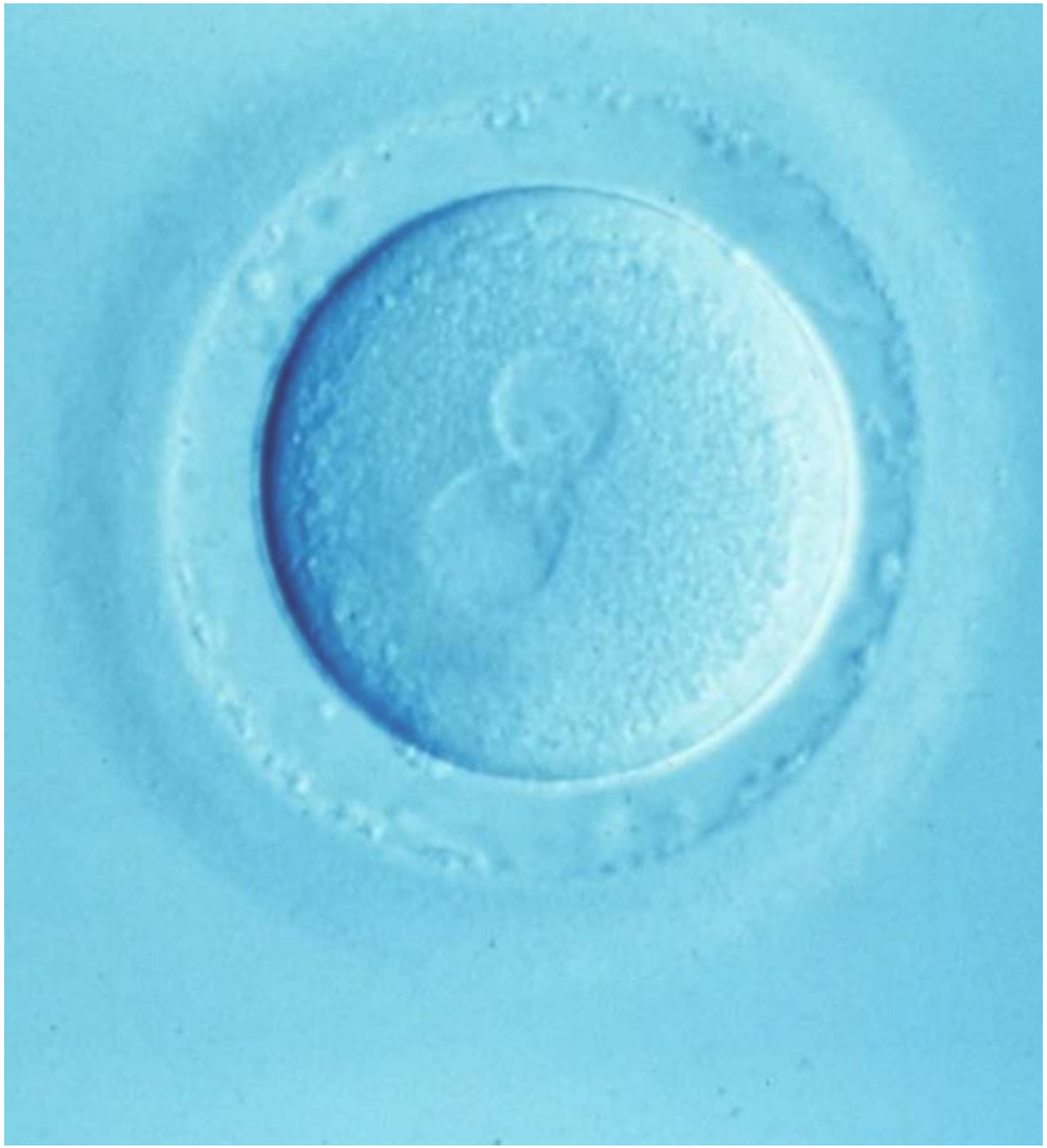
Het fundamentele belang van de eerste 1000 dagen van het leven.

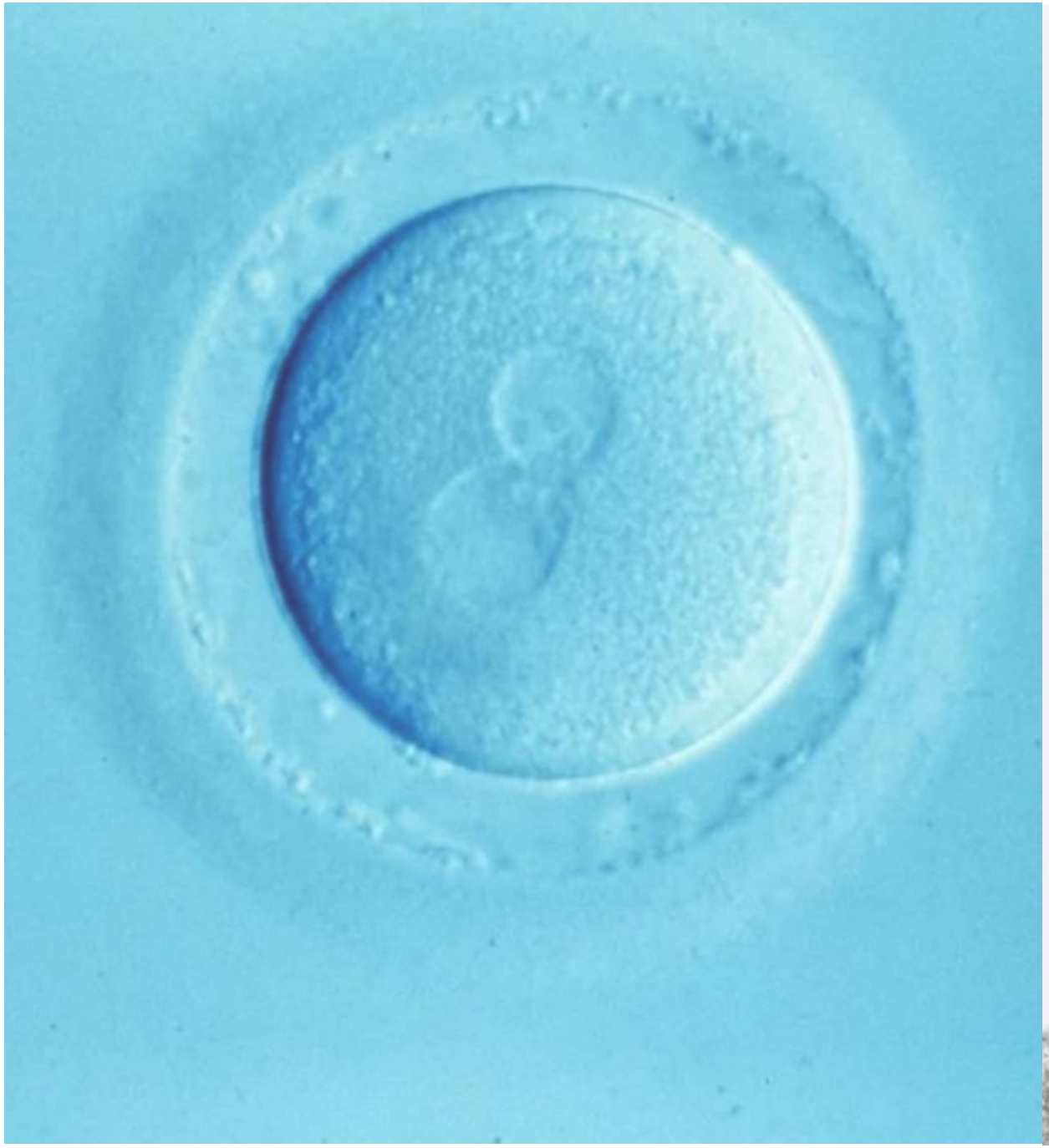
Prof.dr. Tessa Rosenboom | Amsterdam UMC

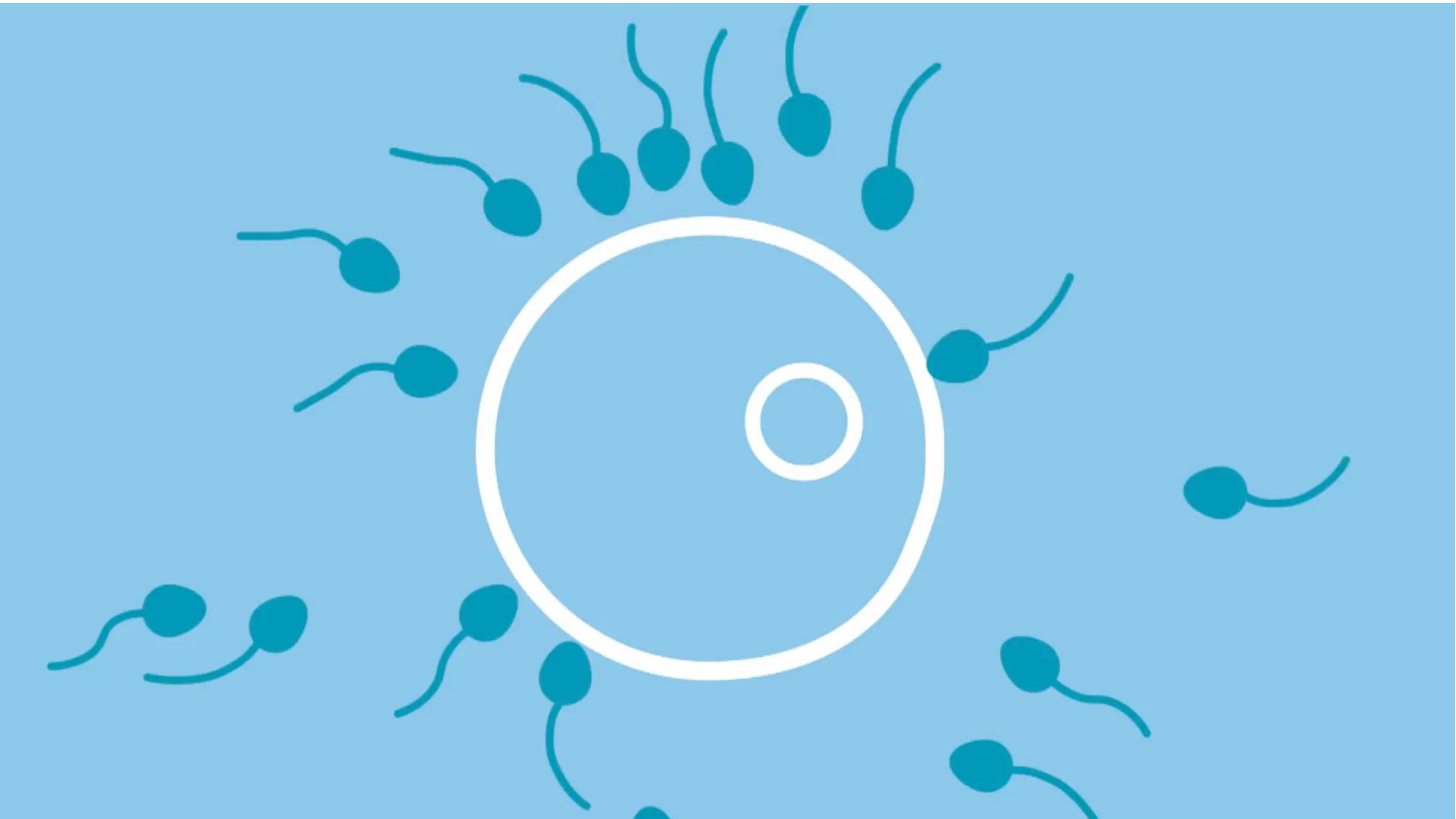


De eerste 1000 dagen

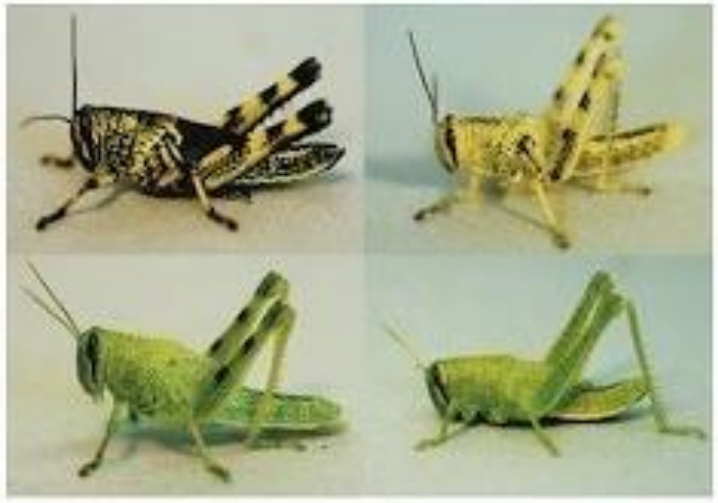
De basis voor toekomstige generaties

Prof. dr. Tessa Roseboom
Universiteit van Amsterdam
AmsterdamUMC





Wist je dat?



Alles wat leeft is gevoelig voor de omgeving

Wist je dat?

Bron: WHO

Wist je dat?

88 jaar

Bron: WHO

Wist je dat?

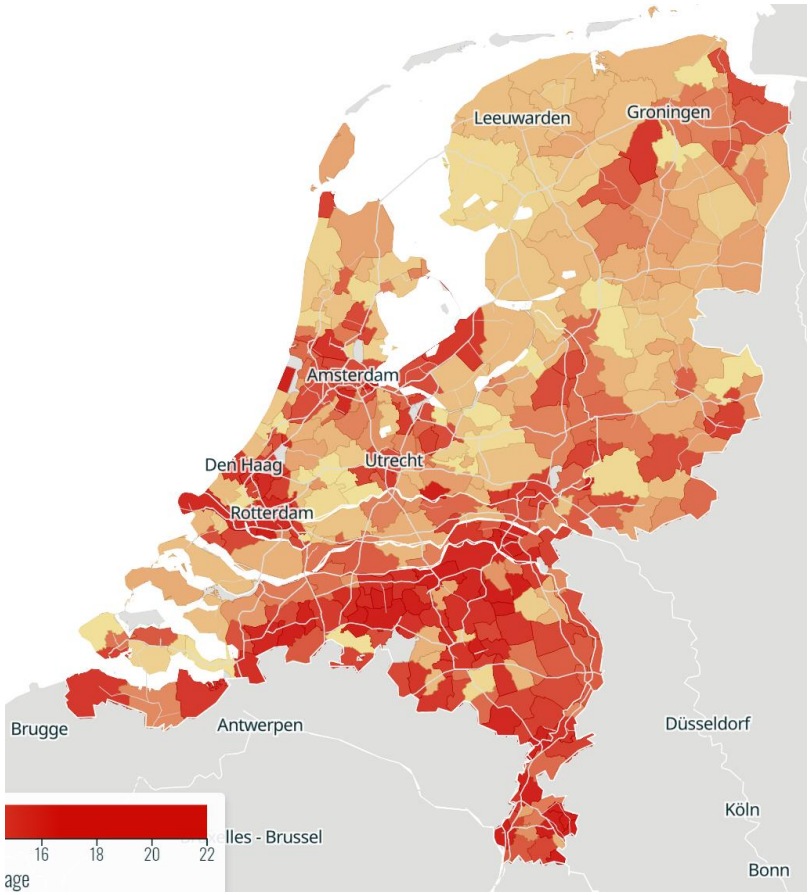
88 jaar

54 jaar

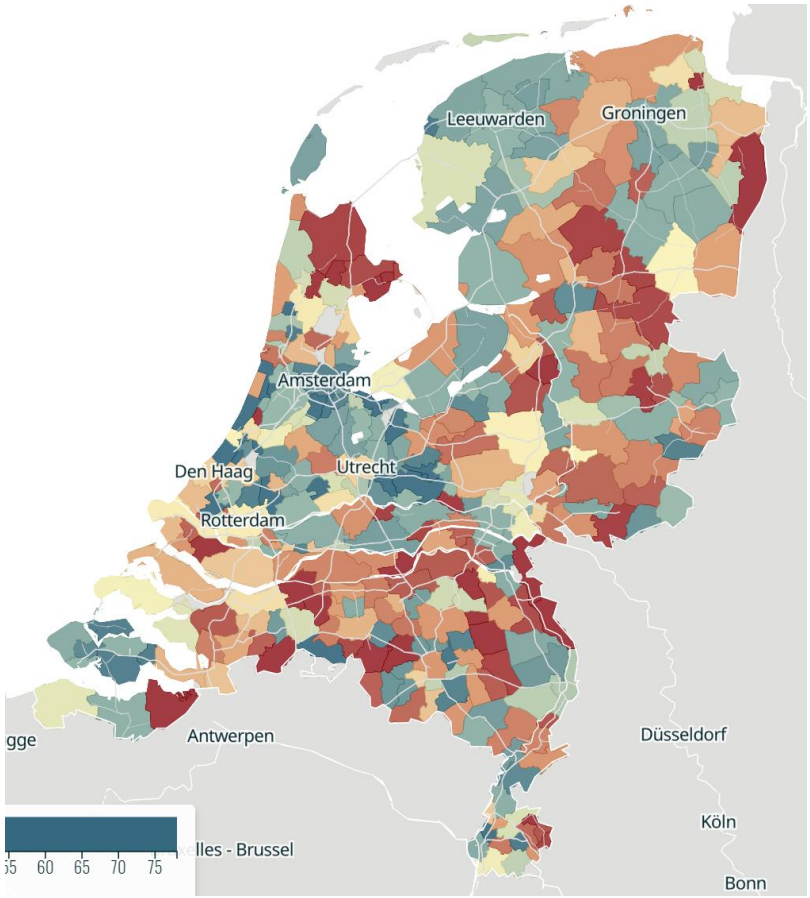
Bron: WHO

Kansen in Nederland

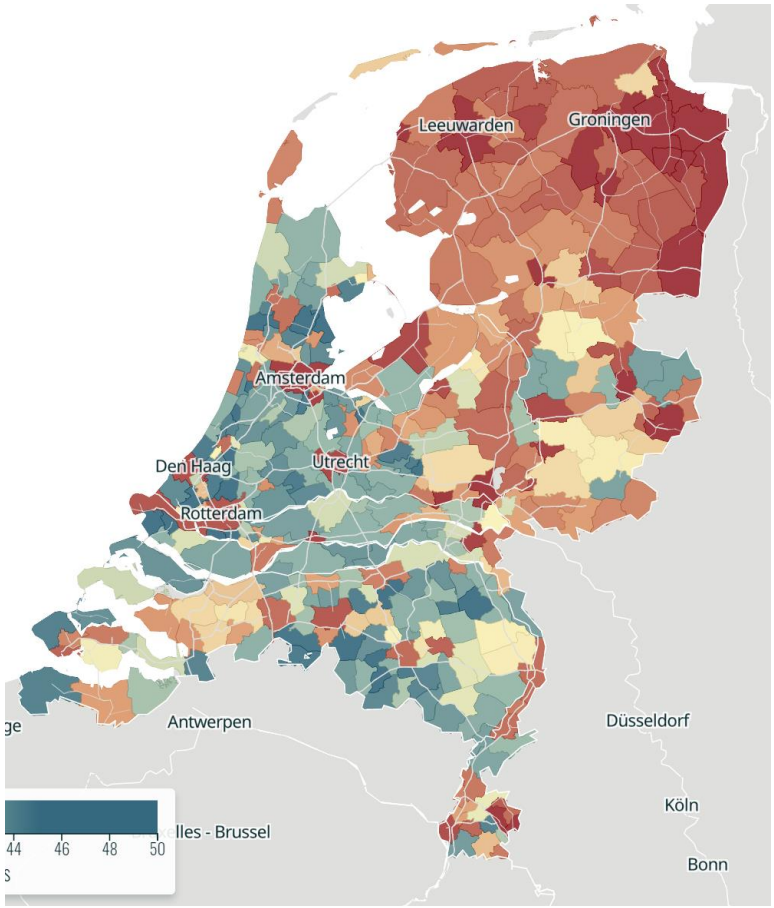
Geboortegewicht

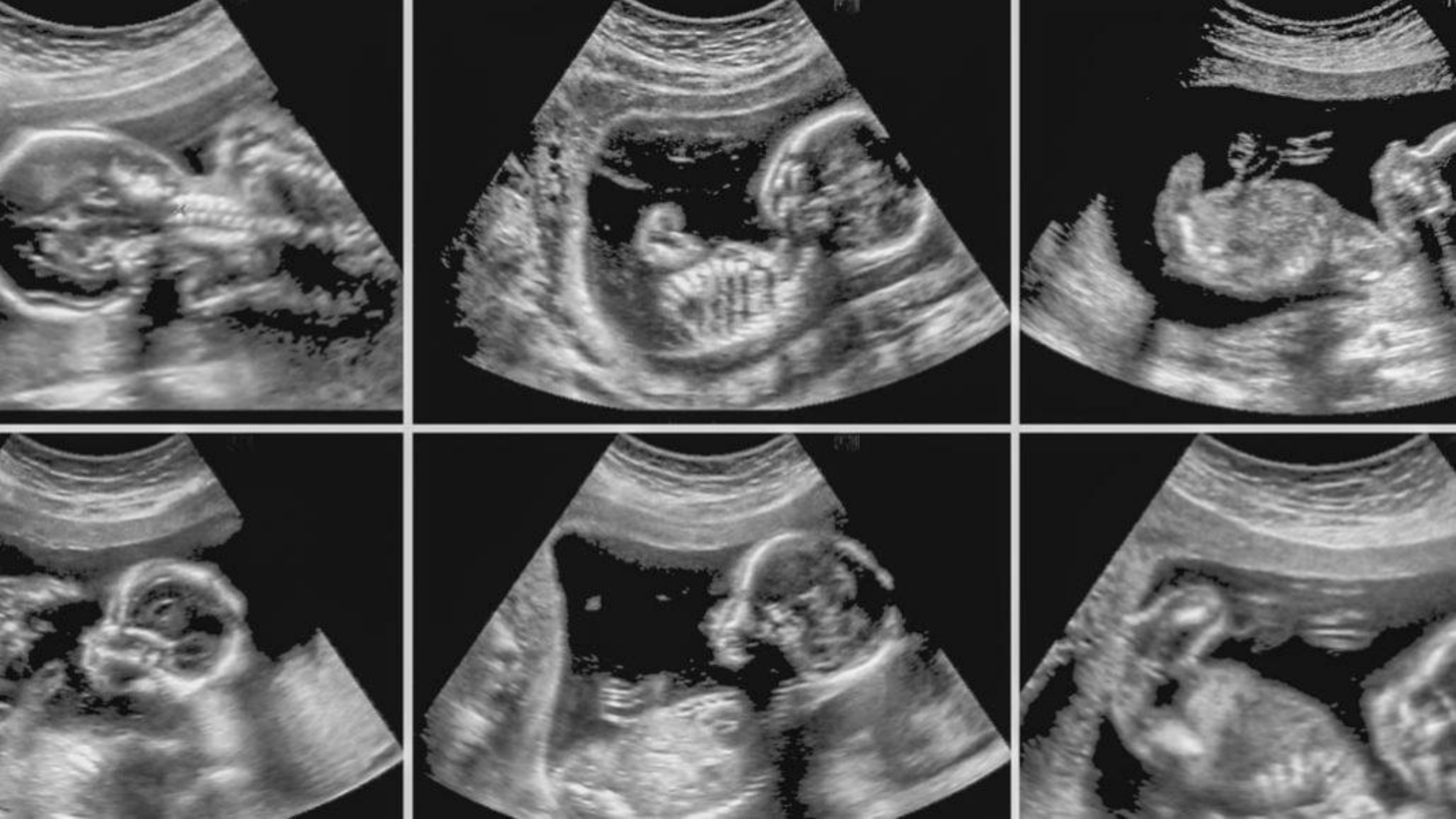


Schooladvies



Inkomen





Het maakt niet echt uit wat de stressor is, armoede, geweld, verwaarlozing.

Stress beïnvloedt de architectuur en de structuur van het brein, en daarmee de levenslange functie.

Nog voor je op deze wereld bent, kruipt armoede in je lichaam, je ziel en je organen, om je vervolgens nooit meer helemaal los te laten. Dat beperkt je groei en beïnvloedt zelfs je DNA. Kinderarmoede gaat daarom om veel meer dan kinderen.

Armoede houdt je klein. Letterlijk

de Correspondent

Stress onder de allerkleinsten

Maar hoe zit dat met die vier volle Johan Cruijff ArenA's met kinderen die de eerste duizend dagen hebben doorstaan?

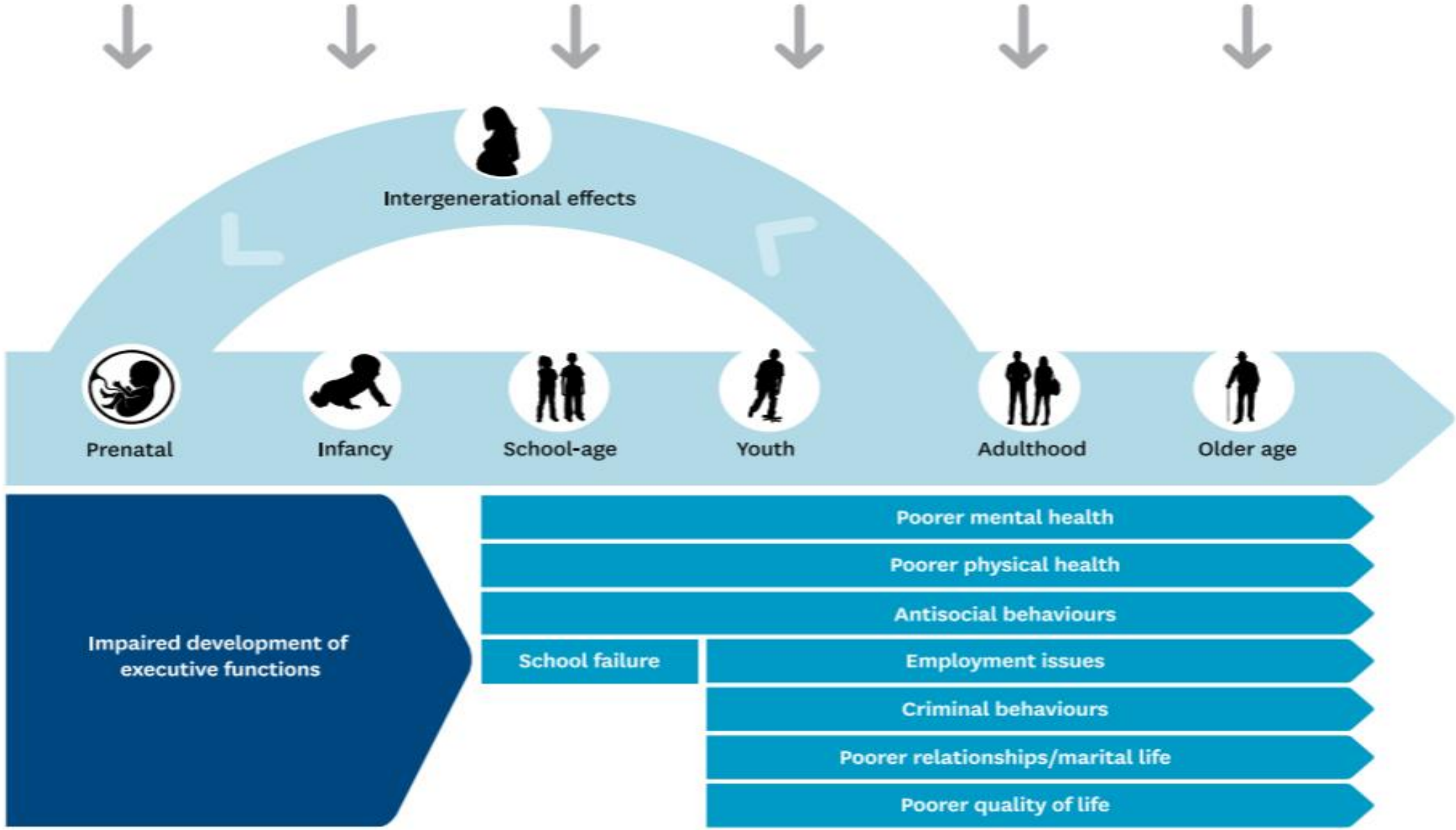
Kinderen die opgroeien in armoede lopen een grote kans om blootgesteld te worden aan chronische stress. Dat is zeker het geval als het de ouders onvoldoende lukt om de nodige veiligheid te bieden, bijvoorbeeld door het inzetten van een ondersteunend sociaal netwerk.

Daarbij komt dat met name bij langdurige armoede of generatiearmoede de kans op langdurige deprivatie groot is.

Shit begint dan te clusteren: huiselijk geweld, onderwijsachterstanden, middelengebruik in het gezin, ongezonde leefstijl – want een goed ontbijt is een tijdrovende luxe – psychische problematiek en verwaarlozing of afwezigheid van de ouders.

Als dit het geval is, dan wordt de jeugdige blootgesteld aan wat we *early-life stress* noemen. Onschuldig is dat niet. Kinderen die verregaand te maken hebben gehad met *early-life stress*, hebben vaker verstoorde hormoonhuishoudingen en immuunsystemen, en gaan op cognitief en sociaal-emotioneel niveau disfunctioneren.

Je zou kunnen zeggen: de samenleving heeft er baat bij als ieder mens zijn potentieel kan ontwikkelen. Dat niemand geremd wordt door een tekort aan voedingsstoffen, liefdevolle aandacht en stimulatie. Want veel van de zorgkosten nu komen voort uit het verhelpen van vroeger opgelopen schade. Het is armoede die zich genesteld heeft in ziel en organen.

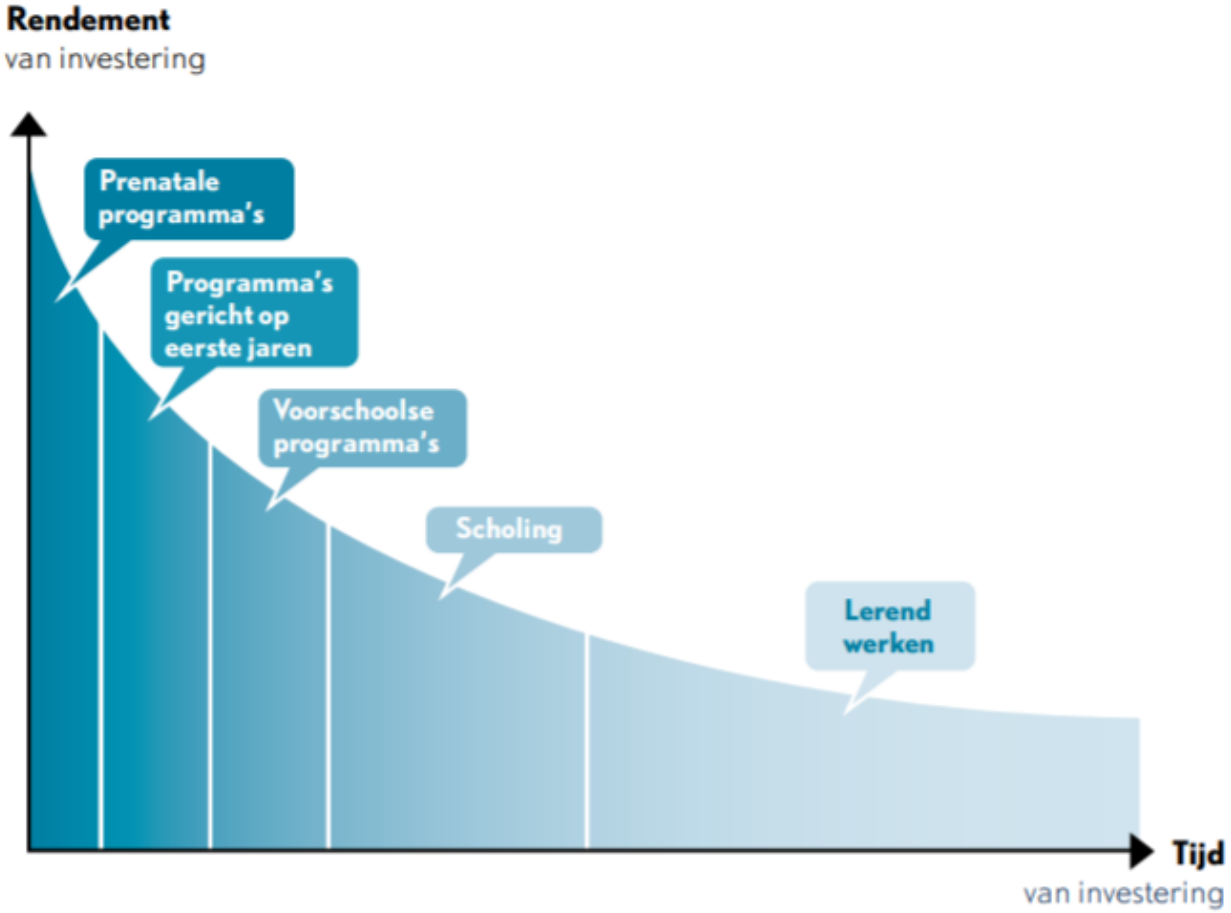

Intergenerational effects
Prenatal
Infancy
School-age
Youth
Adulthood
Older age
Impaired development of executive functions
Poorer mental health
Poorer physical health
Antisocial behaviours
School failure
Employment issues
Criminal behaviours
Poorer relationships/marital life
Poorer quality of life

www.compassionprisonproject.org

Richmond Rakerd et al Nature 2020

HOE EERDER JE INVESTEERT

HOE GROTER HET RENDEMENT



Bron: Heckman, 2006

Everyone gains when we invest, develop and sustain the early development of the world's greatest natural resource – its people.

James Heckman

Argumenten voor creëren van klimaat waarin kinderen kans krijgen hun potentieel te ontwikkelen


UNITED NATIONS
CONVENTION ON THE RIGHTS OF THE CHILD
IN CHILD-FRIENDLY LANGUAGE
CHILDREN FIRST CANADA
ARTICLE 2
All children have these rights, no matter who they are, where they live, what their parents do, what language they speak, what their religion is, whether they are a boy or girl, what their culture is, whether they have a disability, whether they are rich or poor. No child should be treated unfairly on any basis.
ARTICLE 3
All adults should do what is best for you. When adults make decisions, they should think about how their decisions will affect children.
ARTICLE 4
The government has a responsibility to make sure your rights are protected. They must help your family to protect your rights and create an environment where you can grow and reach your potential.
ARTICLE 5
Your family has the responsibility to help you learn to exercise your rights, and to ensure that your rights are protected.
ARTICLE 6
You have the right to be alive.
ARTICLE 7
You have the right to a name, and this should be officially recognized by the government. You have the right to a nationality (to belong to a country).
ARTICLE 8
You have the right to an identity – an official record of who you are. No one should take this away from you.
ARTICLE 9
ARTICLE 11
You have the right to be protected from kidnapping.
ARTICLE 12
You have the right to give your opinion, and for adults to listen and take it seriously.
ARTICLE 13
You have the right to find out things and share what you think with others, by talking, drawing, writing or in any other way unless it harms or offends other people.
ARTICLE 14
You have the right to choose your own religion and beliefs. Your parents should help you decide what is right and wrong, and what is best for you.
ARTICLE 15
You have the right to choose your own friends and join or set up groups, as long as it isn't harmful to others.
ARTICLE 16
You have the right to privacy.
ARTICLE 17
You have the right to get information that is important to your wellbeing, from radio, newspaper, books, computers and other sources. Adults should make sure that the information you are getting is not harmful, and help you find and understand the information you need.
ARTICLE 18
You have the right to be raised by your parent(s) if possible.
ARTICLE 19
You have the right to be protected from being hurt and mistreated, in body or mind.
ARTICLE 20
You have the right to special care and help if you cannot live with your parents.
ARTICLE 21
You have the right to care and protection if you are adopted or in foster care.
ARTICLE 22
You have the right to special protection and help if you are a refugee (if you have been forced to leave your home and live in another country), as well as all the rights in this Convention.
ARTICLE 23
You have the right to special education and care if you have a disability, as well as all the rights in this Convention, so that you can live a full life.
ARTICLE 24
You have the right to the best health care possible, safe water to drink, nutritious food, a clean and safe environment, and information to help you stay well.
ARTICLE 25
ARTICLE 28
You have the right to a good quality education. You should be encouraged to go to school to the highest level you can.
ARTICLE 29
Your education should help develop your talents and abilities. It should also help you learn to live peacefully, protect the environment and respect other people.
ARTICLE 30
You have the right to practice your own culture, language and religion – or any you choose. Minority and indigenous groups need special protection of this right.
ARTICLE 31
You have the right to play and rest.
ARTICLE 32
You have the right to protection from work that harms you, and is bad for your health and education. If you work, you have the right to be safe and paid fairly.
ARTICLE 33
You have the right to protection from harmful drugs and from the drug trade.
ARTICLE 34
You have the right to be free from sexual abuse.
ARTICLE 35
No one is allowed to kidnap or sell you.
ARTICLE 36
You have the right to protection from any kind of exploitation (being taken advantage of).
ARTICLE 37
No one is allowed to punish you in a cruel or harmful way.
ARTICLE 38
You have the right to protection and freedom from war. Children under 15 cannot be forced to go into the army or take part in war.
ARTICLE 39
ARTICLE 40
You have the
and fair
system.

Eraan herinnerende dat de Verenigde Naties in de Universele Verklaring van de Rechten van de Mens hebben verkondigd dat kinderen recht hebben op bijzondere zorg en bijstand,

Indachtig dat, zoals aangegeven in de Verklaring van; de Rechten van het Kind, „**het kind op grond van zijn lichamelijke en geestelijke onrijpheid bijzondere bescherming en zorg nodig heeft, met inbegrip van geëigende wettelijke bescherming, zowel vóór als na zijn geboorte**”,

Bij alle maatregelen betreffende kinderen, ongeacht of deze worden genomen door openbare of particuliere instellingen voor maatschappelijk welzijn of door rechterlijke instanties, bestuurlijke autoriteiten of wetgevende lichamen, **vormen de belangen van het kind de eerste overweging.**

De Staten die partij zijn, **doen alles wat in hun vermogen ligt om de erkenning te verzekeren van het beginsel dat beide ouders de gezamenlijke verantwoordelijkheid dragen voor de opvoeding en de ontwikkeling van het kind.** Ouders of, al naar gelang het geval, wettige voogden, **hebben de eerste verantwoordelijkheid** voor de opvoeding en de ontwikkeling van het kind. Het belang van het kind is hun allereerste zorg.

Om de toepassing van de in dit Verdrag genoemde rechten te waarborgen en te bevorderen**, verlenen de Staten die partij zijn passende bijstand aan ouders en wettige voogden bij de uitoefening van hun verantwoordelijkheden die de opvoeding van het kind betreffen, en waarborgen zij de ontwikkeling van instellingen, voorzieningen en diensten voor kinderzorg**.

Ministerie van Volksgezondheid,
Welzijn en Sport

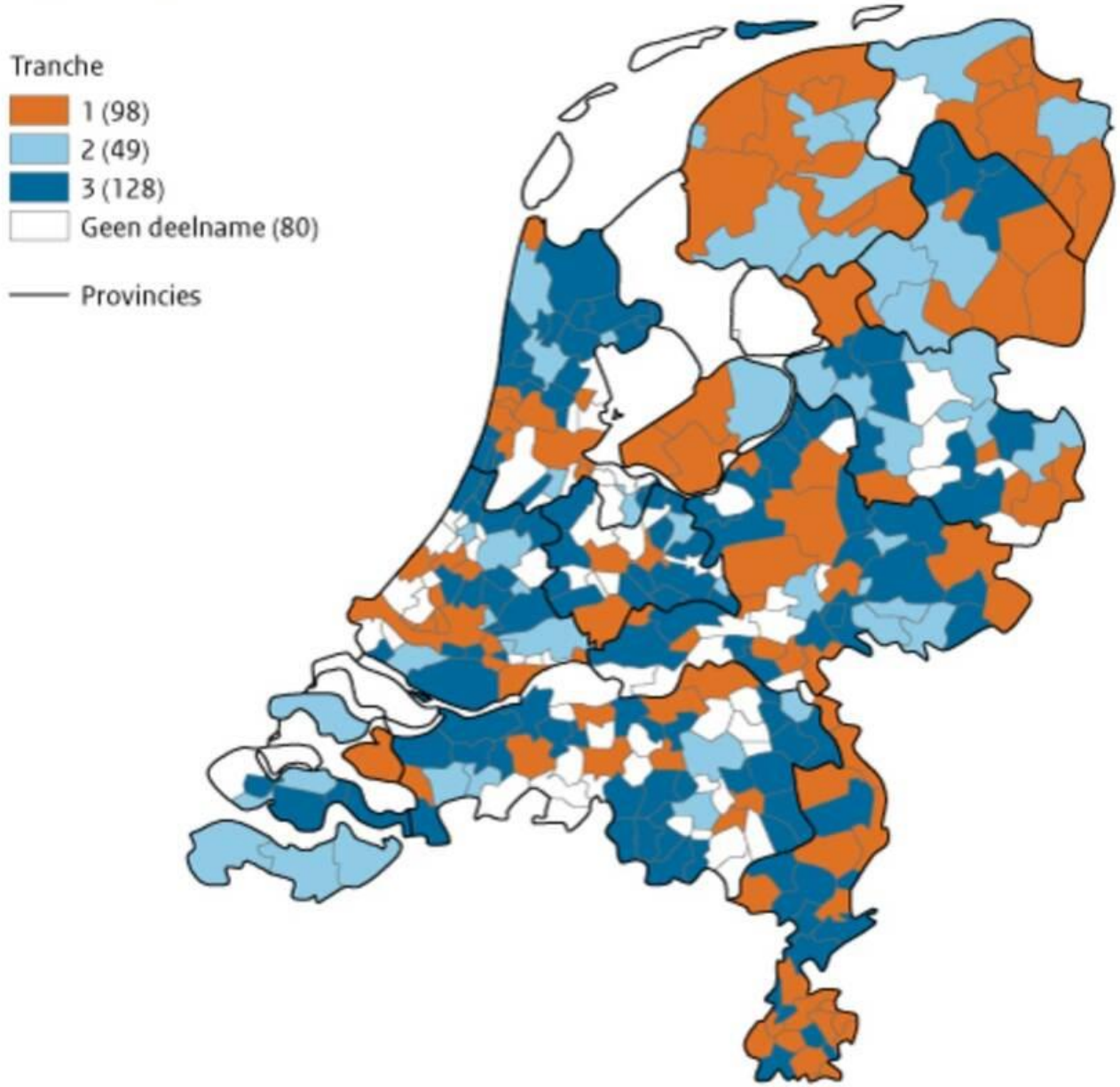
Nationaal actie programma

Kansrijke **Start**

Investeren in de eerste 1000 dagen van het leven

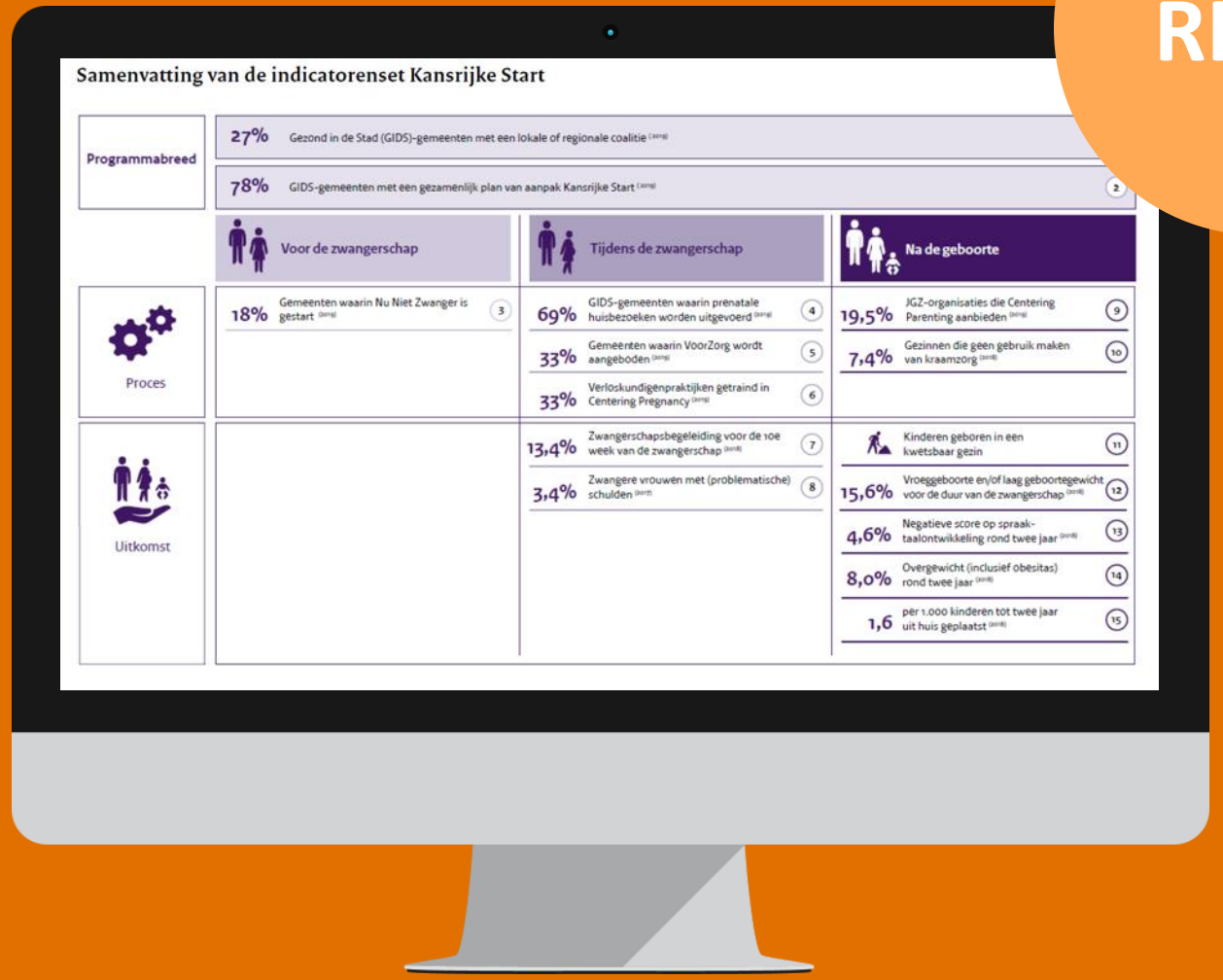
Lokale coalities Kansrijke Start

Per gemeente, peildatum 1 februari 2021



Bron: Gemeenten

Monitor



CBS

RIVM

YHC

vektis

Omzien naar elkaar, vooruitkijken naar de toekomst

Coalitieakkoord 2021 – 2025

VVD, D66, CDA en ChristenUnie

Omzien naar elkaar, vooruitkijken naar de toekomst

Coalitieakkoord 2021 – 2025

VVD, D66, CDA en ChristenUnie

Preventie, sport en bewegen

•**We willen meer aandacht voor preventie en een gezonde levensstijl van jongs af aan. Kinderen die ongezond opgroeien staan veelal op een achterstand**. **Vermijdbare gezondheidsverschillen pakken we daarom aan**. We zetten de doelen van het **Preventieakkoord** door, met als doel een **gezonde generatie in 2040** met een focus op de jeugd door sport, voeding en bewegen. Dit vraagt een brede aanpak, met stimulering van gezonde keuzes en ontmoedigen van ongezonde keuzes, zonder mensen in hun vrijheid te beperken.

•We voeren in elke gemeente het programma **Kansrijke Start** in. Zo ondersteunen we vrouwen en pasgeborenen bij de eerste 1000 dagen die cruciaal zijn voor gezondheid, welzijn en latere ontwikkeling.

Een gezonde wereld begint bij een gezonde jeugd

Dutch Youth are the healthiest in the world

TIME March 23, 2040

By Amanda Gardner

In a global assessment across 168 countries, the World Health Organization has ranked the Dutch Youth as the healthiest.

The international benchmarking is based on the health of 21-year olds across a number of key drivers of health (physical activity, nutrition, safe sexual practices, bullying, tobacco, alcohol and other substance use, and relaxation and sleep) – across which the Netherlands now ranks 1st in all categories.

Measuring the health of 21 year-olds as an indicator of youth health comes from the "Healthiest Generation" Program which was launched in 2018, one year before these 21-year olds were born. Youth-related illness (e.g.

DE GEZONDE GENERATIE

SOAIDS Nederland
aidsfonds
ALS
alzheimer nederland
nederlandse brandwonden stichting
Epilepsiefonds
Diabetes Fonds
HandicapNL IEDEREEN EERLIJKE KANSEN
Hartstichting
Hersenstichting
JKF Kinderfonds
KNCV TUBERCULOSEFONDS
KWF KANKER BESTRIJDING
LONG FONDS
maag lever darm stichting
MIND
stichting research
NIERSTICHTING Je nieren zijn je leven
ReumaNederland
PRINSES BEATRIX SPIER FONDS
45 JAAR TROMBOSESTICHTING NEDERLAND

DE GEZONDE GENERATIE

Gezonde Generatie | Supporten | Nieuws | Thema's | Contact

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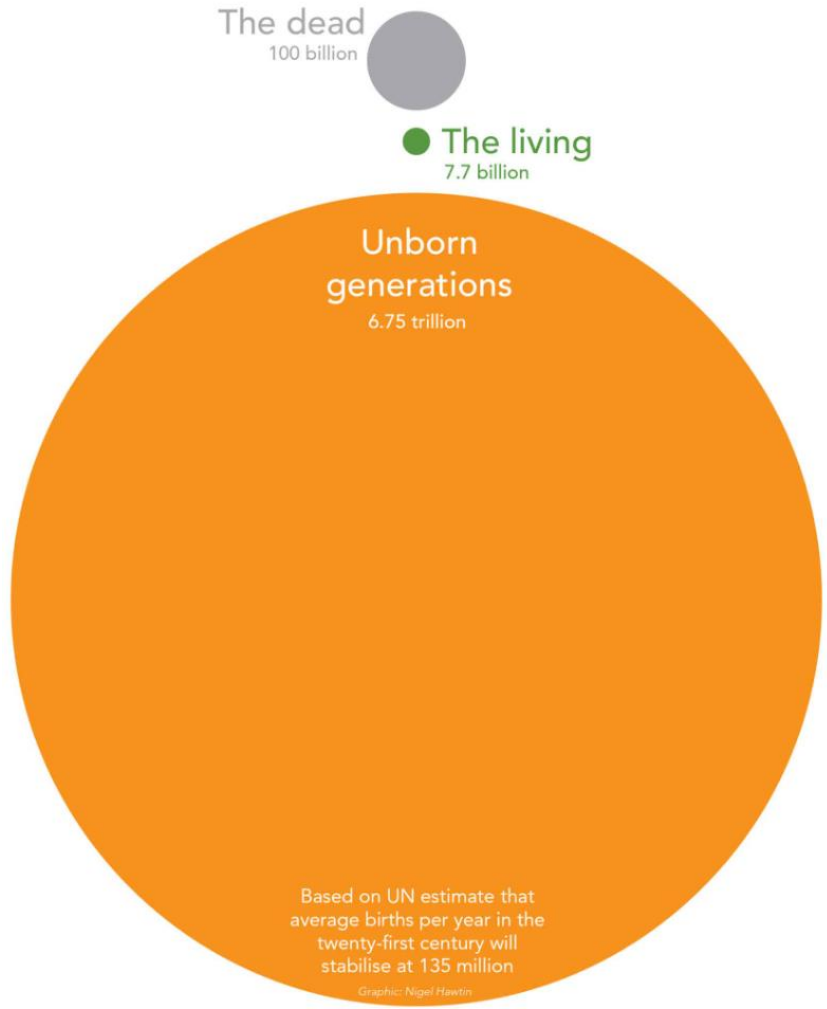
Measuring the health of 21 year-olds as an indicator of youth health comes from the "Healthiest Generation" Program which was launched in 2018, one year before these 21-year olds were born. Youth-related illness (e.g. obesity, stress, depression, and sexually transmitted diseases) have all been declining steadily since the

DE GEZONDE GENERATIE


Do your little bit of good where you are
its those little bits of good put together
that overwhelm the world
Desmund Tutu

The scale of unborn generations

Looking 50,000 years into the past and 50,000 into the future – assuming that the twenty-first century's birth rate remains constant – all human lives ever lived are far outweighed by all those yet to come



Ongeboren betekent ongehoord, ongezien, onbeschermd ongeboren generaties dragen de langste lasten

Honger beïnvloedt ongeboren en kleine kinderen

Social Science & Medicine 68 (2009) 1315–1321

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Social Science & Medicine

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Famine, death, and madness: Schizophrenia in early adulthood after prenatal exposure to the Chinese Great Leap Forward Famine☆

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[b] School of Public Health and Family Medicine, Capital Medical University, Beijing, China
[c] UCLA School of Medicine, Los Angeles, USA

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Survival analysis
Schizophrenia
Selection effect
Lifecourse

ABSTRACT

Using data from large scale, nationally representative sample surveys, we tested the hypothesis that prenatal exposure to famine increases schizophrenia risk at adulthood by studying the Great Leap Forward Famine in China (1959–1961). Our results show that, in the urban population, being conceived and born during the famine increased the risk of developing schizophrenia at early adulthood as compared to both the pre-famine and post-famine cohorts. In the rural population, however, the post-famine cohort had the highest risk of developing schizophrenia, and there was virtually no difference in schizophrenia risk between the pre-famine and the famine cohort. This finding contrasts sharply with previous studies on the Dutch Hunger Winter as well as with smaller scale local studies in China based on hospital records. We offer an explanation for the urban–rural difference in the schizophrenia–famine relationship based on population selection by differential excess mortality and provide supportive evidence through province- and cohort-level ecological analysis

OPEN ACCESS Freely available online

PLoS one

Hypertension, Diabetes and Overweight: Looming Legacies of the Biafran Famine

Martin Hult[1☯], Per Tornhammar[1☯], Peter Ueda[1☯], Charles Chima[3], Anna-Karin Edstedt Bonamy[2], Benjamin Ozumba[3], Mikael Norman[1*]

1 Department of Clinical Science, Intervention and Technology, Karolinska Institute, Stockholm, Sweden, 2 Department of Women's and Children's Health, Karolinska Institute, Stockholm, Sweden, 3 University of Nigeria Teaching Hospital, Enugu, Nigeria

Abstract

Background: Sub-Saharan Africa is facing rapidly increasing prevalences of cardiovascular disease, obesity, diabetes and hypertension. Previous and ongoing undernutrition among pregnant women may contribute to this development as suggested by epidemiological studies from high income countries linking undernutrition in fetal life with increased burden of non-communicable diseases in later life. We undertook to study the risks for hypertension, glucose intolerance and overweight forty years after fetal exposure to famine afflicted Biafra during the Nigerian civil war (1967–1970).

Methods and Findings: Cohort study performed in June 27–July 31, 2009 in Enugu, Nigeria. Adults (n = 1,339) born before (1965–67), during (1968–January 1970), or after (1971–73) the years of famine were included. Blood pressure (BP), random plasma glucose (p-glucose) and anthropometrics, as well as prevalence of hypertension (BP>140/90 mmHg), impaired glucose tolerance (IGT; p-glucose 7.8–11.0 mmol/l), diabetes (DM; p-glucose ≥11.1 mmol/l), or overweight (BMI>25 kg/m^2) were compared between the three groups. Fetal-infant exposure to famine was associated with elevated systolic (+7 mmHg; p<0.001) and diastolic (+5 mmHg; p<0.001) BP, increased p-glucose (+0.3 mmol/L; p<0.05) and waist circumference (+3cm, p<0.001), increased risk of systolic hypertension (adjusted OR 2.87; 95% CI 1.90–4.34), IGT (OR 1.65; 95% CI 1.02–2.69) and overweight (OR 1.41; 95% CI 1.03–1.93) as compared to people born after the famine. Limitations of this study include the lack of birth weight data and the inability to separate effects of fetal and infant famine.

Conclusions: Fetal and infant undernutrition is associated with significantly increased risk of hypertension and impaired glucose tolerance in 40-year-old Nigerians. Prevention of undernutrition during pregnancy and in infancy should therefore be given high priority in health, education, and economic agendas.

Citation: Hult M, Tornhammar P, Ueda P, Chima C, Edstedt Bonamy A-K, et al. (2010) Hypertension, Diabetes and Overweight: Looming Legacies of the Biafran Famine. PLoS ONE 5(10): e13582. doi:10.1371/journal.pone.0013582

Editor: J. Jaime Miranda, Universidad Peruana Cayetano Heredia, Peru

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Competing Interests: The authors have declared that no competing interests exist.

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☯ These authors contributed equally to this work.

Association between type 2 diabetes and prenatal exposure to the Ukraine famine of 1932–33: a retrospective cohort study

L H Lumey, Mykola D Khalangot, Alexander M Vaiserman

Summary

Background The effect of fetal and early childhood living conditions on adult health has long been debated, but empirical assessment in human beings remains a challenge. We used data from during the man-made Ukrainian famine of 1932–33 to examine the association between restricted nutrition in early gestation and type 2 diabetes in offspring in later life.

Methods We included all patients with type 2 diabetes diagnosed at age 40 years or older in the Ukraine national diabetes register 2000–08, and used all individuals born between 1930 and 1938 from the 2001 Ukraine national census as the reference population. This study population includes individuals born before and after the famine period as controls, and those from regions that experienced extreme, severe, or no famine. We used prevalence odds ratios (ORs) as the measure of association between type 2 diabetes and early famine exposure, with stratification by region, date of birth, and sex for comparisons of diabetes prevalence in specific subgroups.

Findings Using these two datasets, we compared the odds of type 2 diabetes by date and region of birth in 43 150 patients with diabetes and 1 421 024 individuals born between 1930 and 1938. With adjustment for season of birth, the OR for developing type 2 diabetes was 1·47 (95% CI 1·37–1·58) in individuals born in the first half of 1934 in regions with extreme famine, 1·26 (1·14–1·39) in individuals born in regions with severe famine, and there was no increase (OR 1·00, 0·91–1·09) in individuals born in regions with no famine, compared with births in other time periods. Multivariable analyses confirmed these results. The associations between type 2 diabetes and famine around the time of birth were similar in men and women.

Interpretation These results show a dose–response relation between famine severity during prenatal development and odds of type 2 diabetes in later life. Our findings suggest that early gestation is a critical time window of development; therefore, further studies of biological mechanisms should include this period.

Funding Ukraine State Diabetes Mellitus Program, US National Institutes of Health.

Lancet Diabetes Endocrinol 2015; 3: 787–94

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See Comment page 751

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Correspondence to: Dr L H Lumey, Department of Epidemiology, Mailman School of Public Health, Columbia

Pandemie beïnvloedt ongeboren kinderen

Lingering prenatal effects of the 1918 influenza pandemic on cardiovascular disease

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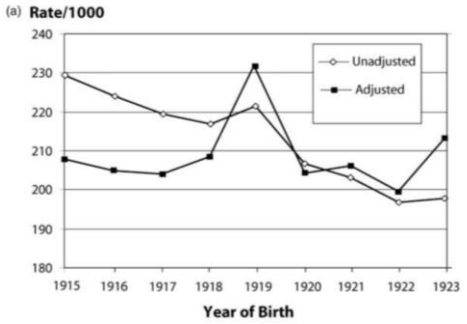
[2] Department of Economics and SIPA, Columbia University, New York, NY, USA
[3] Harris School of Public Policy, University of Chicago, Chicago, IL, USA
[4] Andrus Gerontology Center, University of Southern California, Los Angeles, CA, USA



Is the 1918 Influenza Pandemic Over? Long-Term Effects of *In Utero* Influenza Exposure in the Post-1940 U.S. Population

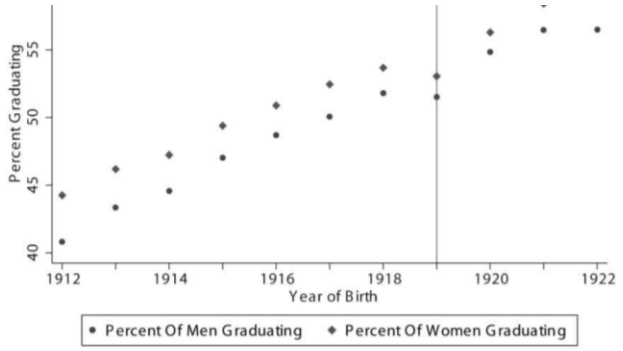


FIG. 4.—1970 high school graduation: by year of birth

ONLINE RESEARCH AND PRACTICE

Early Life Exposure to the 1918 Influenza Pandemic and Old-Age Mortality by Cause of Death

Mikko Myrskylä, PhD, Neil K. Mehta, PhD, and Virginia W. Chang, MD, PhD

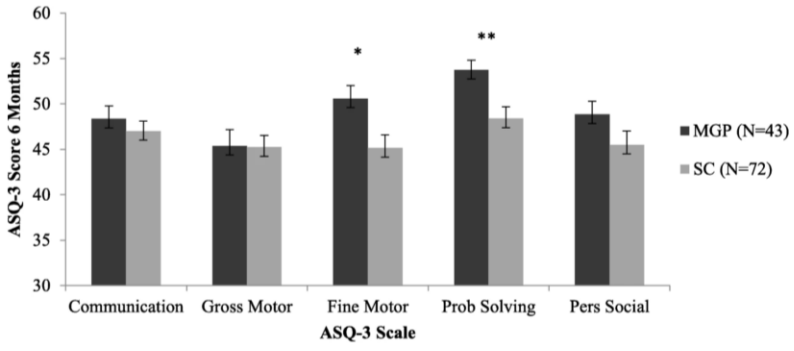
Objectives. We sought to analyze how early exposure to the 1918 influenza pandemic is associated with old-age mortality by cause of death.

Methods. We analyzed the National Health Interview Survey (n = 81 571; follow-up 1989–2006; 43 808 deaths) and used year and quarter of birth to assess timing of pandemic exposure. We used Cox proportional and Fine-Gray competing hazard models for all-cause and cause-specific mortality, respectively.

Results. Cohorts born during pandemic peaks had excess all-cause mortality attributed to increased noncancer mortality. We found evidence for a trade-off between noncancer and cancer causes: cohorts with high noncancer mortality had low cancer mortality, and vice versa.

Conclusions. Early disease exposure increases old-age mortality through noncancer causes, which include respiratory and cardiovascular diseases, and may trigger a trade-off in the risk of cancer and noncancer causes. Potential mechanisms include inflammation or apoptosis. The findings contribute to our understanding of the causes of death behind the early disease exposure–later mortality association. The cancer–noncancer trade-off is potentially important for understanding the mechanisms behind these associations. (*Am J Public Health*. 103:e83-e90. https://doi.org/10.2105/AJPH.2012.301060)

Klimaat rampen beïnvloeden ongeboren en jonge kinderen



* $p < .05$; ** $p < .005$

Comparison between the scores on the Ages and Stages Questionnaire (ASQ-3) scales for infants whose mothers received Midwifery Group Practice (MGP) or Standard Care (SC) in pregnancy, when controlling for the effects of flood-related objective hardship

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DNA methylation mediates the impact of exposure to prenatal maternal stress on BMI and central adiposity in children at age 13½ years: Project Ice Storm

Lei Cao-Lei[1,2,†], Kelsey N Dancause[3,†], Guillaume Elgbeili[2], Renaud Massart[4], Moshe Szyf[5], Aihua Liu[2], David P Laplante[2], and Suzanne King[1,2,*]

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Keywords: body mass index, central adiposity, DNA methylation, Ice Storm, mediating effect, prenatal maternal stress

Prenatal maternal stress (PNMS) in animals and humans predicts obesity and metabolic dysfunction in the offspring. Epigenetic modification of gene function is considered one possible mechanism by which PNMS results in poor outcomes in offspring. Our goal was to determine the role of maternal objective exposure and subjective distress on child BMI and central adiposity at 13½ years of age, and to test the hypothesis that DNA methylation mediates the effect of PNMS on growth. Mothers were pregnant during the January 1998 Quebec ice storm. We assessed their objective exposure and subjective distress in June 1998. At age 13½ their children were weighed and measured (n = 66); a subsample provided blood samples for epigenetic studies (n = 31). Objective and subjective PNMS correlated with central adiposity (waist-to-height ratio); only objective PNMS predicted body mass index (BMI). Bootstrapping analyses showed that the methylation level of genes from established Type-1 and -2 diabetes mellitus pathways showed significant mediation of the effect of objective PNMS on both central adiposity and BMI. However, the negative mediating effects indicate that, although greater objective PNMS predicts greater BMI and adiposity, this effect is dampened by the effects of objective PNMS on DNA methylation, suggesting a protective role of the selected genes from Type-1 and -2 diabetes mellitus pathways. We provide data supporting that DNA methylation is a potential mechanism involved in the long-term adaptation and programming of the genome in response to early adverse environmental factors.

nature COMMUNICATIONS

ARTICLE

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Open fire exposure increases the risk of pregnancy loss in South Asia

Tao Xue[1,5,6✉], Guannan Geng[2,5], Yiqun Han[3], Huiyu Wang[1], Jiajianghui Li[1], Hong-tian Li[1], Yubo Zhou[1] & Tong Zhu[4,6]

Interactions between climate change and anthropogenic activities result in increasing numbers of open fires, which have been shown to harm maternal health. However, few studies have examined the association between open fire and pregnancy loss. We conduct a self-comparison case-control study including 24,876 mothers from South Asia, the region with the heaviest pregnancy-loss burden in the world. Exposure is assessed using a chemical transport model as the concentrations of fire-sourced $PM_{2.5}$ (i.e., fire $PM_{2.5}$). The adjusted odds ratio (OR) of pregnancy loss for a 1-μg/m^3 increment in averaged concentration of fire $PM_{2.5}$ during pregnancy is estimated as 1.051 (95% confidence intervals [CI]: 1.035, 1.067). Because fire $PM_{2.5}$ is more strongly linked with pregnancy loss than non-fire $PM_{2.5}$ (OR: 1.014; 95% CI: 1.011, 1.016), it contributes to a non-neglectable fraction (13%) of $PM_{2.5}$-associated pregnancy loss. Here, we show maternal health is threaten by gestational exposure to fire smoke in South Asia.

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Editorial

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Unheard, unseen and unprotected: DOHaD council's call for action to protect the younger generation from the long-term effects of COVID-19

Tessa J. Roseboom[1], Susan E. Ozanne[2], Keith M. Godfrey[3], Carmen R. Isasi[4], Hiroaki Itoh[5], Rebecca Simmons[6], Amita Bansal[6], Mary Barker[3], Torsten Plosch[7], Deb M. Sloboda[8], Stephen G. Matthews[9], Caroline H. D. Fall[3], Lucilla Poston[10] and Mark A. Hanson[11]

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Using the 'shit' of the current COVID-19 crisis as fertiliser for the soil to lay the foundations of a new and sustainable era: lessons from past crises to improve the future

ABSTRACT

Studies of past crises have demonstrated that adverse experiences during critical periods of human development hamper the individual's ability to reach its full potential and leaves lasting marks on health, behaviour, productivity and society as a whole. The COVID-19 crisis has severely worsened the environment in which we live and in which our future generations are being shaped, and will lead to loss of future human potential and capital. It is clear that the COVID-19 pandemic does not only harm the current world population, but also affects our future, as well as that of future generations. The science of transgenerational plasticity demonstrates that investments in early life hold the promise of having beneficial effects across multiple generations. As governments are reopening societies and prioritising policies, their overarching goal should be to improve the environment in which future generations grow and develop, learn and live. This will change the lifetime trajectories of children for the better and affect future health, school success, behaviour, productivity and well-being. This prioritisation will prove to be the most effective intervention to build sustainable futures but will also yield returns many times the original investment. It is a promising way to break the intergenerational cycle of adversity and accelerate progress on achieving the Sustainable Development Goals.

Summary box

What is already known about this subject?

- Studies of past crises have demonstrated that adverse experiences during critical periods of human development hamper the individual's ability to reach its full potential and leaves lasting marks on health, behaviour, productivity and society as a whole.

What are the new findings?

- The COVID-19 pandemic has a negative effect on the environment in which future generations are being shaped, with increased rates of poverty (Sustainable Development Goal, SDG1), hunger (SDG2), disease (SDG3), gender inequality and violence (SDG5) and disruption of education (SDG4).

What are the recommendations for policy and practice?

- Policies should prioritise investments in improving the environment in which future generations grow and develop, this will change the lifetime trajectories of children for the better and affect future health, school success, behaviour, productivity and well-being.
- Such policies will yield returns many times the original investment, provide a promising way to break the intergenerational cycle of adversity and accelerate progress on achieving the SDGs.

critical periods of human development hampers the individual's ability to reach its full potential and leaves lasting marks on health, behaviour, productivity and society as a whole. For instance, men and women who were exposed to the 1944–1945 wartime starvation in the Netherlands during the earliest phases of their development in utero, had poorer mental and physical health as adults, with poorer cognitive function, lower labour market participation, increased levels of hospitalisation and increased mortality.[1] Strikingly similar consequences were found among those who were exposed to famines in different settings, such as The Great Leap Forward Famine in China, and the Biafran famine.[2,3] MRI scans of the brain revealed lasting consequences [illegible] influenza pandemic had lower educational attainment, income and socioeconomic status and increased rates of physical disability, and cardiovascular disease than cohorts born before or after the pandemic.[7,8] Clearly, adverse environmental experiences during critical periods of development affect human health and potential across the lifespan.

This may not be surprising since the most rapid growth and development in the human lifespan occurs in the earliest years of life when most biological milestones are met. The environmental conditions in which the individual grows and develops shape the ability to learn, school success, economic participation, behaviour, susceptibility to disease and addiction, and overall health and

危機 = 危 + 機

CRISIS gevaar kans

De coronacrisis
ALS TRANSFORMATIE

Rups	Cocon	Vlinder
Veelvraat		Vederlicht
Traag		Wendbaar
Consumptie		Ballast overboord
Meer meer meer		Win win win
Verbruik		Gebruik
Ouderschap		
Ouders houden alle ballen in de lucht		Ouders worden ondersteund
Parttime prinsessen		Ouderschap als verantwoordelijke taak
Ambitieuze carrièretijgers		Betrokken vaders en moeders in balans
Ontwikkeling en onderwijs		
Toetsen		Stimuleren
Leerplicht		Ontwikkelrecht
Gezondheid		
Reactief		Proactief
Korte termijn		Lange termijn
Ziekenzorg		Gezondheidszorg
Medicijnen		Maatschappij als voedingsbodem
Nazorg		Voorzorg
Behandeling		Preventie

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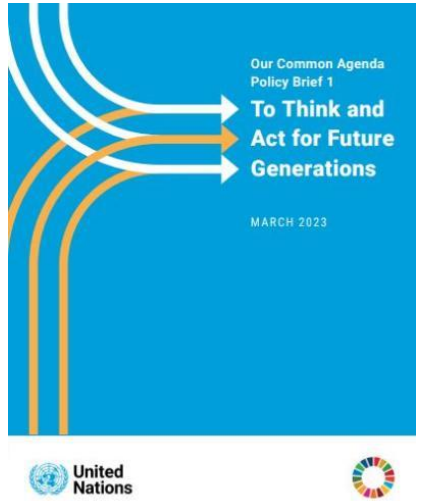

Samenwerkende GezondheidsFondsen
SGF

LAB TOEKOMSTIGE GENERATIES

Inspectie SZW
Ministerie van Sociale Zaken en Werkgelegenheid

Ministerie van Onderwijs, Cultuur en Wetenschap

Ministerie van Volksgezondheid, Welzijn en Sport


Do your little bit of good where you are
its those little bits of good put together
that overwhelm the world
Desmund Tutu