



PaRx: A Prescription for Personal and Planetary Health

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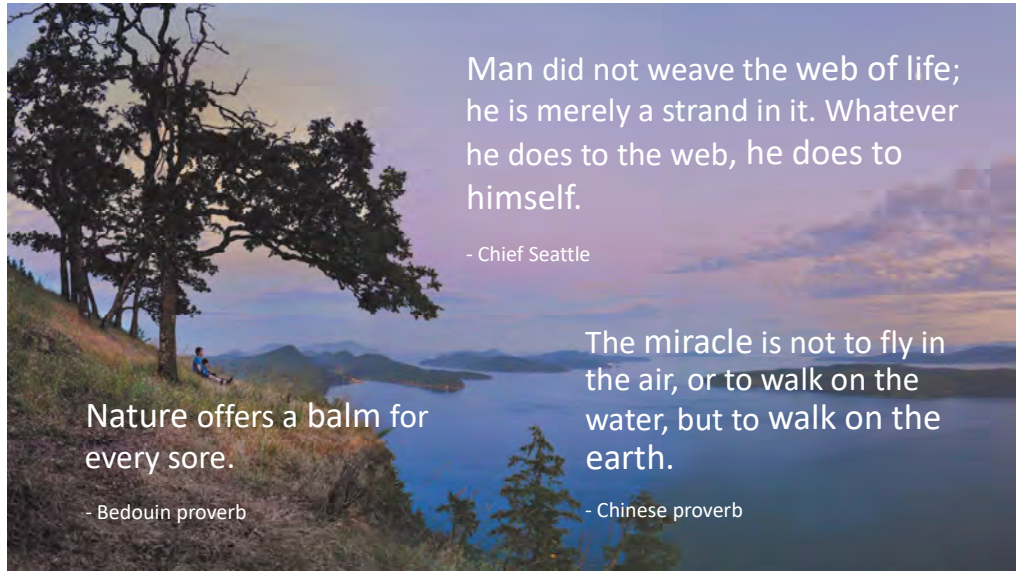
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PaRx

In one word, describe how you feel when you are outside in nature.



Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web, he does to himself.

- Chief Seattle

Nature offers a balm for every sore.

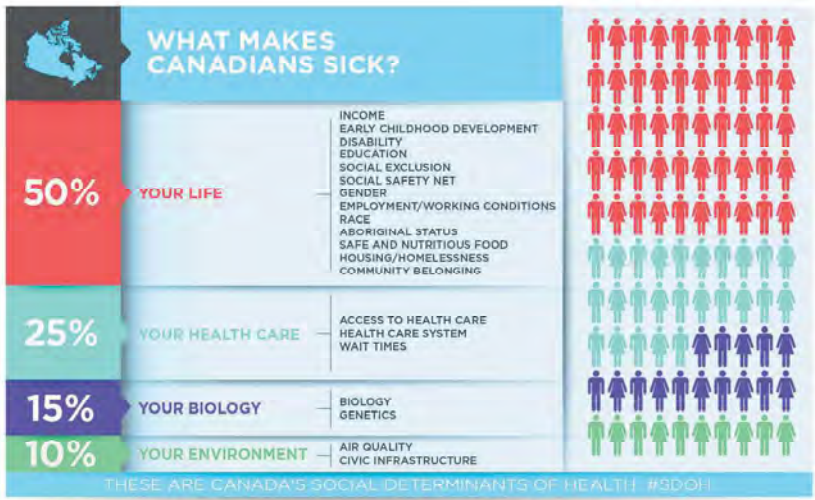
- Bedouin proverb

The miracle is not to fly in the air, or to walk on the water, but to walk on the earth.

- Chinese proverb



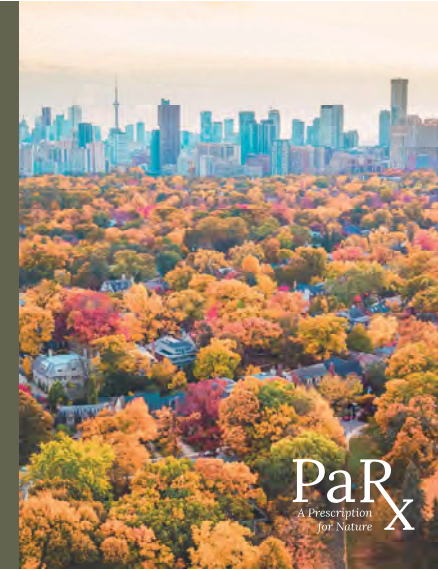
Photo by Adrian Lang on Pexels



Source: <https://www.homelesshub.ca/blog/infographic-wednesday-social-determinants-health>

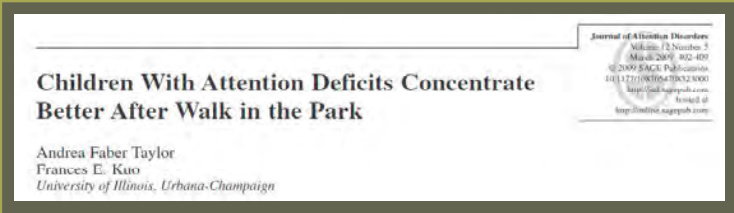


Photo by Alex on Unsplash



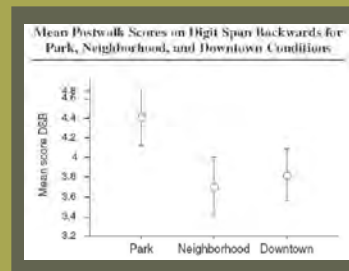
PaRx
A Prescription
for Nature

- Toronto study combined:
- High-resolution satellite imagery
 - Individual tree data
 - Ontario Health Study data and self-reports of health perception
- 10 more trees/block improved health perception by:
- Increase in personal income of \$10,000/year
 - Moving to a neighbourhood with \$10,000/year higher median income
 - Being 7 years younger



PaRx

- 17 children with ADHD were guided on three 20-minute walks through:
- city park
 - downtown area
 - residential area
- A 20-minute walk in the park:
- improved DSB performance to levels in children w/o ADHD
 - rivalled the peak effects of Ritalin



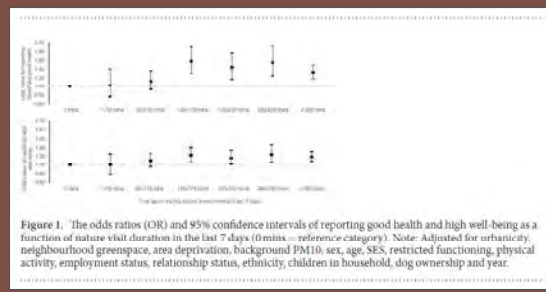
People report significantly better health and wellbeing after spending ___ in nature per week:

- 1 1 hour
- 2 2 hours
- 3 3 hours
- 4 4 hours
- 5 5 hours

PaRx

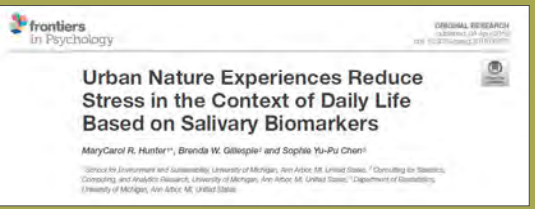


- Study of 19,806 adults in England
- Likelihood of reporting good health or high well-being significantly greater at nature contact ≥ 120 min/week
- Positive associations peaked between 200-300 min/week



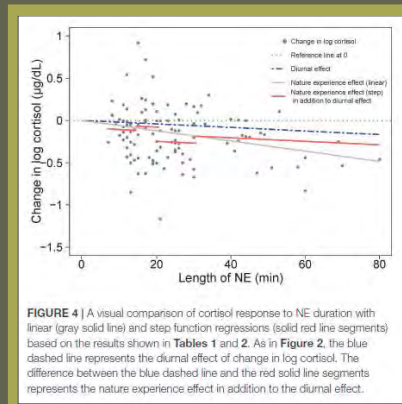
The most efficient drop in cortisol levels happens between ___ in nature:

- ① 5 to 10 minutes
- ② 10 to 20 minutes
- ③ 20 to 30 minutes
- ④ 30 to 60 minutes
- ⑤ 1 to 2 hours



- Over 8 weeks, 36 urban dwellers were asked to have a nature experience (NE):
- In an outdoor place with a sense of nature contact
 - At least 3 times/week
 - For 10 minutes or more

Cortisol/stress levels \downarrow 21.3% more after NE.
 Efficiency of 'nature pill' greatest between 20-30 minutes



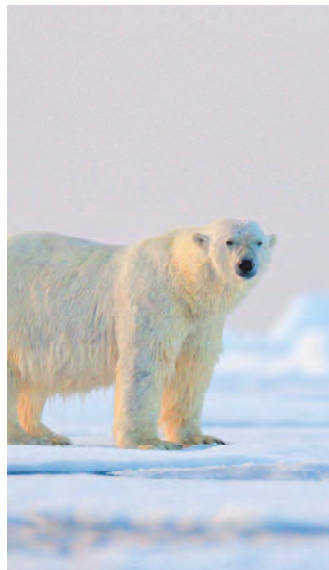
Health as an Effective Message

- Lessons from climate change research:
- Surveys conducted with >7,500 participants in 5 countries (China, Germany, India, UK, USA)
 - Participants asked to read 5 pairs of statements, and asked which would make them more likely to support policies tackling climate change

- Findings:
- Health* and Environmental framing increased support
 - Economic framing had no effect
 - Opportunity* framing increased support > Threat
 - Present impacts more motivating than Future impacts

Focusing on current health impacts and opportunities in public policy messaging = more motivating to change behaviour

Davies, N et al. How Do Different Frames Affect Public Support for Climate Change Policy? Evidence from a Multi-Country Survey January 2021.



Connecting to Nature is Good for the Planet

PaRx

- Health care is a major contributor to global CO2 emissions.¹
- Urban nature makes cities healthier.²
- Children who have more nature experiences are more likely to become adult environmentalists—and adults who are more connected to nature are more likely to protect it.³

“Nature is ‘one of the most effective ways’ of combatting climate change and should be part of every country’s climate strategy”⁴

Inger Andersen, Executive Director, UN Environment Programme

¹ <https://nham-global.org/document/health-care-climate-footprint-report> ² <https://www.epa.gov/green-infrastructure/reduce-urban-heat-island-effect>
³ Wells NJJ, Lekse KS. Children Youth Environ. 2006;19(1):1-24. ⁴ <https://news.un.org/en/story/2019/09/1046752>

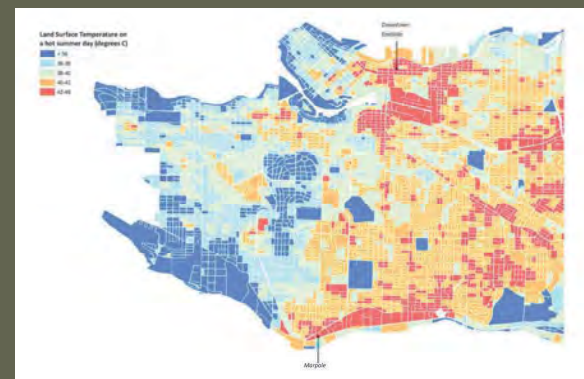
More Trees + Vegetation = Healthier Cities

PaRx

Urban Greening Benefits:

- Shade ↓ need for air conditioning
- Lower energy demand ↓ air pollution and GHG emissions
- Removal of air pollutants
- Sequestration of CO2
- Reduced stormwater runoff + improved water quality by absorbing and filtering rainwater
- Every \$1 invested in a tree returns up to \$3 in benefits⁵

Shaded surfaces are 11-25°C cooler than peak temperatures of unshaded ones⁶



⁵ <https://www.epa.gov/healthlands/using-trees-and-vegetation-reduce-heat-islands>
⁶ Akbari H, D. Kurn, et al. 1997. Peak power and cooling energy savings of shade trees. Energy and Buildings 25:139-148



Who we are ▾ What we do ▾ Case studies ▾ News & stories ▾ Events ▾ Contact ▾



IEA

International Journal of Environmental Research and Public Health
 Article Access Full Text (1 November 2018)
 10 pages view

Green Space and Built Environment

Urban green space, tree canopy and prevention of cardiometabolic diseases: a multilevel longitudinal study of 46 786 Australians

Thomas Astell-Burt^{1*} and Kang Fang²

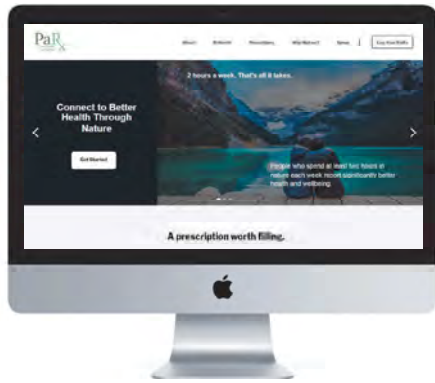
¹Population Monitoring and Environment Research Unit (PMERU), School of Health and Society, Faculty of Social Sciences, University of Wollongong, Wollongong, New South Wales, Australia; ²School of Public Health and Community Medicine, University of New South Wales, Sydney, New South Wales, Australia

Health Benefits of 30% Tree Cover

- ↓ Diabetes 31%¹
- ↓ Cardiovascular Disease 22%
- ↓ Hypertension 17%
- ↓ Psychological Distress 31%²
- ↓ Poor Sleep 13%³
- ↓ Loneliness 25%⁴

¹ Astell-Burt T, & Fang K. (2017). Longitudinal study of the health benefits of urban green space. *Environmental Health Perspectives*, 125(12), 2203-2210.
² Astell-Burt T, & Fang K. (2017). Longitudinal study of the health benefits of urban green space. *Environmental Health Perspectives*, 125(12), 2203-2210.
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parkprescriptions.ca
prescri-nature.ca

PaRx



Social Prescribing

"A means of connecting patients to a range of non-clinical services in the community to improve their health and well-being"

- WHO

Allows provision of more holistic, person-centred care

Empowers patients to take care of their own health and well-being → Reduces stress on health systems

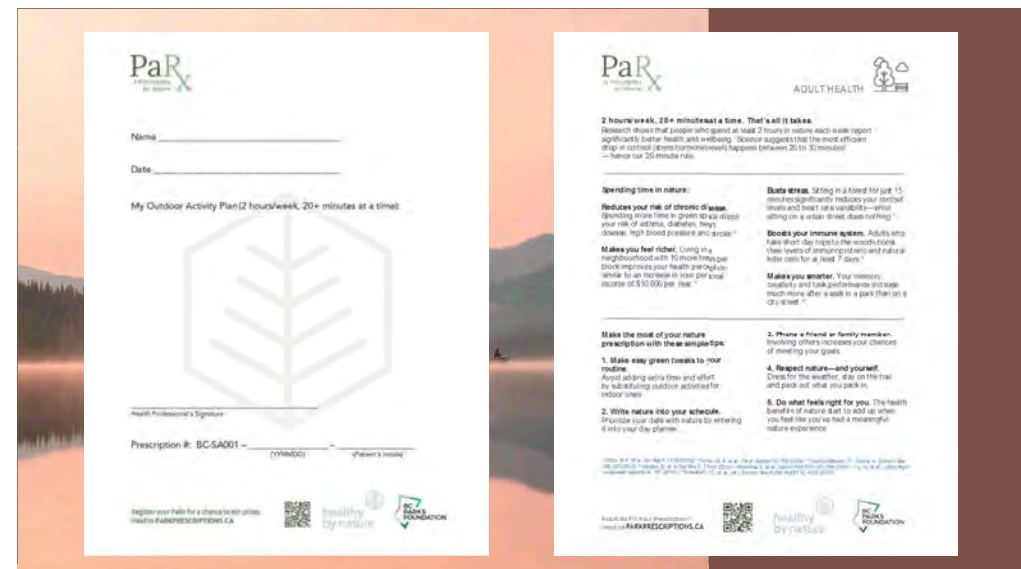
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<https://www.who.int/publications/i/item/9789290649765>

Fig. 1. Example of a social prescribing patient pathway built on the "holistic" model outlined by Husk and colleagues



Source: Husk et al. (1)



PaRx endorsements

PaRx



and 85 other partners and endorsers

Protect and restore nature as the foundation of our health.

Protect and restore nature as the foundation for healthy lives and livelihoods.

COPIE SPECIAL REPORT ON CLIMATE CHANGE AND HEALTH

THE HEALTH ARGUMENT FOR CLIMATE ACTION

- **Eight cities rewilding their urban spaces.** Cities across the world - including Singapore, Dublin, Sydney and Barcelona - are working to create open spaces and "rewild" their communities, to combat the global loss of nature while bringing health benefits to communities. [Learn more here.](#)
- **A Planetary Health approach to rainforest conservation in Madagascar.** The Manombo Special Reserve in Madagascar protects the vital habitat for many critically endangered plant and animal species, while also providing medicine and food security to local communities. [Learn more here.](#)
- **Prescribing nature in Canada.** With it, Canada's first national, evidence-based nature prescription program, driven by healthcare professionals who want to improve their patients' health by connecting them to nature. A growing body of research suggests that spending time in nature has a wide range of positive effects on human health, from reduced stress (due to improved mental health, immune function, and better outcomes). [Learn more here.](#)
- **A nature-positive green recovery in Pakistan.** The government of Pakistan is implementing a "Stimulus" plan to recover from COVID-19 while creating jobs and restoring the country's natural ecosystems. [Learn more here.](#)

Find more case studies on the [IPBES website.](#)

PaRx

Doctors in Canada can now prescribe free national park visits

guardian • Follow

guardian Just what the doctor ordered?

Research has found that spending just two hours in nature per week significantly boosts health and wellbeing... And so in Canada this is being made part of treatment plans for both physical and mental health.

Parks Canada, the agency that manages the country's 38 national parks and ten national park reserves, is collaborating with Canada's national nature prescription programme PaRx to allow registered healthcare professionals to provide a free annual passes to patients.

The pass would usually cost \$72 CAD (\$57 USD) per adult for a year of unlimited access to national parks, but this initiative would allow some doctors to prescribe them for free.

"So this is all about breaking down those barriers to access to nature," PaRx director Dr. Melissa Lem told Global News.

"There's this huge body of research showing that nature time can improve all kinds of different physical and mental health conditions, from diabetes and heart disease to ADHD and depression," she explained.

The PaRx program is aiming to be nationwide by the end of 2022 and has already gained us over 1,000 prescribers.

Liked by claudel.desr and others

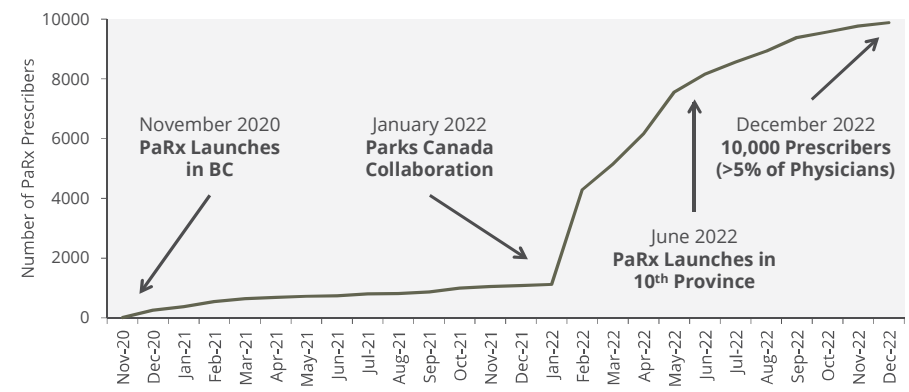
15 HOURS AGO

Add a comment...





Prescriber Growth



- Nature Prescribing formally recommended in CMA's Environmentally Sustainable Health Systems in Canada policy in 2022
 - CMA officially announced endorsement of PaRx at COP15 in Montreal
- <https://policybase.cma.ca/all-at-cop15/>

Global interest in scaling nature prescriptions worldwide:

- PaRx in WHO COP26 Special Report on Climate Change and Health¹
- Co-Investigator: \$1.5M AUD PANDA trial, cardiometabolic disease²
- International Advisor: €6.3million EU RESONATE Project³

PaRx

¹ <https://policybase.cma.ca/link/policy14489>
² <https://www.powerlab.site/research/panda-trial>
³ <https://tinyurl.com/resonate-trial>

WHO
 COP26 SPECIAL REPORT ON CLIMATE CHANGE AND HEALTH
THE HEALTH ARGUMENT FOR CLIMATE ACTION

Australian Government
 National Health and Medical Research Council
NHMRC

resonate
 RESILIENCE THROUGH NATURE-BASED THERAPIES

How many adults say they would spend more time in nature if their doctor recommended it?

- ① 10%
- ② 20%
- ③ 40%
- ④ 60%
- ⑤ 80%



Future Research Questions

How effective are nature prescriptions for improving health in the medium to long term?

What's the most effective way to prescribe nature?

How do nature prescriptions benefit the economy?

How do people in Canada feel about nature prescriptions?

Next steps

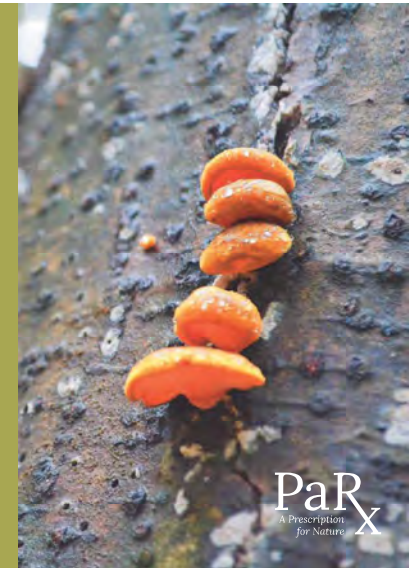
- Launch of PaRx in the Territories
- Collaborating with transportation, community and nature-based organizations to further **reduce barriers** to nature access
 - Know one? Connect us!
- Launch of PaRx **app** to track and incentivize nature time



Calls to Action


- Spend at least 2 hours in nature each week, at least 20 minutes each time
- Support **healthy government policy** to green cities (remember: 3-30-300 rule) and conserve nature and biodiversity
- Spread the word to health professionals about PaRx

parx@parkprescriptions.ca





island and hill holds an ancient traditional place name and history. There is no concept of the word wilderness in the Nuu-chah-nulth language; the closest translation is waʔyuu, meaning home.



The panel features a vertical design with a light blue background and a white section at the bottom. On the left, there is a graphic of a blue sky, white clouds, and a black and white striped pattern. The text is in a clean, sans-serif font. At the bottom, there are three logos: the District of Tofino logo (a sun over a forest), the Clayoquot Biosphere Trust logo (a mountain range), and the Tla-o-qui-aht First Nation logo (a circular emblem with a figure). A small globe icon is also present on the right side of the bottom section.