

Child health in Sweden - 3 projects to improve equity and give all children the best start in life

Welcome 😊

Our session today

Introduction:

Best possible start in life – learning from early, coordinated and family centered efforts

Why is this topic important to you?

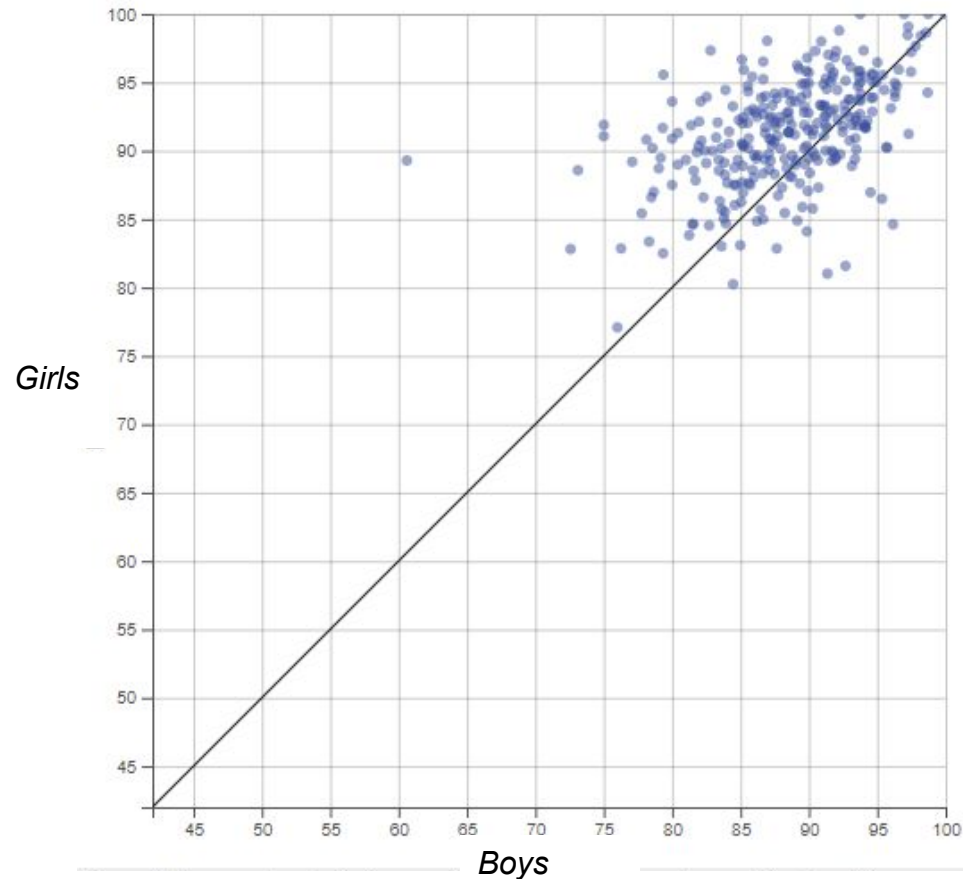
3 examples from Sweden:

- Prescribed book reading – social investments enables development of new methods and cooperation (Region Gävleborg)
- Equality and quality – meeting the needs of children and professionals throughout society (Region Kronoberg)
- “Ending Childhood obesity” – changing society towards prevention” – Swelife’s strategic project for system transformation (Uppsala University and Innovation Skåne)

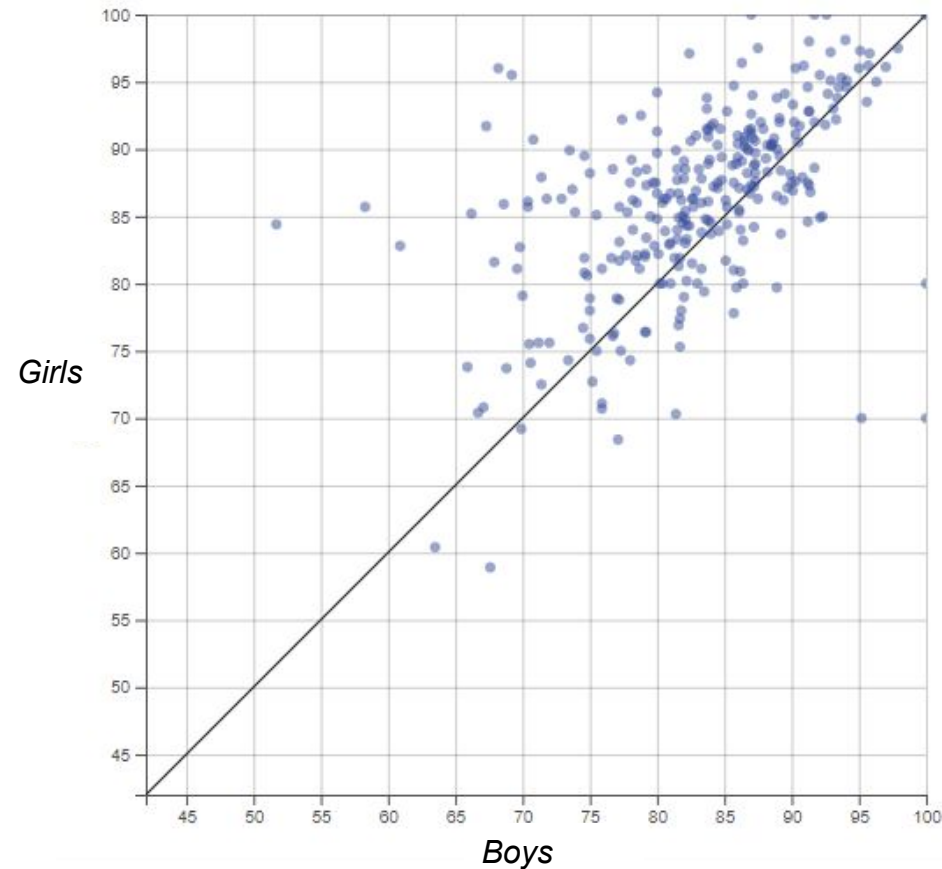
What learnings do you bring to create power to change?

Students passing basic school and can move to next level of education - 290 municipalities (%)

2006



2020



The prevalence of overweight and obesity among children is high and increases with age



Folkhälsomyndigheten
PUBLIC HEALTH AGENCY OF SWEDEN



18% of children aged 6–9 are overweight or obese.

Data on length and weight from eight municipalities for the school year 2015/2016 (WHO COSI).
IsoBMI IOTF (International Obesity Task Force).



The prevalence of overweight and obesity in 9 year olds **is more than twice** that of 6 year olds.

Data on length and weight from eight municipalities for the school year 2015/2016 (WHO COSI).
IsoBMI IOTF (International Obesity Task Force).

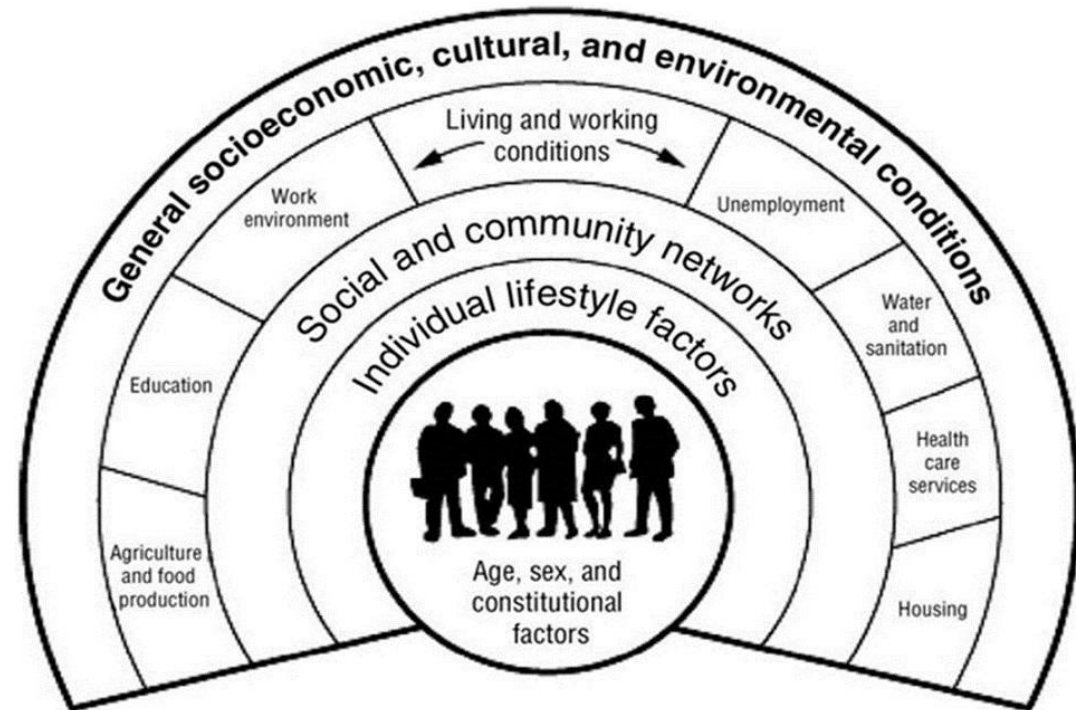
"Obesity among 4-year olds are at least 7 times more common in Alby, Märsta and Storvreten, compared to parts of the inner City of Stockholm"

- Children's unequal conditions for health in Stockholm County, SLL 2017

Gender gap: 20,1% girls vs.16,9% boys

Creating power to change together

- Whole system approach from a society and family centered perspective
- Data driven health promotion and prevention
- Coordinated collaboration
- Sustainability from tests to dissamination



Source: Dahlgren and Whitehead (1991)

Share with your neighbours...

Who are you and why is the topic important to you?

Prescribed book reading

Social investments enables development of new methods and cooperation

International Forum, 22 June 2022

Karin Myrberg ^{1, 2} & Emma Mårtensson ¹

1. Region Gävleborg

2. Linköping University



Social investments

Delimited initiatives that, in relation to ordinary working methods, are expected to provide ***better outcomes*** for the target group - and reduce ***societal costs***



Social investments in Region Gävleborg

A *tool* to:

- *encourage* and *develop* prevention and early intervention measures
- *stimulate* cooperation between actors, functions and sectors



Social investment in Region Gävleborg

A ***tool*** of funding, but most of all a
tool of structure and support:

- a systematic way of creating, testing
and evaluating interventions
(investments)



Need for change



- Caregiver-child book reading has numerous positive effects on child development (ex. Dickinson et al., 2010; Sim, & Berthelsen, 2014).
- Particularly important for children with speech language and communication needs (SLCN) (eg. Mol, et al.; 2008; Lavelli et al., 2019; Skibbe et al., 2008)
- Time spent on caregiver-child book reading steadily decreases (ex. Legi Lexi, 2019; National Reading Panel, 2020; Statens medieråd, 2020)
- The speech and and language pathologists (SLPs) at Gävle County Hospital recognized a need for change

Aims

To develop, test and evaluate a book reading intervention method in order to generate new and generalizable knowledge

- ✓ To investigate reading, reading habits and screen time in a large clinical sample of children with SLCN and their caregivers, before- and after receiving "Prescribed book reading"
- ✓ To capture the caregivers' and SLP's experiences of the novel work procedure

Participants and procedure

- Participants: 135 families
(mean age: 3.6, 47 bilingual, 92 boys, 43 girls)
- Survey-based interviews at their ordinary appointments – pre and post intervention
- Descriptive statistics, focus-group interview, in-depth interviews, and thematic analyses of free-text comments



Intervention: Prescribed book reading

- Introduction to “joint book reading”: an interactive and responsive style of reading (Trivette & Dunst, 2007)
- General and individualized advice on reading, screen time, books and the library
- Thorough advice of at least 10 minutes daily “joint book reading”
- Book gift



Results pre-intervention (N=135)

- Large variations of reading and reading habits
 - 33 % reported daily reading
 - 43 % read less than 1 time/week
 - Mean time spent on reading 11.4 minutes (SD 9,5 min)
- 60 % of the caregivers did never pursue own reading (books/audiobooks)
- 50 % of the caregivers had not visited the library in adulthood
- >90 % of the children had daily screen time
 - Daily mean of 124 minutes (SD 81 min)
 - 20 % of the children had a daily screen time of >240 minutes (4 hours)

"He runs away and rips the book apart"

"We cannot afford to get books from the library"

"We have tried different books that 5-year olds should like, but she doesn't seem interested"

"We don't read to him, because his mother is illiterate"

"We try to get the time to read every night"

Results post-intervention (N=107)

($P < 0.05$, effect size 0.5-0.8)

- Significant increase of book reading
 - 53 % reported daily reading
 - 13 % reported reading ≤ 1 per week
- Significant increase of reading time
 - mean time spent on reading was 17 minutes (SD 9)
- Significant increase of childrens' interest
- 50 % had visited the library
- No differences of screen time frequency
 - daily screen time decreased significantly to 88 minutes (SD 70)
- Caregivers reported improvement of childrens' language
- "Joint book reading" was reported as the main benefit



"We have hidden the Ipad, it is only allowed on weekends"

"She is more interested when we talk about- and point at the pictures"

"We have noticed that Ahmed is more interested now when we choose books for smaller children"

"We have been to the library four times already, we found several books in arabic"

"It's easier to make a daily routine when being told by the SLP"

Conclusions

- Families of children with SLCN read less than average
- Prescribed book reading can change reading and reading habits
- Feasible, easy-accessible at a low cost
- Potential to improve language abilities and reduce a future need of special support
- Prescribed book reading has been implemented in the whole region and have replaced other home-based interventions
- Parts of prescribed book reading are used by other actors

Take home meessages

- Likely that all early childhood professionals with rather simple means can encourage caregivers to employ interactive book reading and reduce screen time
- Certain families might need more thorough advice and support
- A holistic approach to working with children with low levels of book reading is likely to be beneficial
- The need to *invest* in health
- The need to focus on outcomes and collaboration – for the benefit of all



Thank you for your attention!

[Prescribed joint book reading, Region Gävleborg \(regiongavleborg.se\)](https://regiongavleborg.se)

karin.myrberg@regiongavleborg.se (Prescribed book reading, evaluation and methods)

emma.martensson@regiongavleborg.se (Social investments)

Prescribed book reading has been enabled and funded by the participating actors Logopedenheten och Kultur Gävleborg, Region Gävleborg, and Region Gävleborg social investments funding.

LÄS PÅ RECEPT

Metodbeskrivning

BAKGRUND

Läs på recept är ett arbetssätt som utvecklats av logoped och biblioteksutvecklare i Region Gävleborg. Metoden är noggrant utvärderad av forskare vid Linköpings universitet. Det handlar om att handleda vårdnadshavare i en särskilt språkutvecklande läsmetod, "Gemensam bokläsning". Handledningen kan varieras utifrån familjens tidigare läserfarenhet. Vidare ingår riktade råd om läsvanor, skärmar, böcker och bibliotek.

Utvärderingen visar att en individanpassad genomgång av metoden "Gemensam bokläsning" och andra råd kopplade till läsning, kan leda till signifikanta skillnader av vårdnadshavares läsning för sina små barn.

Arbetssättet erbjuds nu de flesta barn i förskoleåldern som remitteras till logoped för försenad tal och språkutveckling.

Vid införande av "Läs på recept" som en interventionsmetod i en logopedisk verksamhet rekommenderas att inkludera samtliga delar. Detta eftersom det inte är klart om det är de individanpassade råden, metoden "Gemensam bokläsning" eller rekommendationen om daglig läsning som gett störst effekt på vårdnadshavarnas läsning.

Följ stegen nedan:



THE MODEL *KRONOBARNSMODELLEN*

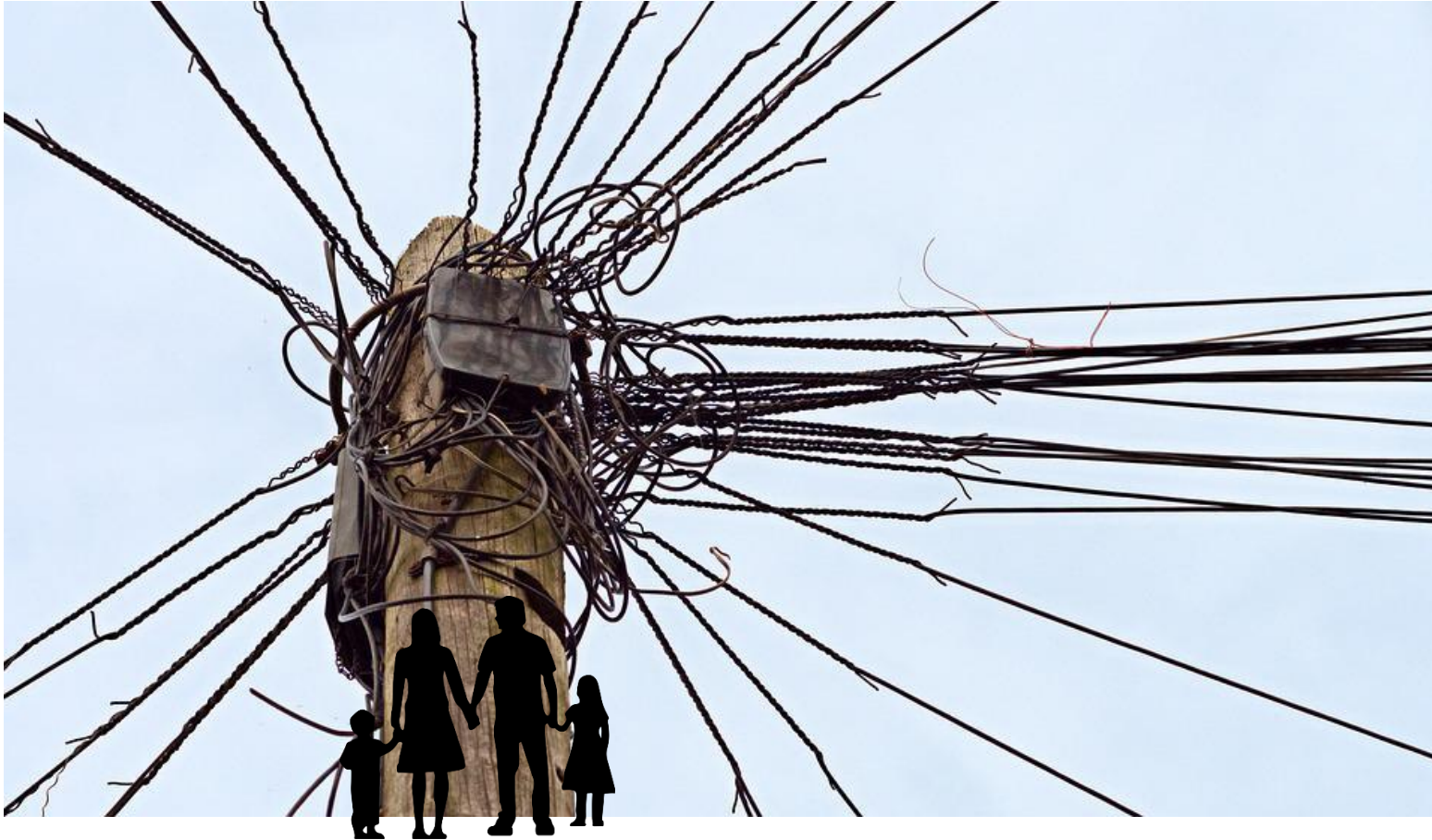


'Together we aim to create a safe and secure childhood for EVERY child through promotive, early and cooperative actions'

Erika Lagergren, Process Leader, Region Kronoberg

WHY?

Limit the number of contacts a **child** has to repeat their story to
Help **parents/legal guardians** to limit the number of contacts they have to coordinate
Give **professionals** a clear view of what other professionals are involved



HOW?

Working together at every level, using the word 'and' instead of 'either or'

Top down AND bottom up

Companion researchers from Linnaeus University from day one, now evolved into National Centre in at Linnaeus University in Vaxjo.

In association with;



Alvesta
kommun



Lessebo kommun



LJUNGBY
KOMMUN



MARKARYDS
KOMMUN



Tingsryds
kommun



Uppvidinge
KOMMUN



Växjö
kommun



Älmhults
kommun

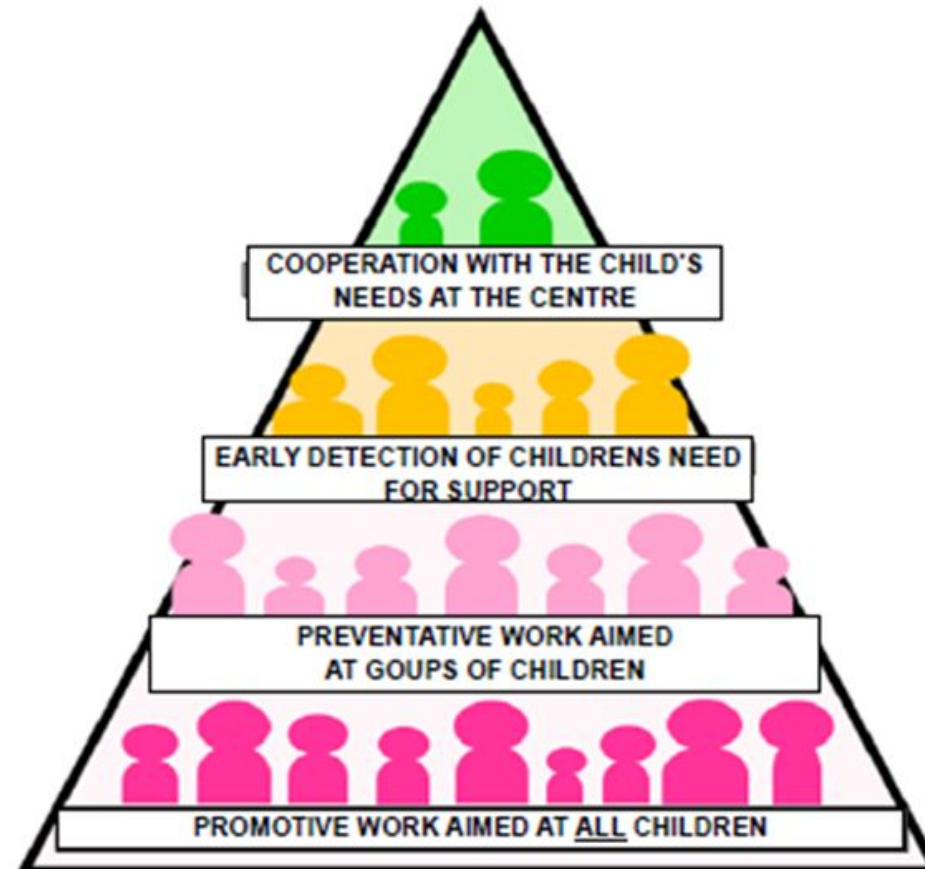


Polisen

Linneuniversitetet

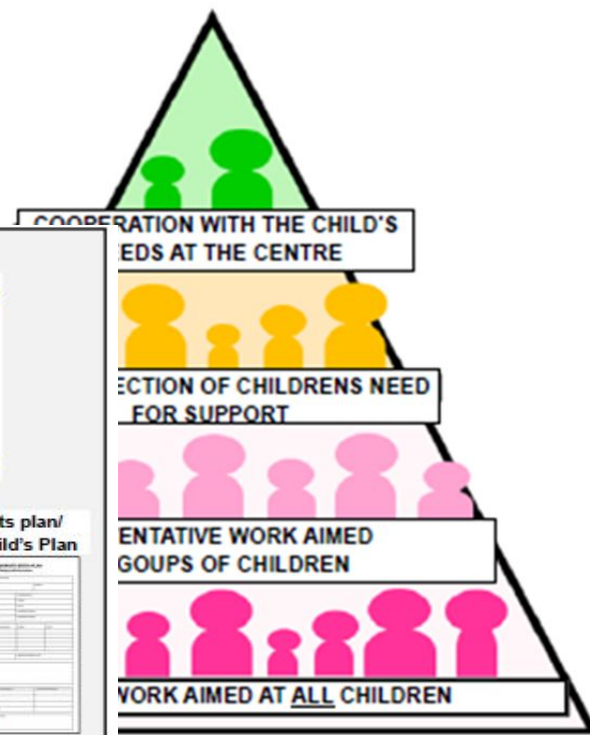
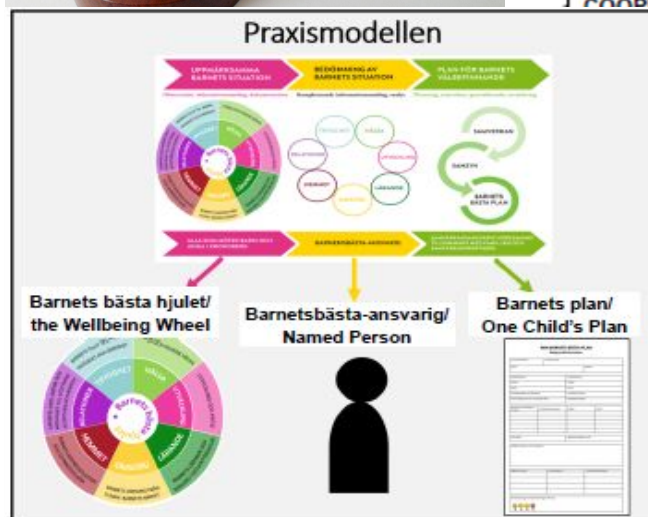


THE MODEL - *KRONOBARNSMODELLEN*



A holistic model – common structures, guidelines, tools AND a focus on trust, cooperation and building on what already is in place and works

Ensuring sustainability working with larger common AND more local perspectives



Working together – with the child's needs at the centre

The child, and the child's parents/legal guardians, are viewed as experts on the child's life and prerequisites and are therefore key participants in any cooperation trying to help or support the child



THE MODEL *KRONOBARNSMODELLEN*

To access further information:

www.regionkronoberg.se/barnensbastagaller



Ending Childhood obesity – changing society towards prevention obesity

SWELIFE'S STRATEGIC PROJECT FOR SYSTEM TRANSFORMATION

Peter Bergsten, national coordinator
Uppsala University, Region Uppsala

Maria Bjerstam
Workpacket project leader, Innovation Skåne



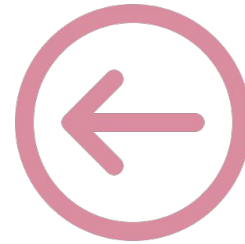
This is how it started



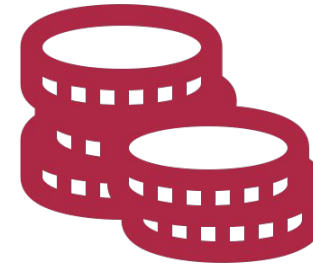
Overweight and obesity in Sweden today:
- 11% 4-year-olds
- >50% adults
Costly and deadly!



Swedish health care system:
non-sustainable
Need: national rally



Prevent diseases before they happen
Need: shift society towards prevention



ECHO piloting the effort
Funding: Swelife, Sweden's national innovation programme for better health and life science

ECHO Mobilization (2019-2020)

Public sector

National agencies: National Board of Health and Welfare, Public Health Agency of Sweden, Swedish Food Agency, Swedish Innovation Agency

Universities and research institutes: Gothenburg, Karolinska, Lund, Research Institutes of Sweden, Stockholm, Umeå, Uppsala

Regions and municipalities

Non-governmental organizations

Patient organization: HOBS

Lobby organizations: Generation Pep

Private sector

The Swedish Food Federation (Food industry)

ICA (retailer)

SAS Institute (Software developer)

Novo Nordisk (Pharma)

Politicians

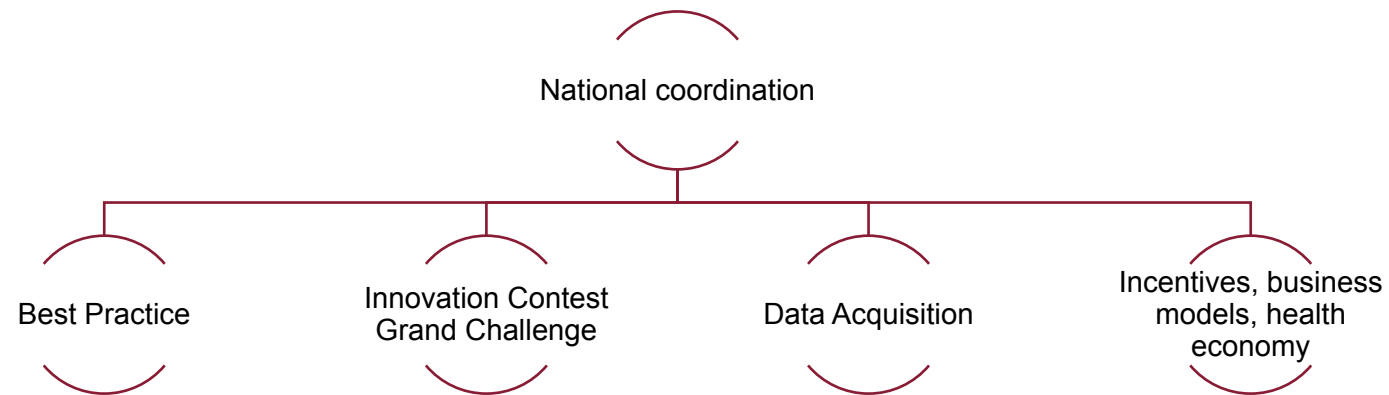


ECHO Initiation (2020-2021)

Quadruple Helix

- Universities and institutes
- Public sector
- NGOs
- Business

Project Structure

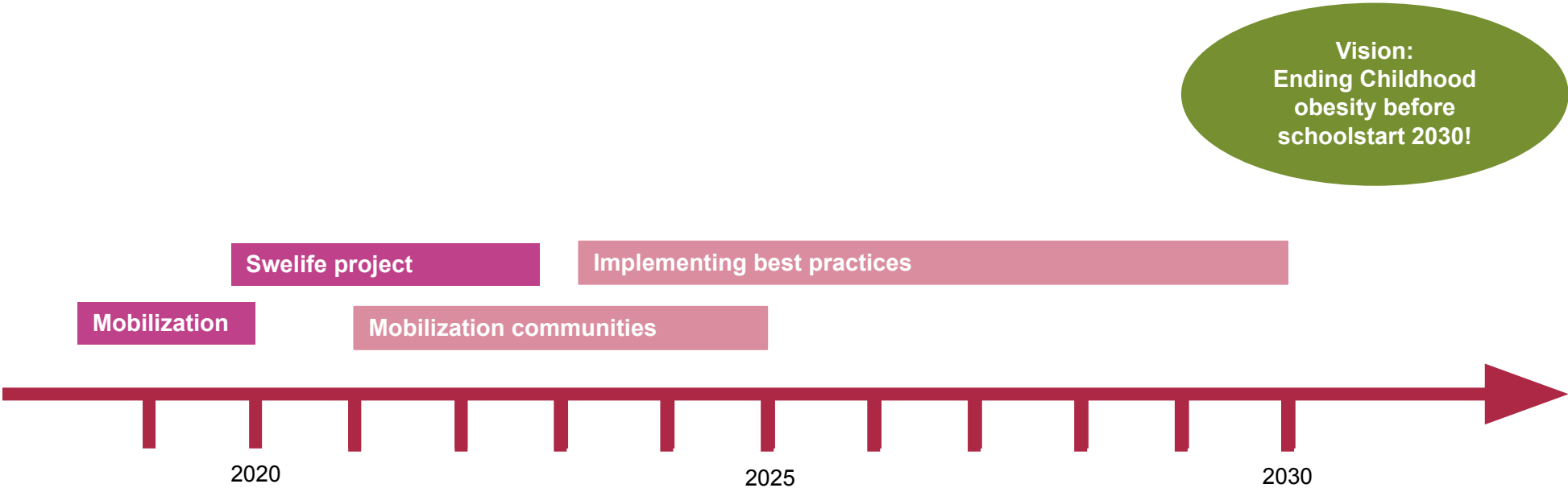


Activities (cont.):

- **What is best practice?**
 - Literature search
 - Survey and interviews with local Swedish initiatives
- **What new digital solutions do we need?**
 - Hackathon
 - Contest for developing novel solutions for ending childhood obesity
- **What data do we need?**
- **What incentive and business models do we need?**
- **What health economy calculations do we need?**



Timeline



Activities, reports



Incitament, ersättnings-, affärsmodeller och hälsoekonomiska modeller för preventiva interventioner mot barnfetma

Incitament i arbetet med att förebygga barnfetma - en fallstudie av främjande och hämmande strukturer för skapandet av goda förutsättningar för implementering

Mars 2021

Insatser på samhällsnivå för att förebygga övervikt och fetma bland barn 0–6 år

En kartläggande litteraturoversikt inom Prevention Barnfetma (SWElife). (Delrapport av huvudrapport under produktion)

November 2021

SWElife

Best Practice för interventioner riktade till individen

Deltidsrapport Prevention barnfetma

Deltagare: Lena Hansson, Carl-Erik Flodmark, Sven-Arne Silverdal, Maja Engsnér

2021

SWElife

Prevention Barnfetma - Best Practice

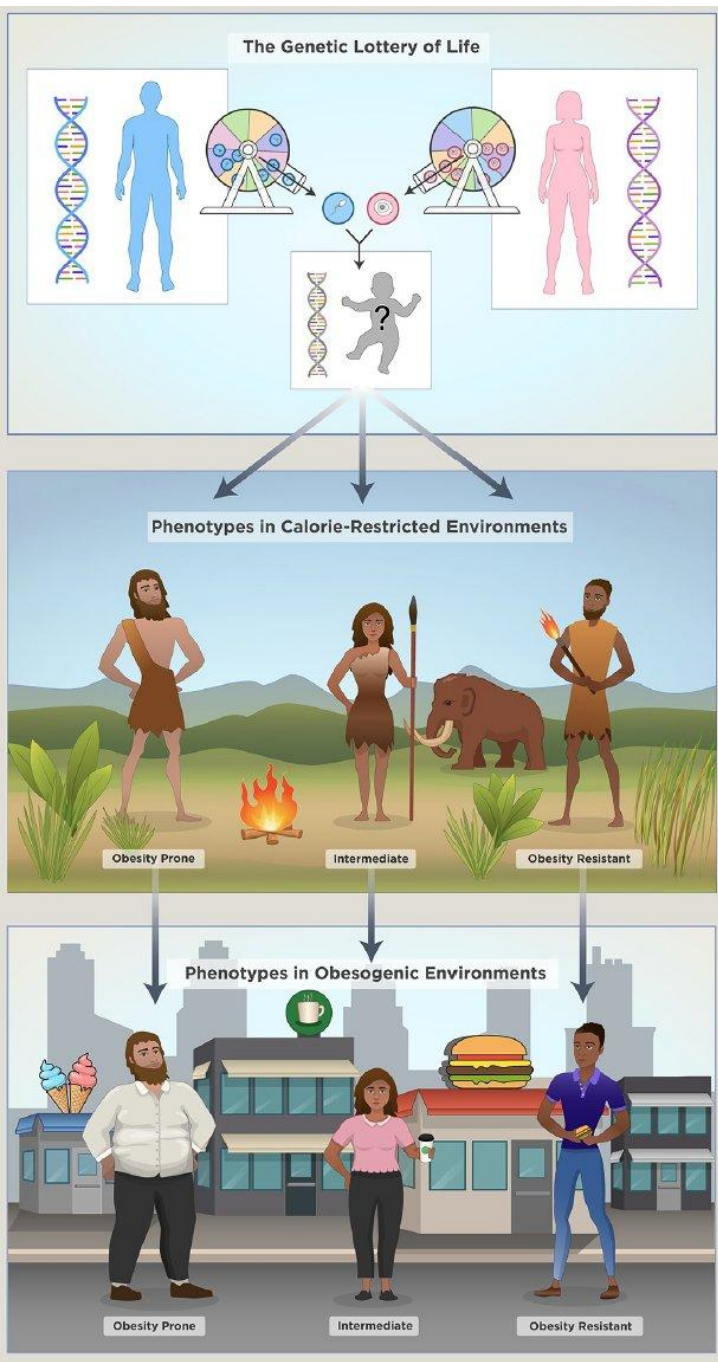
Sammanställning från enkätgruppen

December 2021

SWElife

"To implement change we need to gather different actors, create consensus and create better conditions for implementation of what we know today works. To do this, we need the knowledge of life science researchers, behavioral scientists, individuals who are good at setting up effect measurements and health economics, as well as people who understand and can handle both structured and unstructured data with associated law."

WE HAVE CREATED AN OBESOGENIC ENVIRONMENT



Pizzeriaindex	
Simrishamns municipality	
80-tal	1
Today	12

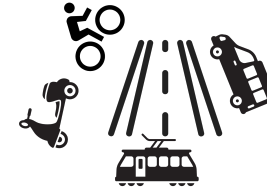




School

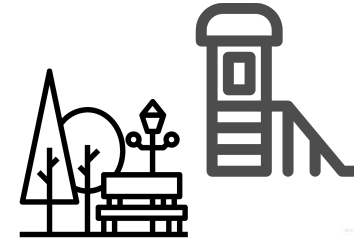


Family

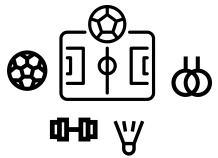


Infrastructure/
Public transport

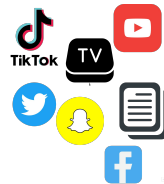
**THE SYSTEMS
CREATES THE
RESULT THAT THEY
ARE DESIGN FOR**



Recreation



Pleasure time



Media

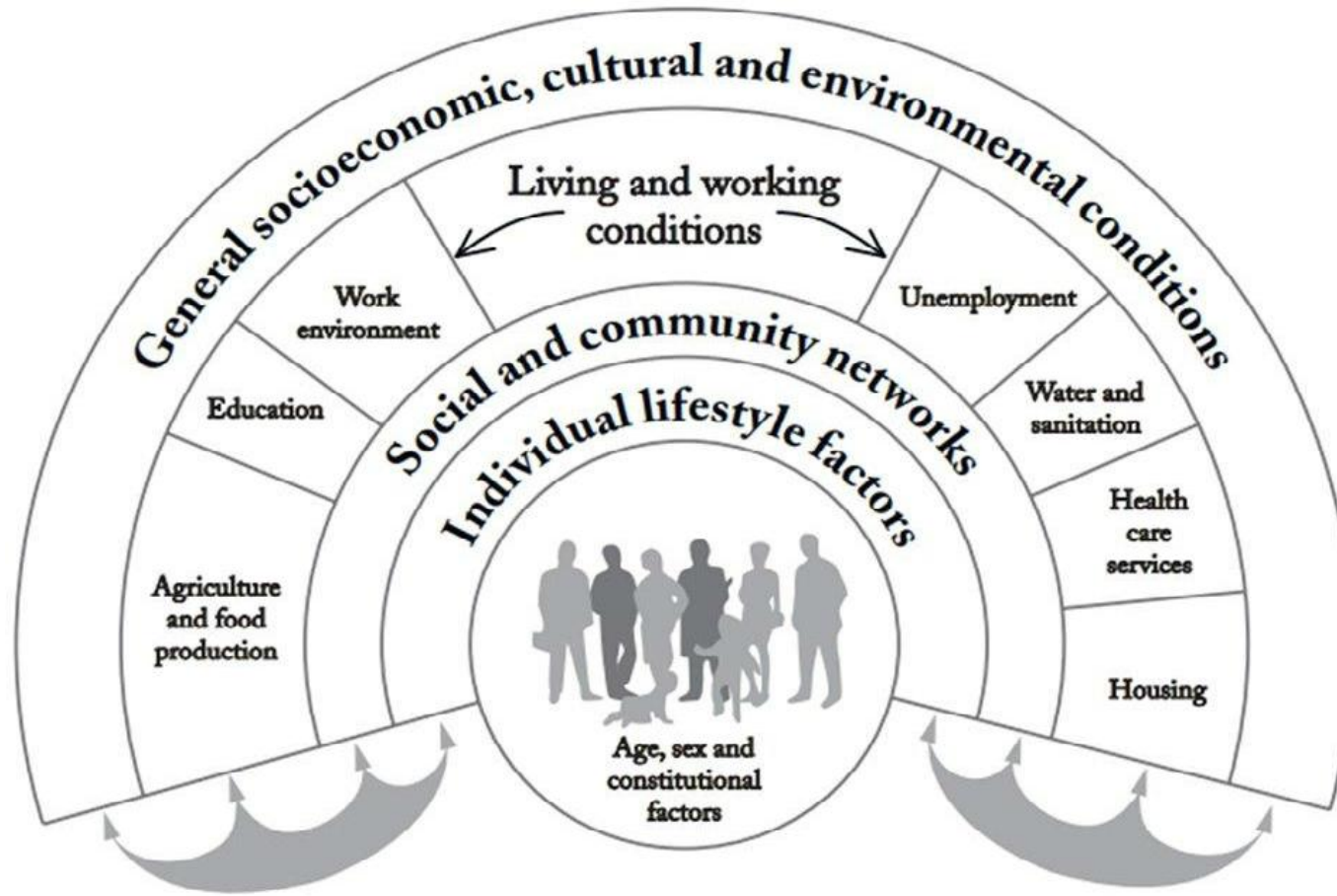


Other public
service



Goverment
Politic

Wider Determinants of Health (WDoH)

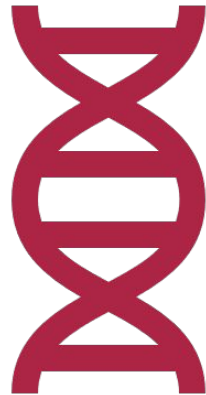


(Dahlgren and Whitehead, 1991)

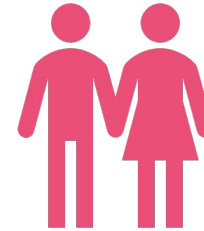
What affects health?



Life style
40%



Family history and
genetics
30%

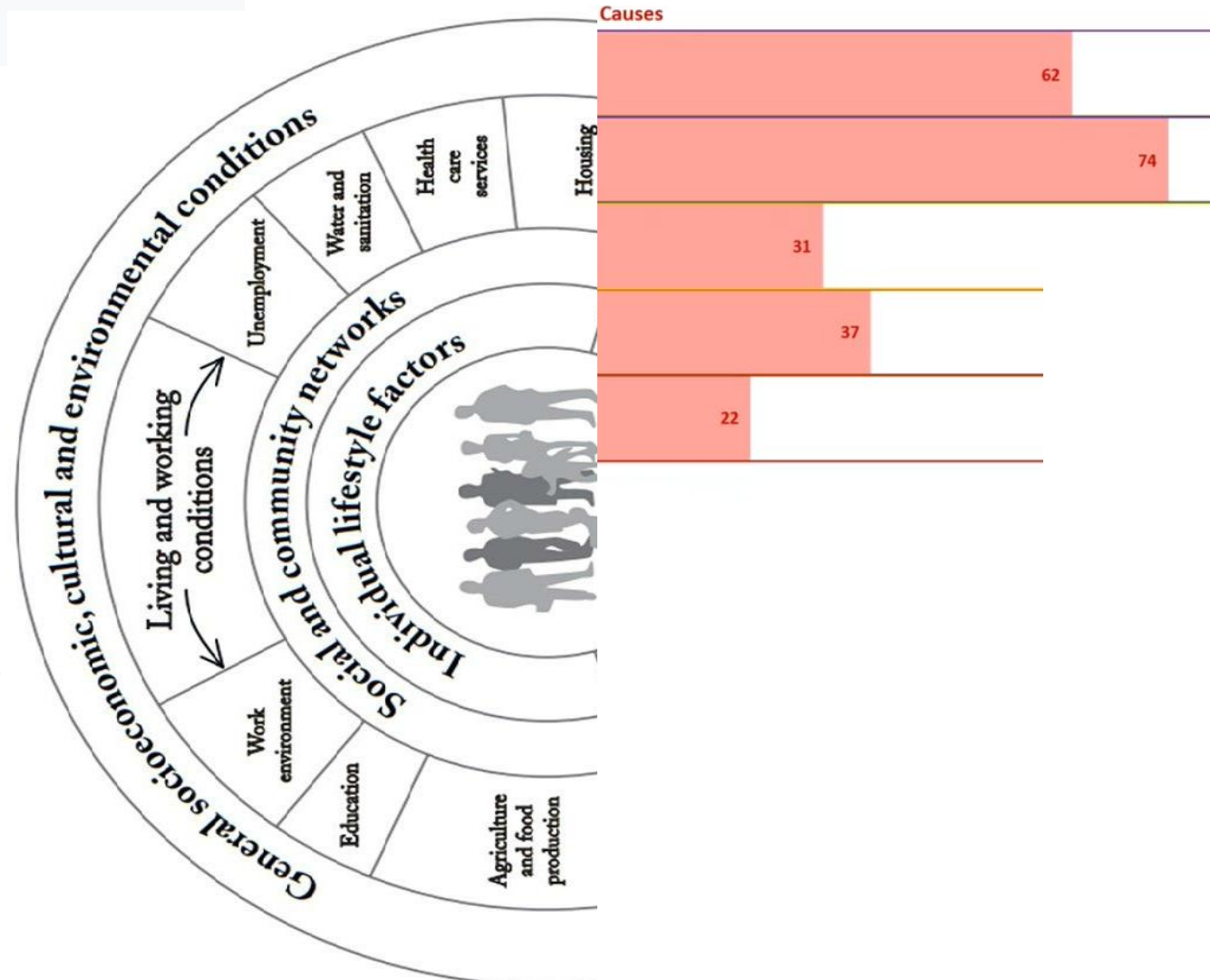


Environmental and
social factors
20%



Healthcare
10 %

How do the efforts in different studies correlate with the causes of child obesity based on the determinants of health?
(n =153)



What to do?

- Municipality and region need to work together and jointly own the issue.
- The entire organization needs to cooperate and take joint responsibility.
- The anchoring work needs to take time.
- Each municipality has its unique context and different conditions, even within the same region there are big differences.
- Do not forget business and civil society!
- Good work is already going on – use it!
- The methods are the same for several prevention initiatives
- Data should be produced at such a local level to create interest, understanding and commitment.



Activities, International work

Building the ECHO international network

- Conferences
 - ECHO Annual meetings
 - Innovation Forum (Dubai)

Targeted projects

- Brazil
 - Joint team in Grand Challenge “Digital City Twin”
 - Working on joint application to Sweden’s innovation agency Vinnova
- Horizon Europe
 - Proposal



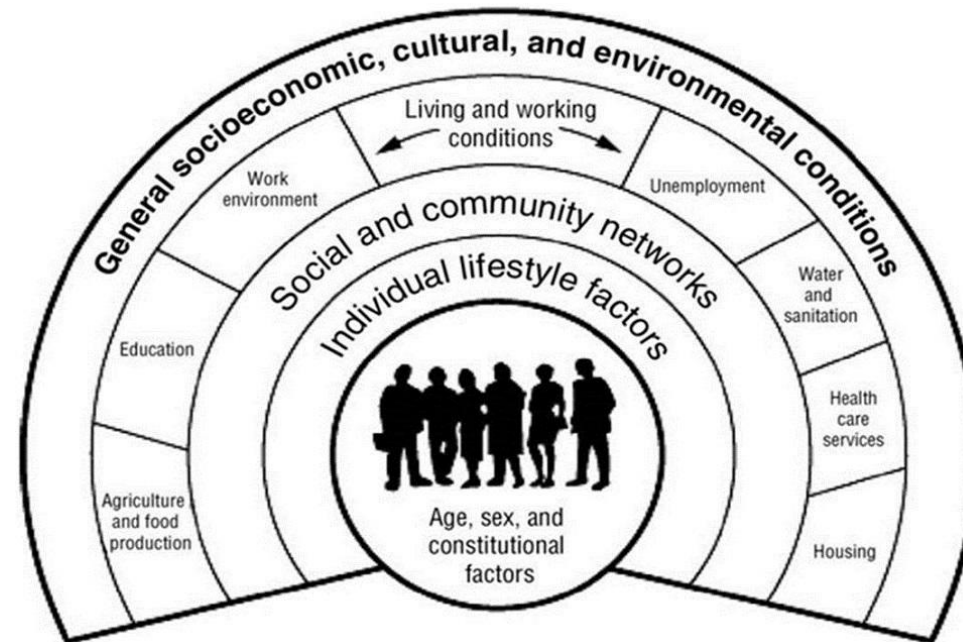
Conclusions

- **Promotion of child health and prevention of childhood obesity needs to be**
- Data-driven
 - What data
 - Individual as well as from other WDoH levels
 - Infrastructure: extract, store, organize, analyze, visualize
 - Digital City Twins
 - Legal integrity aspects
- Sustainable
- Scalable



What learnings do you bring to create power to change?

- !
- !
- !



Source: Dahlgren and Whitehead (1991)