14 October 2020 | 12.00 UTC

NBS and Green Public Spaces for Health & Resilience

Register here: bit.ly/nbsHR

Meet eminent speakers:
Marc Nieuwenhuijsen, ISGlobal Barcelona
Cecilia Vaca Jones, Bernard van Leer Foundation
Laura Petrella - UN-Habitat
Thiago Hérick de Sá - World Health Organization
Nabi Agzamov, Strelka Kb
Nathan Iyer, IYER Planning, Urban Design & Architecture
Uta Christine Dietrich, ThinkCity
Urban95, Urban Health and Urban Resilience

Cecilia Vaca Jones
Bernard van Leer Foundation
14 October 2020
A good start for all children

All babies deserve a good start.

A good start puts each individual child on the path to realizing their full potential and, collectively, sets the foundation for a healthy, creative and peaceful society.

This requires universal policies and programmes catering to all children, but going the extra mile to ensure that the most disadvantaged get extra support to help level the playing field.
A growing body of evidence links significant adversity in childhood to increased risk of a range of adult health problems, including diabetes, hypertension, stroke, obesity, and some forms of cancer. For example, having 7 or 8 serious adverse experiences in childhood translated to 3 times higher probability of having cardiovascular disease as an adult.

In Jamaica, longitudinal studies have shown stunted children who received home visits promoting caregiver-infant play and verbal interaction were 5 times more like to stay in school, achieved 0.6 years more of schooling, and were 3 times more likely to have some college-level education. They also earned 25% more income than children who did not participate in the programme.

Research by Nobel Laureate James Heckman has shown that high-quality early childhood programmes for disadvantaged children can deliver up to 13% return on investment through savings to health, welfare and special education as well as increased income. In cost-benefit terms, every $1 spent on early childhood development programmes can lead to a return of $7-10.
IF YOU COULD EXPERIENCE THE CITY FROM 95 cm — THE HEIGHT OF A 3-YEAR-OLD — WHAT WOULD YOU CHANGE?
WE CAN DESIGN HEALTHY URBAN ENVIRONMENTS

Reduce car dominance
Social interaction
Active & walkable streets
Welcoming & inclusive
Connection to nature
Access to services & play

PRENATAL
0-6 MONTHS
1-3 YEARS
3-5 YEARS
0 YEARS
5 YEARS
TO SUPPORT POSITIVE INTERACTIONS AT EVERY SCALE

- Between neurons
- Between child and caregiver
- Between children
- Between caregivers
- Between caregivers and children with their surrounding space
- Between caregivers and children and their destinations
URBAN95

Core areas

- Public Space
- Mobility
- Neighbourhood planning
- Air
- Nature

City management principles

- Data-driven decision making and inter-agency collaboration
Public Space
Quality & proximity

- Tirana, 48 new playgrounds in 48 months, and symbolic square redesign for all
- Play design innovations
- Istanbul: Link to design guidance
- Tel Aviv, solving the “sand problem”
- Libreville, temporary play streets with sand boxes
Public Space
Street design

- Copenhagen, centred on the school
- Design for:
  - Traffic calming
  - Play along the way
  - Low stress environment
  - Bicycle parking
At the neighbourhood scale, Urban95 journeys can include indirect routes and extra stops to reach services.
Combining design and behaviour

Early Years Cycling

➢ Well-designed bicycle infrastructure needs to be complemented with changing social norms and behaviours

➢ Research: Cities fit for Children and Cycling with ByCS

➢ Cycling in Tirana

➢ Pune's bicycle playground
Speed: Can you make the light?

- TODDLER (0-2 YEARS): 0.52 m/s
- CANE/CRUTCH: 0.80 m/s
- PRESCHOOLER (3-6 YEARS): 0.84 m/s
- SENIOR: 0.67 - 1.20 m/s
- WALKER*: 0.63 m/s
- RHEUMATOID ARTHRITIS: Knee: 0.75 m/s Hip: 0.68 - 1.12 m/s
- WHEELCHAIR*: 1.08 m/s
- ABLE-BODIED ADULT: 1.46 m/s

*Limitation of user unspecified
Reaching Scale Neighbourhood planning

- Tirana, reaching scale via 48 neighbourhood-scale interventions
- Neighbourhood level indicators, design, engagement processes within city-wide framework
Reaching Scale Neighbourhood planning

- Bogotá, *Crezco con mi barrio* project
- Neighbourhood scale tactical urbanism
- Community engagement and city officials engagement
- Reduced traffic speeds, accidents and increased use of public space by residents

**Figura 3 - Análisis de tendencias por categorías del diario de campo en NVivo, Talleres de grupos focales**

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
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<tbody>
<tr>
<td>52%</td>
<td>77%</td>
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<tr>
<td>15%</td>
<td>57%</td>
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**Boletín 3 - URBAN95 BOGOTA**

Vehicles that stop at the crossing
Caregivers that hold their children’s hand at the crossing
Public Space and Walkable Streets on disadvantaged neighbourhoods

- Lima, walking routes
- Testing and iterating to learn what works and what does not and adapting along the way.
- Identifying opportunities for action at scale
Testing and iterating when designing solutions

➢ Tactical urbanism as a methodology
➢ Istanbul, Turkey
➢ With NACTO’s Streets for Kids
Air Pollution

BREATHS PER MINUTE

30-60
Newborns & Infants

24-40
Toddlers

12-18
Adults
Air Pollution in Early Childhood

In brief

Air pollution is a global health emergency, and young children are the most vulnerable. Polluted air causes long-lasting damage to babies and toddlers, whose brains and bodies are still developing and who breathe in more toxic air than adults. Policies are needed to reduce emissions at source, while protecting children from the pollution which already exists.

3 Things to Remember

- Air pollution inflicts short- and long-term damage on children, impairing development and causing chronic health problems.
- Young children are most vulnerable, as they breathe more air and travel or play close to sources of pollution—like vehicle exhausts.
- Action is needed at all levels, from national clean energy policies to mapping local pollution to protect children.

Reducing Air Pollution Through Urban Design

It is true that you can only take action on something you can quantify and “see.” In this novel approach, by combining Google’s Air View data with Gehl’s lived experience data of children and their caregivers, we have made air pollution visible and suggested actionable urban design solutions to reduce exposure to poor air quality and increase access to better air quality at the neighbourhood and street scales.

Air quality in cities is one of the most impactful elements effecting the health and quality of life of all urban residents. For decades, it’s been a well-known and persistent challenge, but one that has seen few successfully implemented solutions.
Covid-19 briefs

We’ve compiled three briefs on ways to limit the impact of Covid-19 on babies, toddlers and those who care for them

Five ways Covid-19 economic recovery plans must invest in the next generation

Five ways health and social services can support babies, toddlers and the people who care for them through the Covid-19 pandemic

Six ways cities can support babies, toddlers and their caregivers during the Covid-19 pandemic and beyond
Inviting behavioural scientists to reinforce the effects of DESIGN on caregiver well-being and caregiving behaviours
THANK YOU!

Presented by:
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www.bernardvanleer.org/urban95