

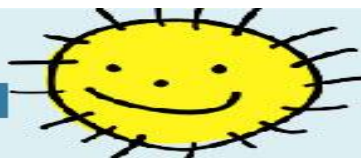
# Designing & implementating the SoL local community program – a multi-level and multi-component health promotion program

*Bent Egberg Mikkelsen*

*Professor & SoL Principal Investigator*

*Tallinn, November 5, 2015*

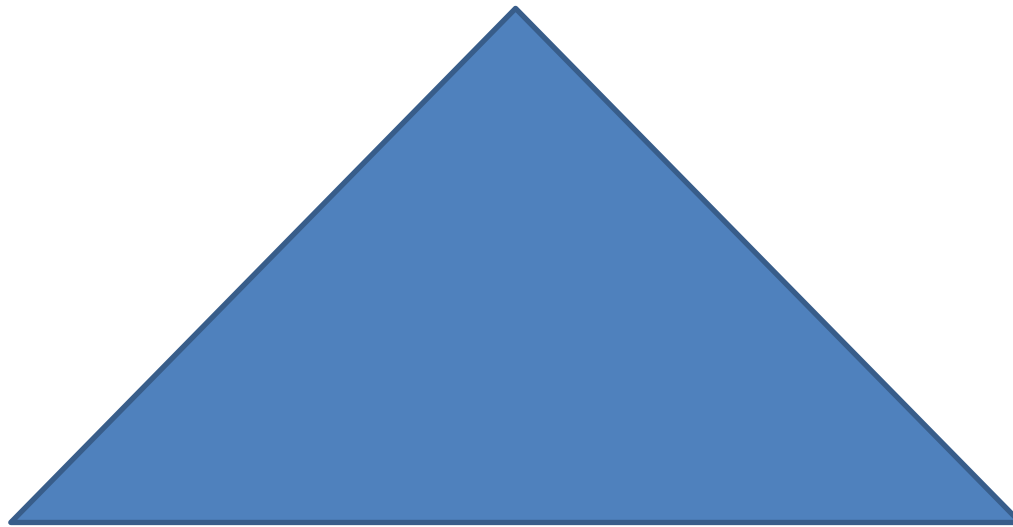
**Abstract:** There is a growing interest for health promoting interventions addressing the environment in the settings of everyday life and a growing number of interventions that aims to “do more things in several places” in order to add intensity have been developed. Such interventions have become known as multi-level and multi-component interventions and are aiming at impacting the totality of the local community foodscapes and different arenas in order to induce behavioural change. The paper presents the SoL program that was implemented in the three neighborhoods at the isle of Bornholm. The program works through an integrated approach where promotion of health eating and non-sedentary behavior is coordinated across supermarket, media, school & kindergarten setting. SoL is building conceptually on a partnership between representatives from civil society, community-based associations, businesses and the public administration. The primary target group is families with children aged 3-8 years-old. A broad range of outcome measures are measured baseline and follow up. The paper will present some of the findings on the media component of the program as well as some of the lessons learnt from developing the components in participatory manner in cooperation with a long range of local community stakeholders



# PHN Strategies

the EDE model

Environment design



Education

Enforcement

Modified after the '5 E's model (Engineering Education Encouragement Enforcement and Evaluation)'

# Why these communities

Category	Characteristic	Unit	Bornholm	Odsherred	Capital Region
Geophysics	Population	1000	41	32	1.754
	Area. Square km	km <sup>2</sup>	588	355	2568
Health status	Overweight, BMI $\geq 25$	%	50	53	41
	Diabetes	%	6,5	5,7	4,5
	High blood pressure	%	16	23	22
Health behavior	Citizens with very unhealthy diet behaviors	%	14	16	10
	Citizens with < 30 min/day MVPA behavior	%	36	41	31
	Citizens with self perceived poor health	%	18	21	15
Socio Economic Position (SEP)	Without occupational affiliation	%	26	28	19
	Without higher education (only prim. rr sec. school)	%	19,1	18	7,6

# Potentials of the “local”

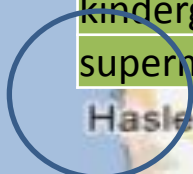
“A geographical area where citizens objectively have & subjectively feel a social & functional community”

Sundbo

# High-intensity intervention sites



Allinge/Sandvig	Citizens	Settings	Sample
school	1700	1	71
kindergarten		2	51
supermarket		2	



Hasle	Citizens	Settings	Sample
school	1700	1	76
kindergarten		1	38
supermarket		2	



Nexø	Citizens	Settings	Sample
school	5000	1	160
kindergarten		3	47
supermarket		3	

1. Islanders are more homogeneous as a sample
2. Islands are more isolated = easier measurement



<https://www.youtube.com/watch?v=BMqM-21rZPU&feature=youtu.be>

# “Do more things ...more places”

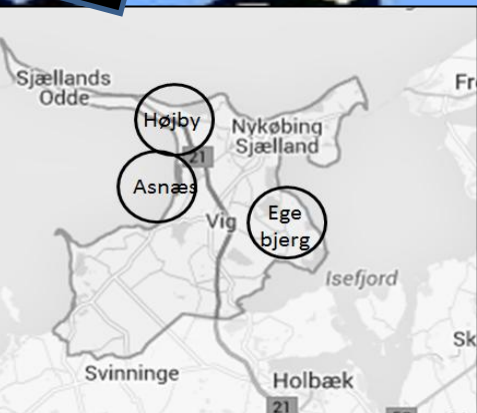
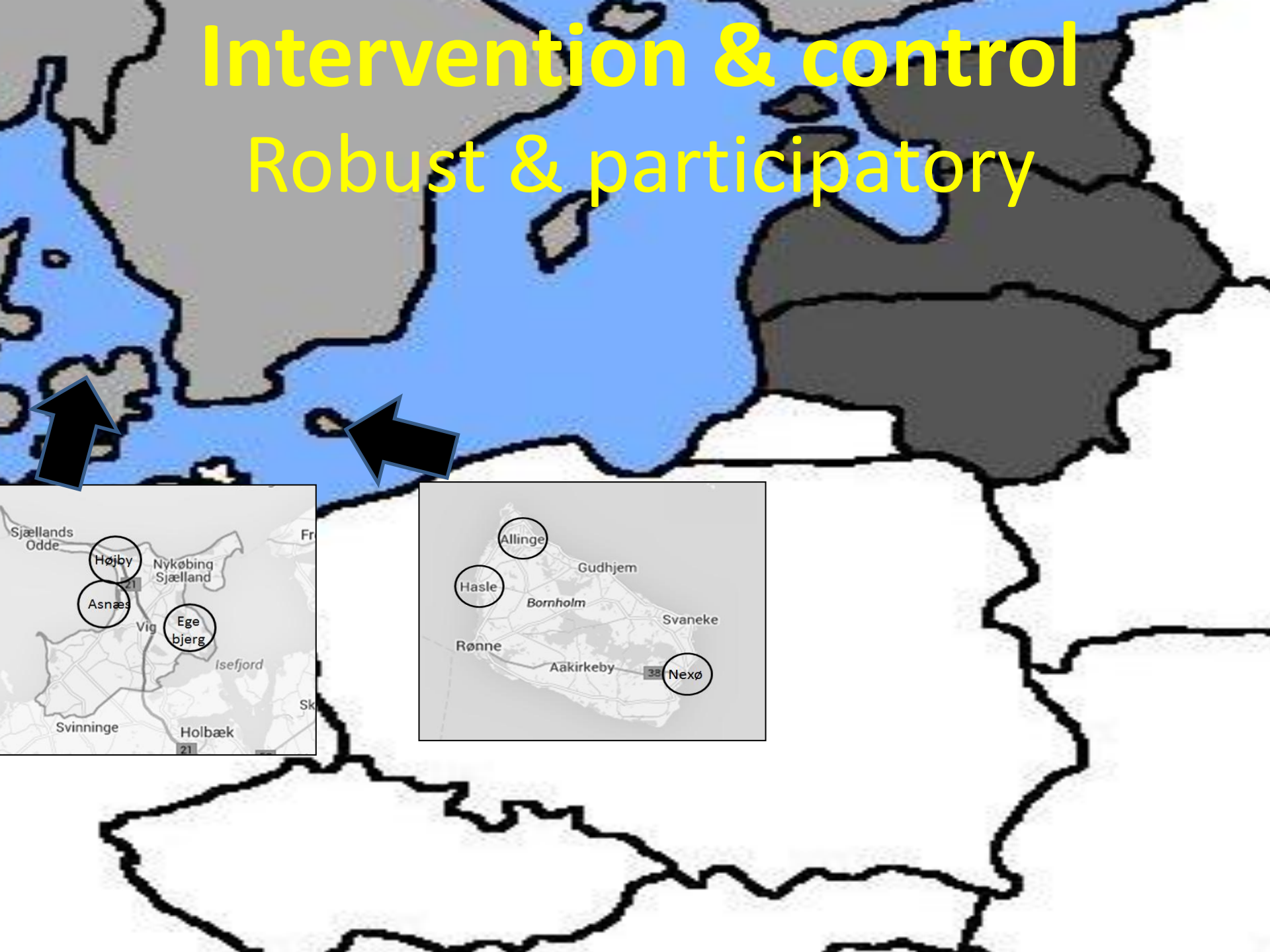
Multi-Level Multi-component (ML-MC)

To activate coordinated  
thematic interventions across  
more settings at the same time  
in order to increase intensity

Mikklesen, Novotny & Gittelsohn MULTI-LEVEL, MULTI-COMPONENT  
APPROACHES TO COMMUNITY BASED INTERVENTIONS FOR HEALTHY LIVING  
– A THREE CASE COMPARISON,

# Intervention & control

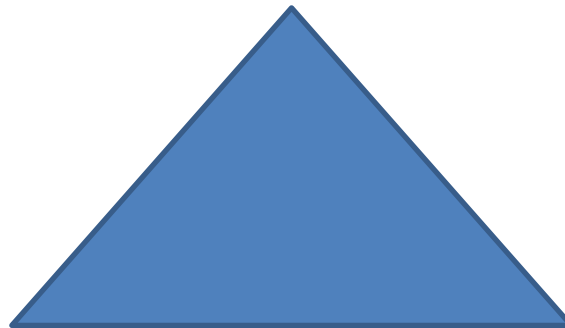
## Robust & participatory



# The SoL ML-MC "supersetting"

- doing more things coordinated in more places

<http://www.tv2bornholm.dk/programmer/bare-lidt-sundere.aspx?videoID=32365&vidLoc=NewDB>

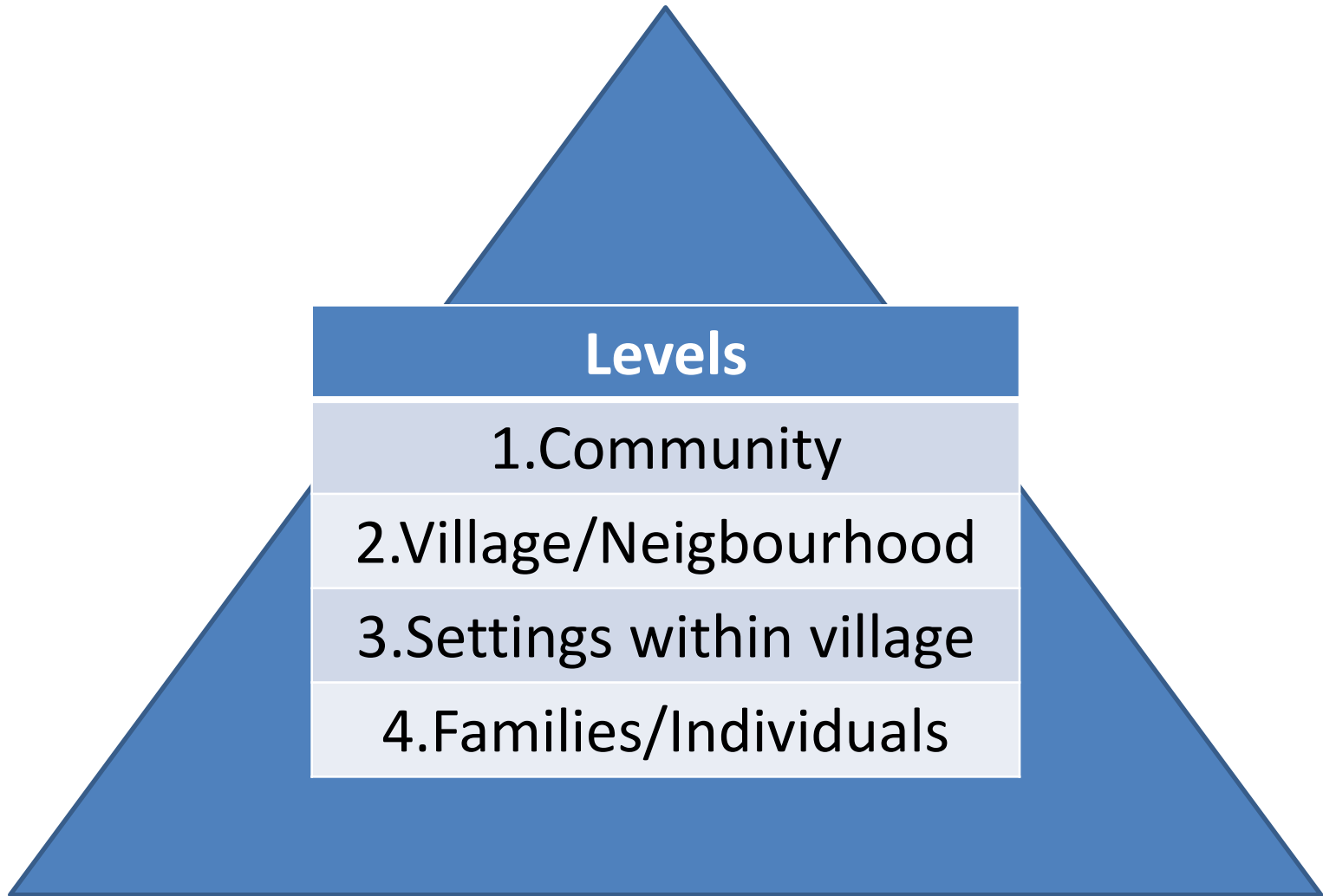


Bloch, P; Toft, U; Reinbach, HC; Clausen, LT; Mikkelsen, BE; Poulsen, K & Jensen, BB (2014): Revitalizing the setting approach – Supersettings for sustainable impact in community health promotion, Published in Int’l Journal of Behavioral Nutrition and Physical Activity (sept 15)





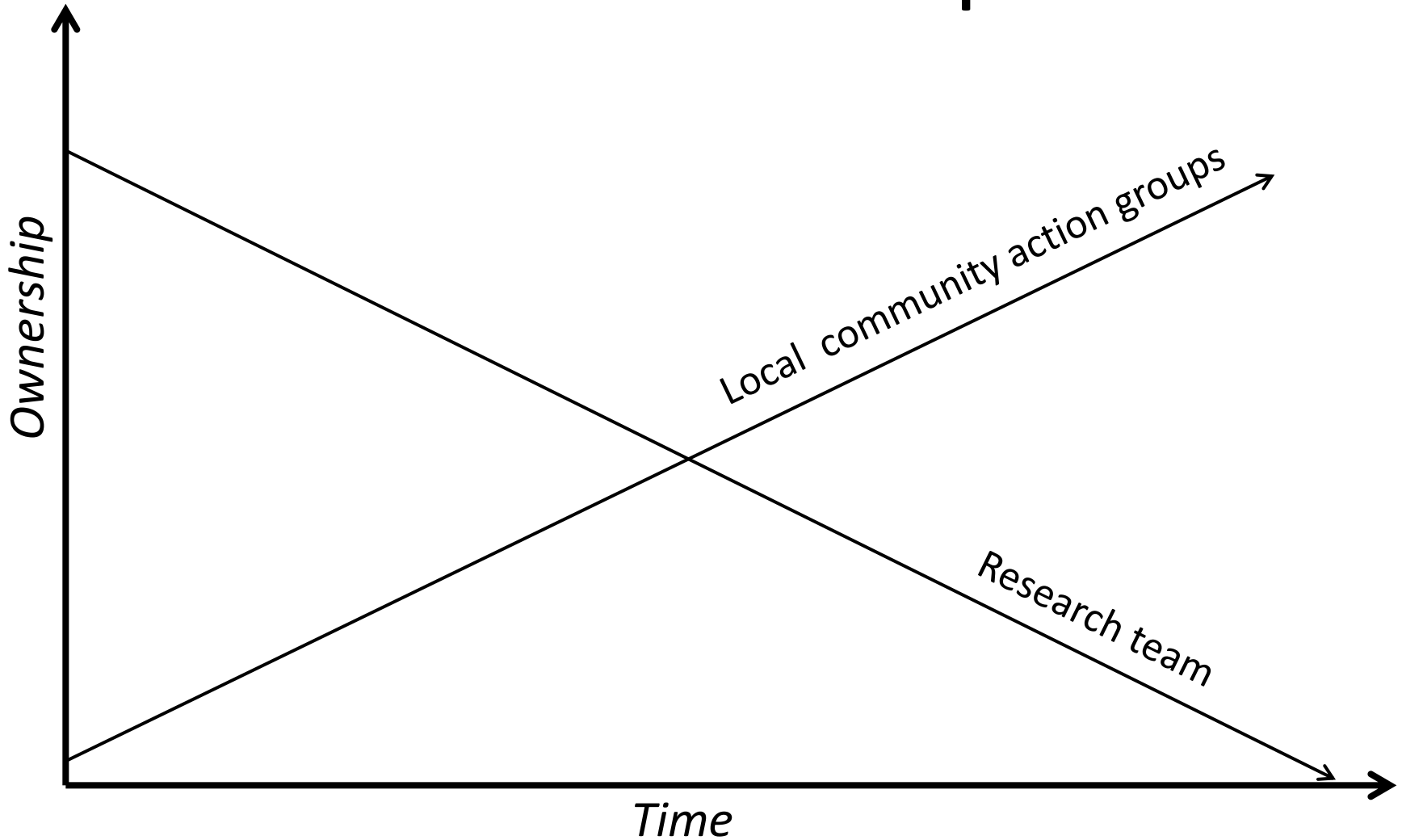
# Multi level



# Intervention sites & levels

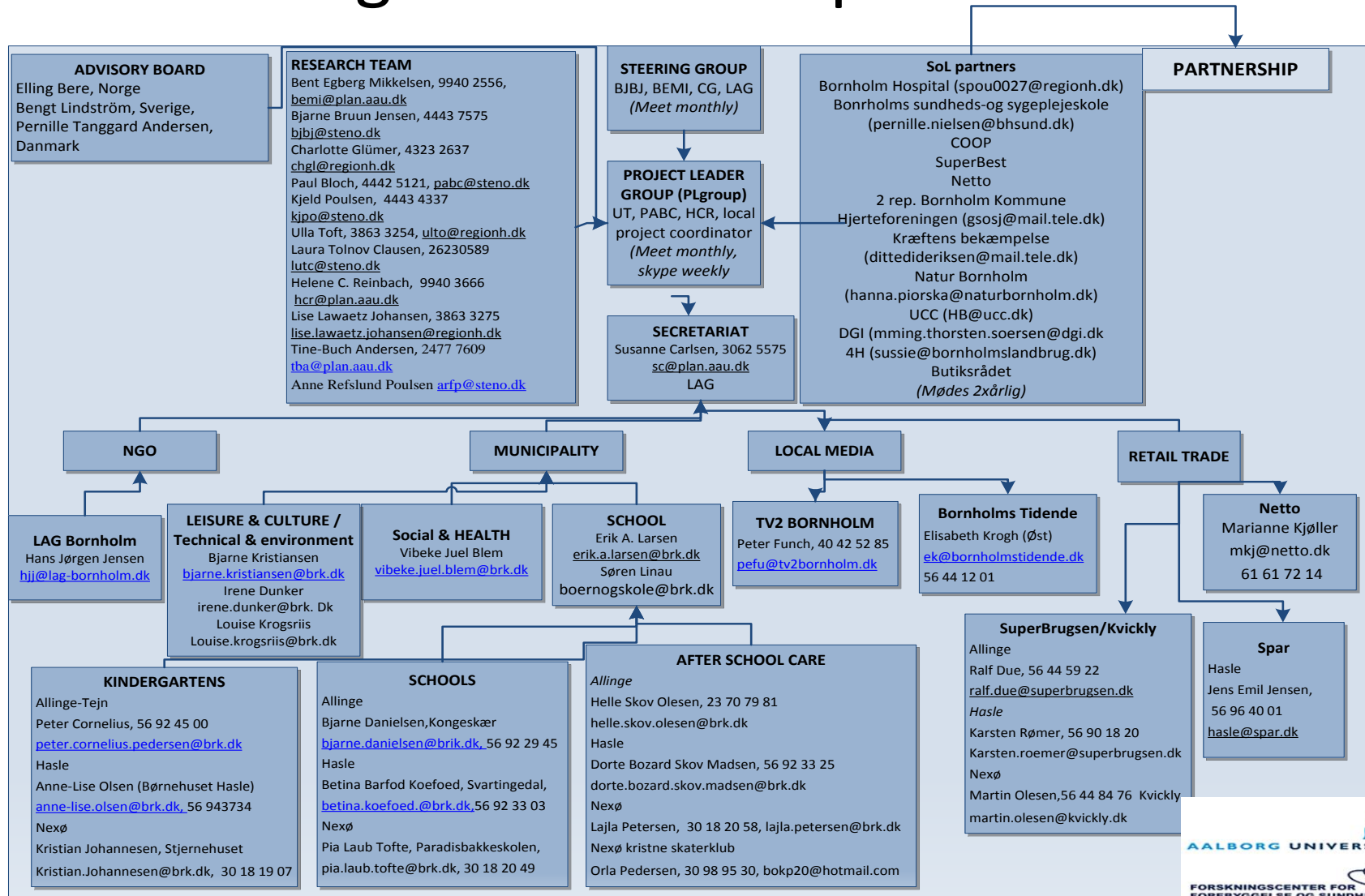
Setting Level	Public institutions		Private sector	Media				Civil sector	
	School	Kindergarten	supermarket	TV network	Newspaper	Radio	Social media	NGO's	Community groups
Region									
Community				X	*	*	X	-	
Village	X	X	X	X	*	*	X	-	-
Family	X	X	X	X	*	*	X		
Individual	X	X	X	X	*	*	X		

# Transitional governance action research in practice



# Stakeholder complexity

## Diagram of municipal actors



# Participatory design

## Professional Kick Off 7.3 2012



# Participatory design

07-09-2012



SOL Citizen kick off meeting



# Participatory design

## Peoples Meeting



# Environmental design

Ekstra  
Bladet .dk  
Deadline hvert femte minut

Rikke Jung Rasmussen - 13:53 - 06. sep. 2012



(Foto: Colourbox)

Frugt og grønt bliver billigere - men kun på Bornholm



SOL-projektet blev søsat ved en skovtur på Christianshøj.

Foto: Mette Brochorst © DR Bornholm

Skrevet af: [Casper Henriques](#)

## Grønt-salg tre gange så stort

08. nov. 2012 06.04 Nyheder

Frugt og grønt har i udvalgte butikker i Hasle, Allinge og Nexø stået lige for næsen af kunderne i cirka to måneder, som en del af sundhedsprojektet SOL, Sundhed og Lokalsamfund.

Og det har fået kunderne til at købe tre gange mere broccoli og gulerødder, fortæller Lars Kure, der er varehuschef i Kvickly i Nexø.

Frugten og grønten er nemlig blevet mere tydelig for at få børnefamilier og os andre til at leve og spise sundere.

- Kunderne køber stadig mere frugt og grønt, selvom at omtalen af SOL er gået ned i medierne. Vi



Sund mad

## Butikskæde er parat til at gemme det usunde væk

Torsdag 6. september 2012 kl. 13:45 af: Gitte Nielsen, Berlingske Nyhedsbureau

**Netto-direktør kan sagtens forestille sig, at et bornholmerforsøg med at indrette butikker mere sundt kan udvides til hele landet.**

Folkesundhed er et vigtigt emne i tiden og noget, som optager både politikere og almindelige danskere. Derfor er direktøren for butikskæden Netto, Claus Juel-Jensen, heller ikke i tvivl, om at et forsøg med såkaldt nudging på Bornholm kan blive lærerigt for butikskæden.

I alt seks supermarkeder på Bornholm er med i et nyt forsøg, hvor forbrugere skal have et »nudge«, et skub, i den rigtige retning, når de køber ind. Det skal butikkerne hjælpe dem med ved at give slik, chips og andre usunde varer en mindre fremtrædende plads. Derimod skal sunde varer som frugt og grønt placeres, så de frister kunderne mere.

- Vi sagde ja til at være med i forsøget, fordi det er spændende, og fordi vi som købmænd måske også kan lære noget og blive klogere på tidsånden, hvor folkesundhed er noget, som optager mange, siger Claus Juel-Jensen.



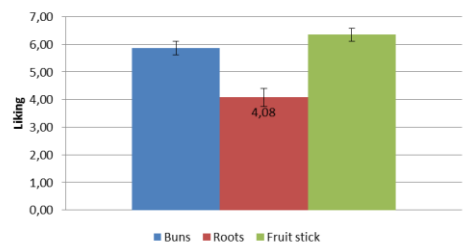


# Environmental design

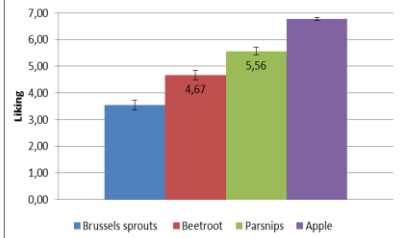
## Taste education at Paradisbakken School



Liking of self-prepared foods



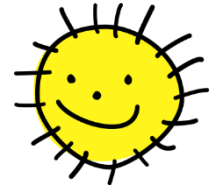
Baseline Liking of 4 winter vegetables/fruits





# Methods

## Data collection



- 70 x 2 x Telephone interviews (2012 og 2013)
- 3 In depth Interview mediepartners (TV2 Bornholm, DR, Bornholms Tidende)
- 24 Ipad-interviews children from Allinge skole
  
- 70 x Telephone interview (march 2014)
- In depth interviews with professionals and families(or fokusgroup)
- Mass media campaign (TV2, radio, newspaper) and facebook
- Ipad-interview children from Allinge skole



# Methods evaluation

Quantitative outcome measures

- **Questionnaire**
- 220 families on Bornholm/Odsherred + 1500 random selected Bornholm/Odsherred
  - Dietary intake, sedentary behaviour, social capital
- **Anthropometric measures**
- Children
  - Body Mass Index (BMI), Skin fold,
- **Biomarkers**
  - Urine samples (biomarkers for fruit & veg.)
- **Supermarket Sales**
  - Sales of healthy & unhealthy food products (Fruit, veg. & wholegrain: 25/15 % of total sales)



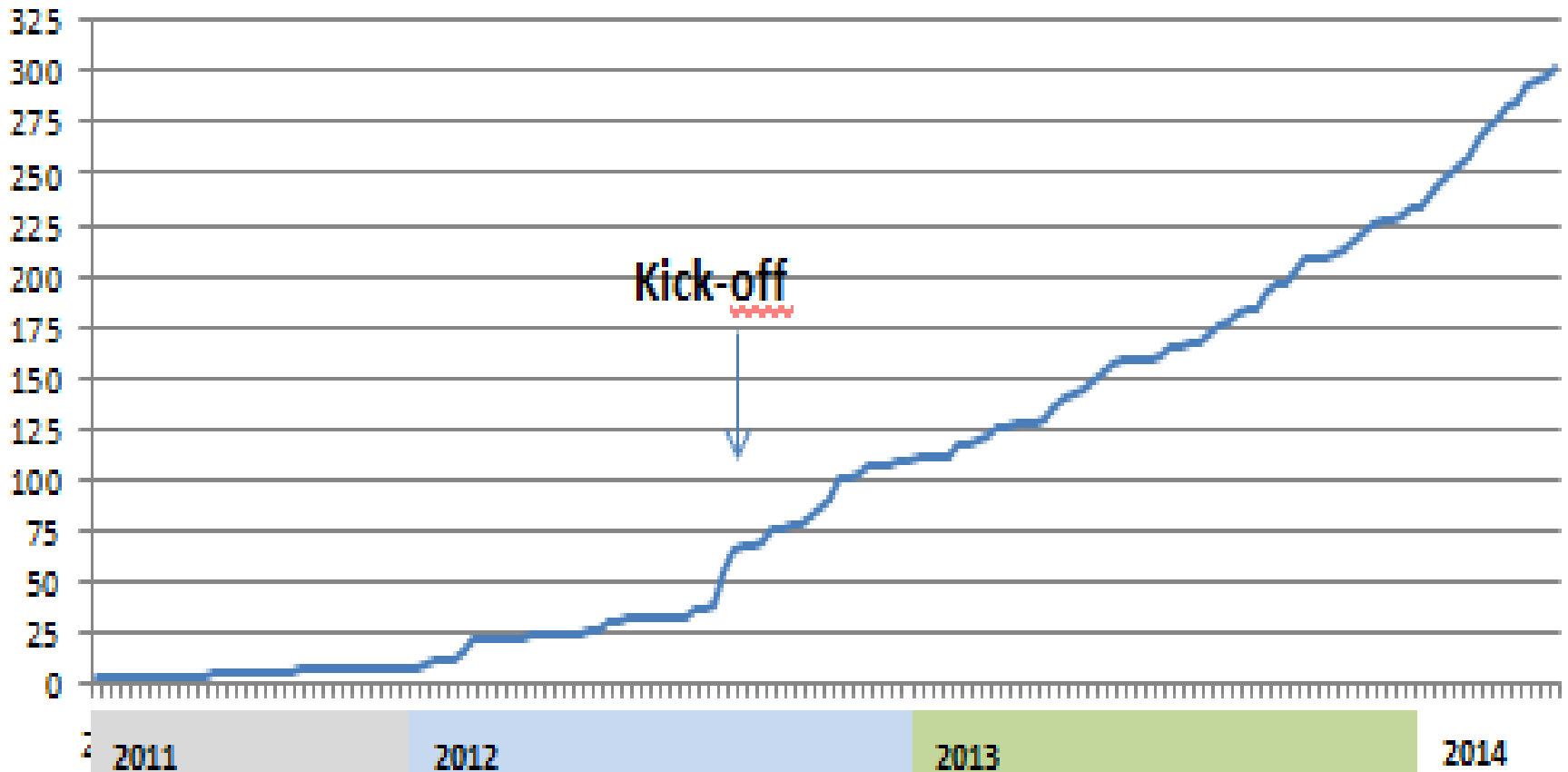
# Results: media coverage

## proxy for program awareness

Number of media-events

### Press

Kick-off



# Results: program awareness

Citizens assisted knowledge (prompted recall)

- High impact intervention sites increased from 19-36% → 62-85%
- Compared to 17-40% in the background population on the island.

**Results: Its much more difficult to change behavior than environment\***  
from semi-structured interview

*“I would never go somewhere else to buy it. The problem is when it’s right there in front of my nose for a long time then I can’t help it”*

Woman in thirties, 2 children

Lise Lawaetz Winkler<sup>a,\*</sup>, Ulla Toft<sup>a</sup>, Charlotte Glümer<sup>a</sup>, Bent Egberg Mikkelsen<sup>b</sup>, Ulla Christensen<sup>c</sup>

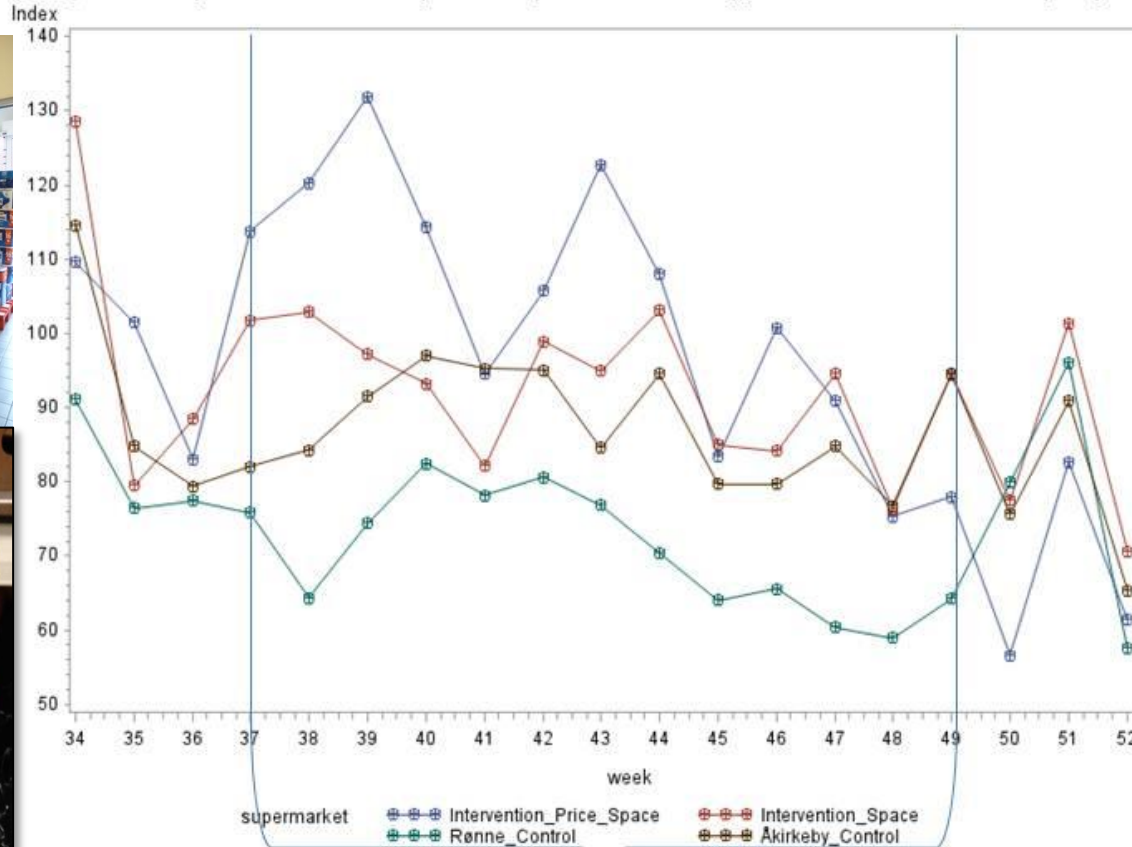
**‘I choose what I feel like’: Using practice theories to analyze food shopping routines and perceptions of nudging in supermarkets**

\* Wansink, B: Slim by design

# Results: weekly sales for F&V

## Quarterly removal of VAT (20%) on F&V

**Figure 1:** Weekly index numbers\* for sales of fresh vegetables in the "price+space intervention" (blue line), "space only intervention" (red line) and control (green and brown line) supermarkets



20% Price reduction

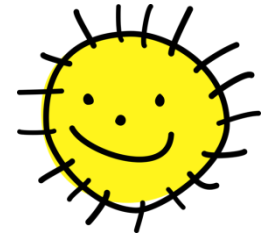
\*Weekly index numbers are sold weight of fresh vegetables in 2012 compared to the same weeks in 2011





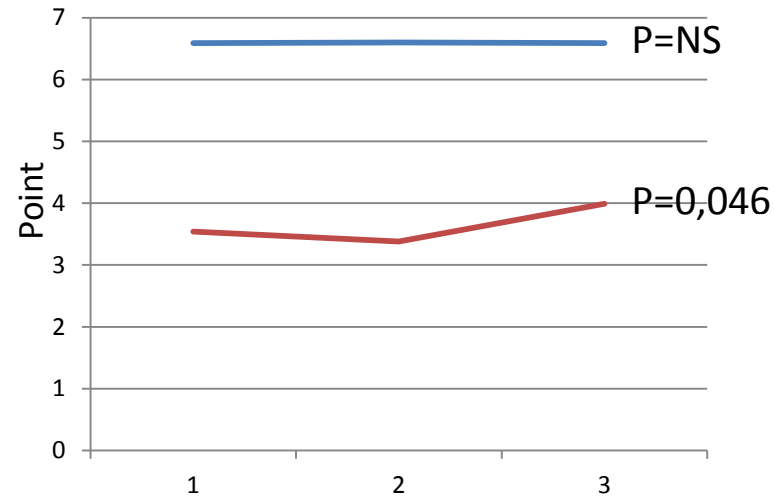
# Results

## FV liking & intake

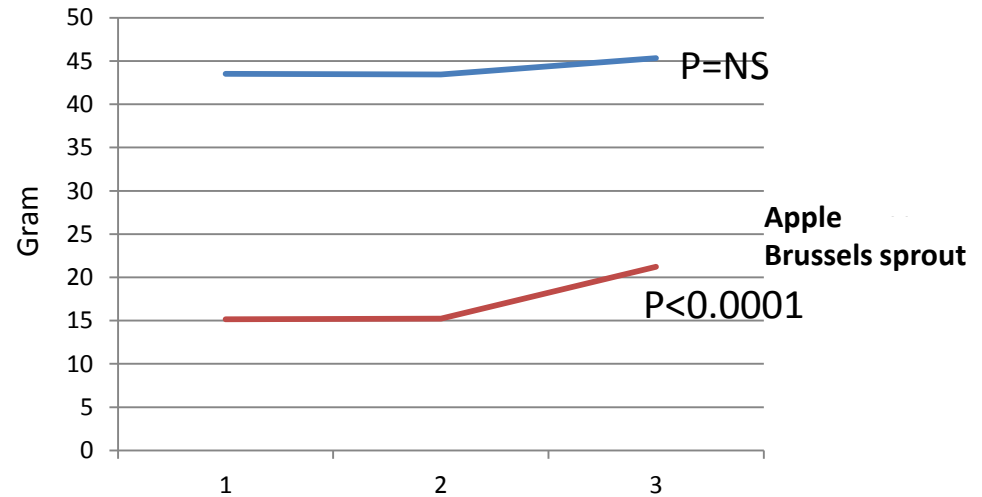


Apple  
Brussels sprout

### Liking



### Intake




Toft, U. Evaluation of SoL program; First results,  
Danihs Public Health Days Conference, Nyborg  
Beach, September 29, 2015

# Conclusion:

roadmap for successful implementation

**Building collaboration and partnership  
through action research & co-creation**



**Creating synergy and intensity by using more  
components at more levels**



**Creating sustainability of intervention & long  
term engagement.**

# Conclusion

- Use the recent interest in the local
- Assess preparedness carefully
- Combine a strong research design with a participatory design
- Align with public policies
- Dont underestimate cost of "action"
- Engage with and use media
- Be prepared to negotiate