are giving space for **social and livability** measures, **transport/mobility**, and **behavior/mental indicators** of health.

From 2008 to 2010, HIA studies present a balance in terms of quantification and not quantification procedures. **From 2011 on qualitative, heavily descriptive and theoretical research became more employed**. 15 of 19 selected articles published in 2011 were qualitative. **In 2012 quantitative studies predominated** (17 of 28), however **critical appraisal** of HIA, under descriptive studies, keep blooming. It is likely due persistent attempts to find a more consolidated set of theoretical ground for HIA field.

### 7 Final remarks

- HIA has been deployed in several subfields of assessment
- HIA studies present a wide range of methods – framework development can be highlighted.
- Quantification is still a critical issue.
- Critical studies have arisen mainly since 2011.

### 8 Summary of references – years/authors

2007 - Corburn and Bhatia  
2008 - Beaglehole *et al.*, Backman *et al.*, Dannenberg *et al.*, Kruk and Fredmann, Mindell *et al.*, Sicilia and Purroy, St. Louis and Hess, Tang *et al.*  
2009 - Bacigalupe *et al.*, Harris *et al.* (a), Harris *et al.* (b), Hillarion *et al.*, King *et al.*, Kornov, Metcalfe and Higgins, Porta *et al.*, Rifkin, Scammell *et al.*, Van der Voet *et al.*  
2010 - Chilaka, Draper and Rifkin, Fischer *et al.*, Forsyth *et al.*, Frazzoli *et al.*, Füssell, Kelahe *et al.*(a), Kelahe *et al.* (b), Su *et al.*, Wagemakers *et al.*, Walker, West and Scott-Samuel.  
2011 - Bhatia, Bhatia and Seto, Cameron *et al.*, Harris and Spickett, Harris-Roxas and Harris, Inmuong *et al.*, Jabbar and Abelson, Kang *et al.*, Kearns and Pursell, Keglér *et al.*, Kwiatkowski, 2011, Morgan, Pennock and Ura, Posas, Shandro *et al.*, Spickett *et al.*, Weden *et al.*, Winckler *et al.*, Wu *et al.*  
2012 - Aldasoro *et al.*, Bierkens *et al.*, Brenner *et al.*, Brody *et al.*, Carmichael *et al.*, Dhondt *et al.*, Fantke *et al.*, Haigh *et al.*, Hebert *et al.*, Hoehner *et al.*, Hoshiko *et al.*, Huang *et al.*, Irizar *et al.*, Maidin *et al.*, Molnar *et al.*, Morgan, Negev *et al.*, O'Mullane and Quinlivan, Omar *et al.*, Pagliarello and Tabolli, Perdue *et al.*, Pérez-Molina *et al.*, Rango *et al.*, Richardson *et al.*, Rojas-Rueda *et al.*, Ross *et al.*, Snell *et al.*, Synder *et al.*