SPORT A AKTIVNÍ ŽIVOTNÍ STYL

Mgr. Lukáš Rubín, Ph.D.

KATEDRA TĚLESNÉ VÝCHOVY A SPORTU FP TU V LIBERCI

13. 3. 2024

Pohybová aktivita v současnosti

Obsah

1) **Aktuální úroveň pohybové aktivity ve světě**

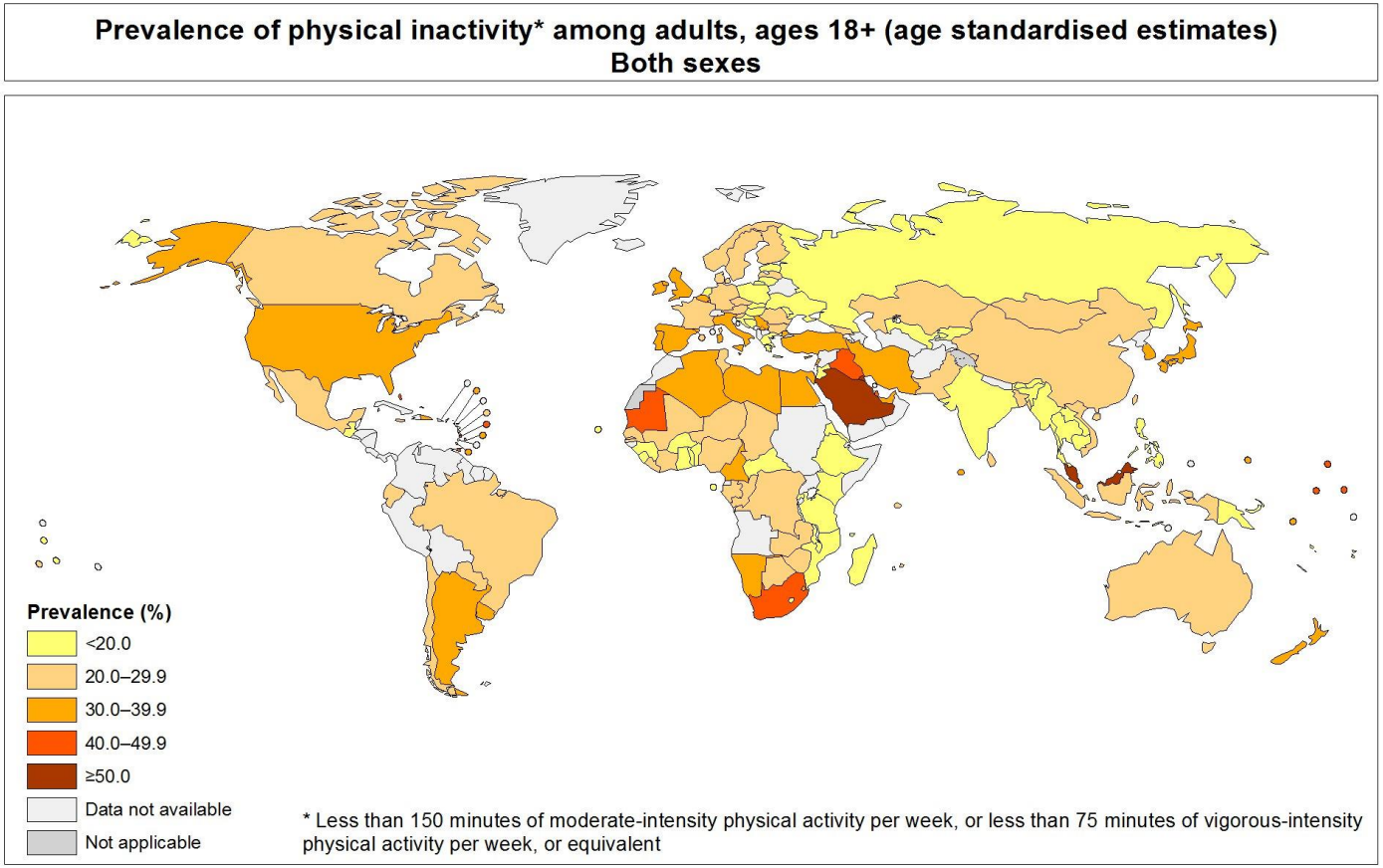
2) **Aktuální úroveň pohybové aktivity v Česku**

3) **Možnosti na změnu – intervence**

4) **Příklady dobré praxe ze zahraničí i Česka**

Pohybová aktivita ve světě

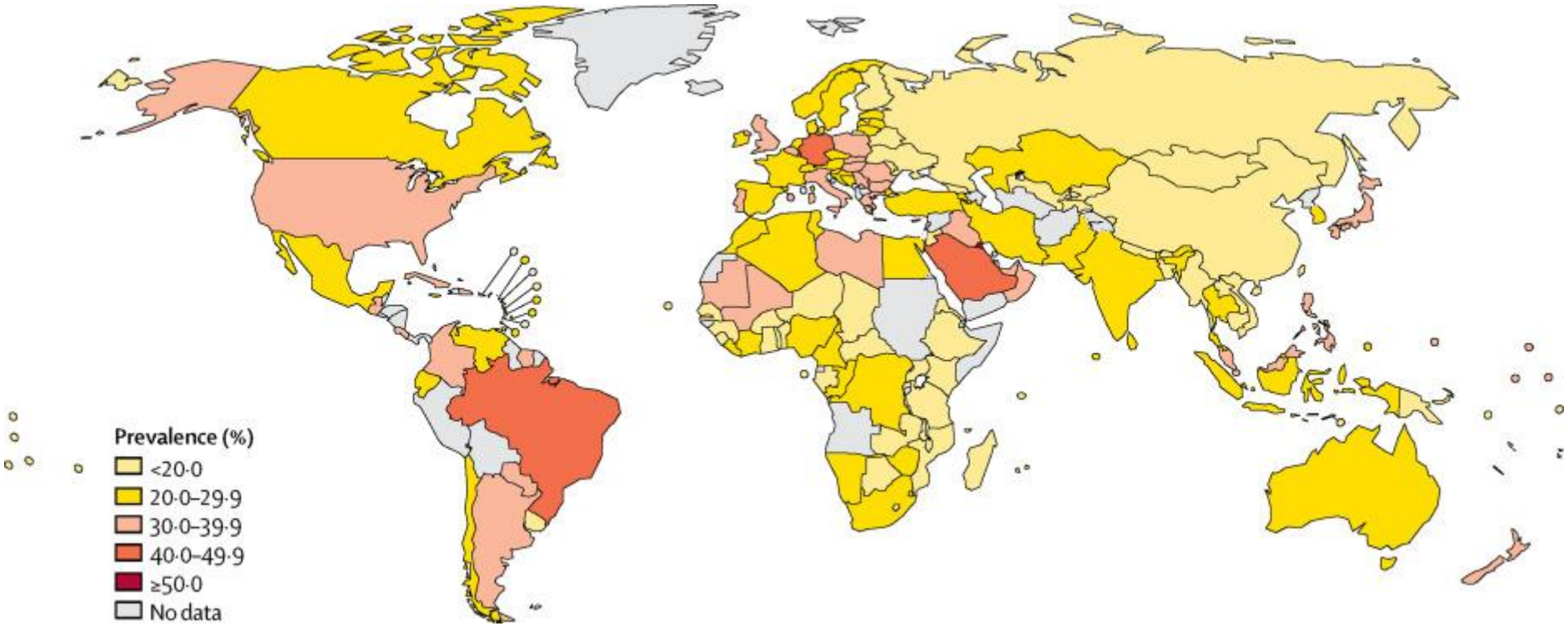
- Pohybová inaktivita u dospělé populace



WHO, 2015

Pohybová aktivita ve světě

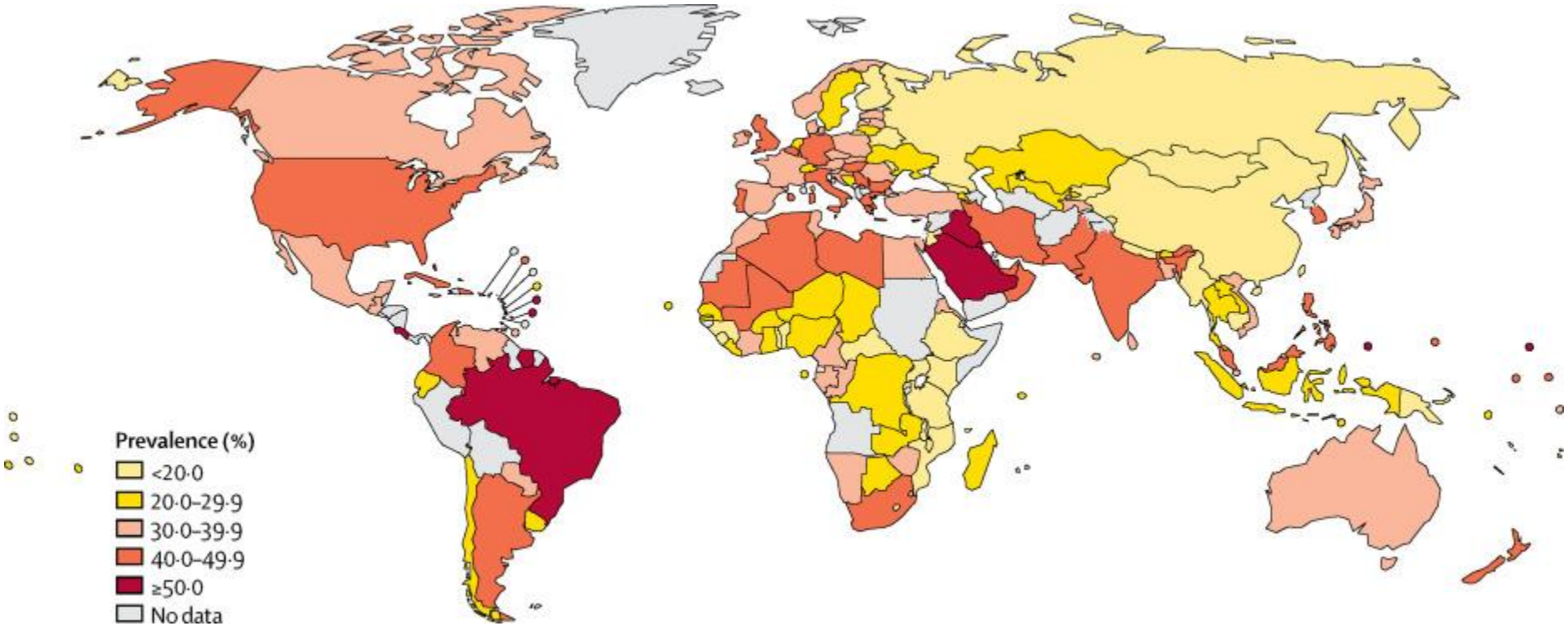
- Pohybová inaktivita u dospělých mužů



Guthold et al., 2016

Pohybová aktivita ve světě

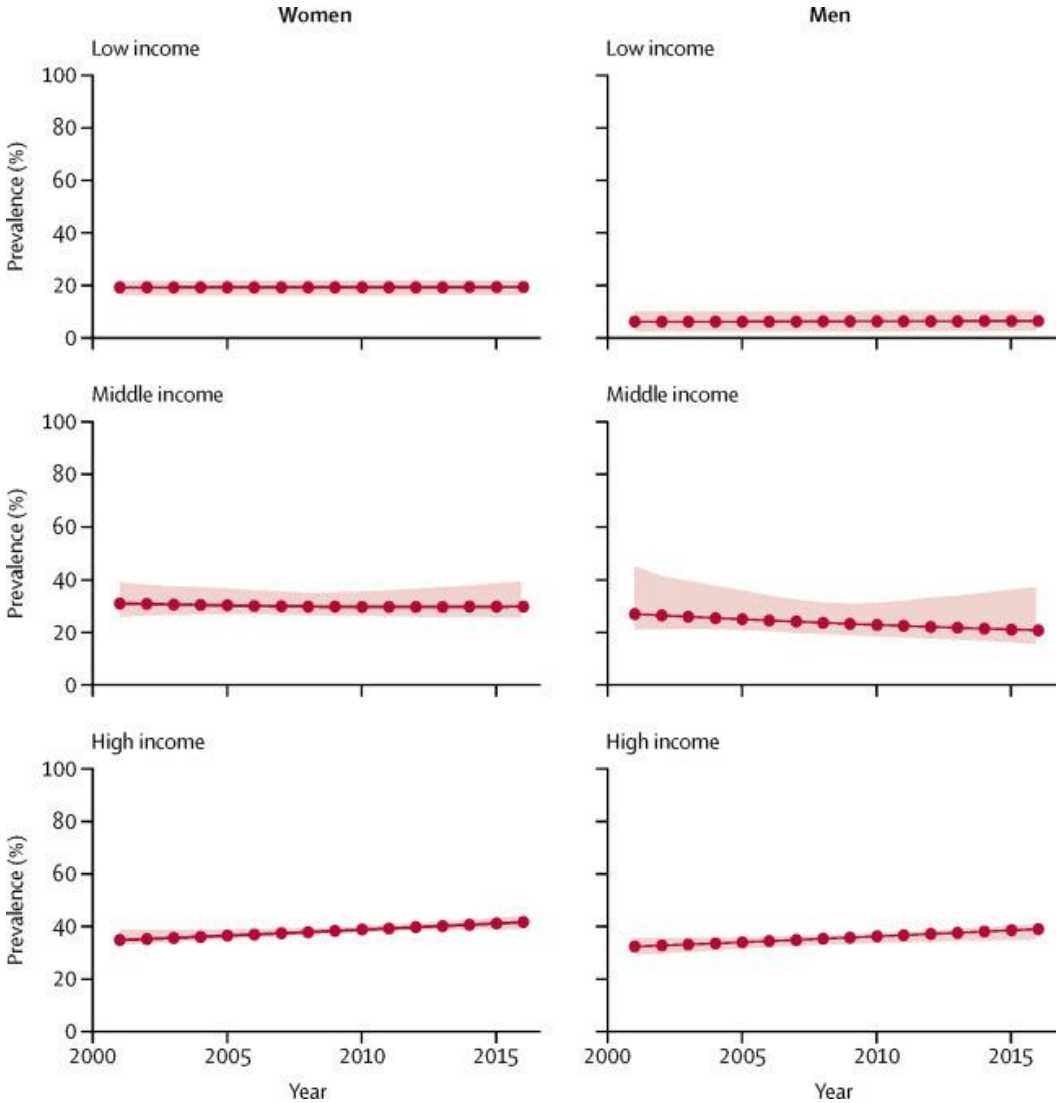
- Pohybová inaktivita u dospělých žen



Guthold et al., 2016

Pohybová aktivita ve světě

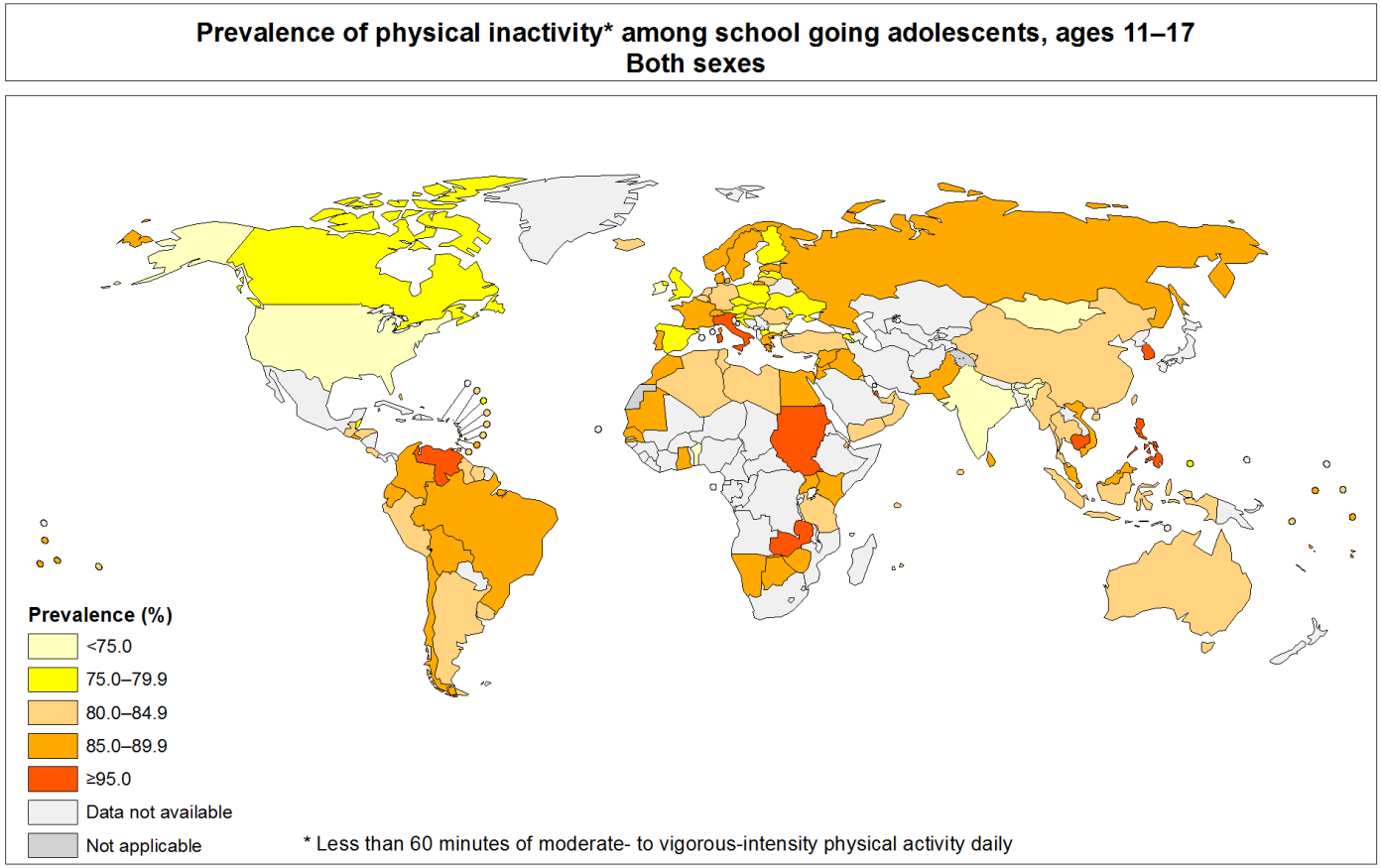
- Trendová data pohybové inaktivity
  - Nejméně rozvinuté země (stabilita)
  - Rozvojové země (pokles – důvod?)
  - Vyspělé země (zvýšení)



Guthold et al., 2016

Pohybová aktivita ve světě

- Pohybová inaktivita u adolescentů



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: Health Statistics and Information Systems (HSI)
World Health Organization

World Health Organization

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WHO, 2015

Pohybová aktivita ve světě

- Fakta o pohybové inaktivitě
  - 4. nejčastější faktorem globální úmrtnosti (po hypertenzi, kouření a vysoké hladině cukru v krvi)
  - 3,2 milionu úmrtí ročně = cca 9 000 úmrtí denně
  - Zvýšené riziko pro manifestaci chronických neinfekčních onemocnění (tzv. civilizačních onemocnění)
  - Zvýšené riziko pro rozvoj řady infekčních onemocnění

WHO, 2022

Pohybová aktivita ve světě

Original research

Physical inactivity and non-communicable disease burden in low-income, middle-income and high-income countries

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► Additional material is published online only. To view, please visit the journal online (http://dx.doi.org/10.1136/bjsports-2020-103640).

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[4]Laboratory of Epidemiology and Population Science, National Institute on Aging, Bethesda, Maryland, USA
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ABSTRACT
Objectives Physical inactivity is a risk factor for premature mortality and several non-communicable diseases. The purpose of this study was to estimate the global burden associated with physical inactivity, and to examine differences by country income and region.
Methods Population-level, prevalence-based population attributable risks (PAR) were calculated for 168 countries to estimate how much disease could be averted if physical inactivity were eliminated. We calculated PARs (percentage of cases attributable to inactivity) for all-cause mortality, cardiovascular disease mortality and non-communicable diseases including coronary heart disease, stroke, hypertension, type 2 diabetes, dementia, depression and cancers of the bladder, breast, colon, endometrium, oesophagus, stomach and kidney.
Results Globally, 7.2% and 7.6% of all-cause and cardiovascular disease deaths, respectively, are attributable to physical inactivity. The proportions of non-communicable diseases attributable to physical inactivity range from 1.6% for hypertension to 8.1% for dementia. There was an increasing gradient across income groups; PARs were more than double in high-income compared with low-income countries. However, 69% of total deaths and 74% of cardiovascular disease deaths associated with physical inactivity are occurring in middle-income countries, given their population size. Regional differences were also observed, with the PARs occurring in Latin America/Caribbean and high-income Western and Asia-Pacific countries, and the lowest burden occurring in Oceania and East/Southeast Asia.

to meet the current public health guidelines for physical activity.[4] Physical activity has the potential to contribute to achieving many of the United Nations' Sustainable Development Goals (SDGs) for 2030.[5] For example, increases in physical activity can contribute directly to SDG 3 (good health and well-being) by reducing premature mortality from non-communicable diseases.

As described above, the global impact of physical inactivity on all-cause mortality and a select number of non-communicable diseases (coronary heart disease, type 2 diabetes, breast cancer and colon cancer) has been described.[2] However, in the last decade, a large volume of research has clearly shown that physical inactivity impacts additional non-communicable diseases beyond these.[1]

There is great global variability in the prevalence and trends in physical inactivity. For example, the prevalence of physical inactivity in 2016 was more than double in high-income countries (36.8%) compared with low-income countries (16.2%), and the prevalence of physical inactivity increased in high-income countries between 2001 and 2016.[4] Large-scale shifts in non-communicable disease burden are also occurring, such that 80% of global non-communicable disease deaths are now occurring in low-income and middle-income countries.[6] Therefore, the purpose of this study was to estimate the current global non-communicable disease burden associated with physical inactivity, and to examine differences by geographical region and

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- Chronická neinfekční onemocnění
  - cca 8 % všech úmrtí se dá přičíst pohybové inaktivitě

Katzmarzyk et al., 2020

Pohybová aktivita ve světě

- Infekční onemocnění

Original research

Physical inactivity is associated with a higher risk for severe COVID-19 outcomes: a study in 48 440 adult patients

Robert Sallis ,[1] Deborah Rohm Young,[2] Sara Y Tartof,[2] James F Sallis,[3] Jeevan Sall,[1] Qiaowu Li,[2] Gary N Smith,[4] Deborah A Cohen[2]

► Additional supplemental material is published online only. To view, please visit the journal online (http://dx.doi.org/10.1136/bjsports-2021-104080).

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[4]Economics Department, Pomona College, Claremont,

ABSTRACT
Objectives To compare hospitalisation rates, intensive care unit (ICU) admissions and mortality for patients with COVID-19 who were consistently inactive, doing some activity or consistently meeting physical activity guidelines.
Methods We identified 48 440 adult patients with a COVID-19 diagnosis from 1 January 2020 to 21 October 2020, with at least three exercise vital sign measurements from 19 March 2018 to 18 March 2020. We linked each patient's self-reported physical activity category (consistently inactive=0–10 min/week, some activity=11–149 min/week, consistently meeting guidelines=150+ min/week) to the risk of hospitalisation, ICU admission and death after COVID-19

moderate to vigorous physical activity (MVPA).[3] Similar guidelines have been promoted in many countries based on strong evidence that regular PA results in a broad range of health benefits.[4–6] It is reasonable to expect regular PA may mitigate poor COVID-19 outcomes. It is well known that immune function improves with regular PA, and those who are regularly active have a lower incidence, intensity of symptoms and mortality from various viral infections.[7–9] Regular PA reduces the risk of systemic inflammation, which is a main contributor to lung damage caused by COVID-19.[10] Additionally, exercise benefits cardiovascular health, increases lung capacity and muscle strength, and improves mental health.[3 11] These are mechanisms by which regular

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Table 2 Hospitalisations, ICU admissions and deaths among patients with COVID-19

	Consistently inactive (n=6984)	Some activity (n=38 338)	Consistently meeting PA guidelines (n=3118)	Total (n=48 440)
Hospitalisation	732 (10.5%)	3405 (8.9%)	99 (3.2%)	4236 (8.7%)
Admitted to ICU	195 (2.8%)	972 (2.5%)	32 (1%)	1199 (2.5%)
Deceased	170 (2.4%)	590 (1.5%)	11 (0.4%)	771 (1.6%)

ICU, intensive care unit; PA, physical activity.

1.32), admission to the ICU (OR 1.10; 95% CI 0.93 to 1.29) and death (OR 1.32; 95% CI 1.09 to 1.60) due to

levels of PA were generally insufficient,[13] pandemic control measures have likely had the unintended

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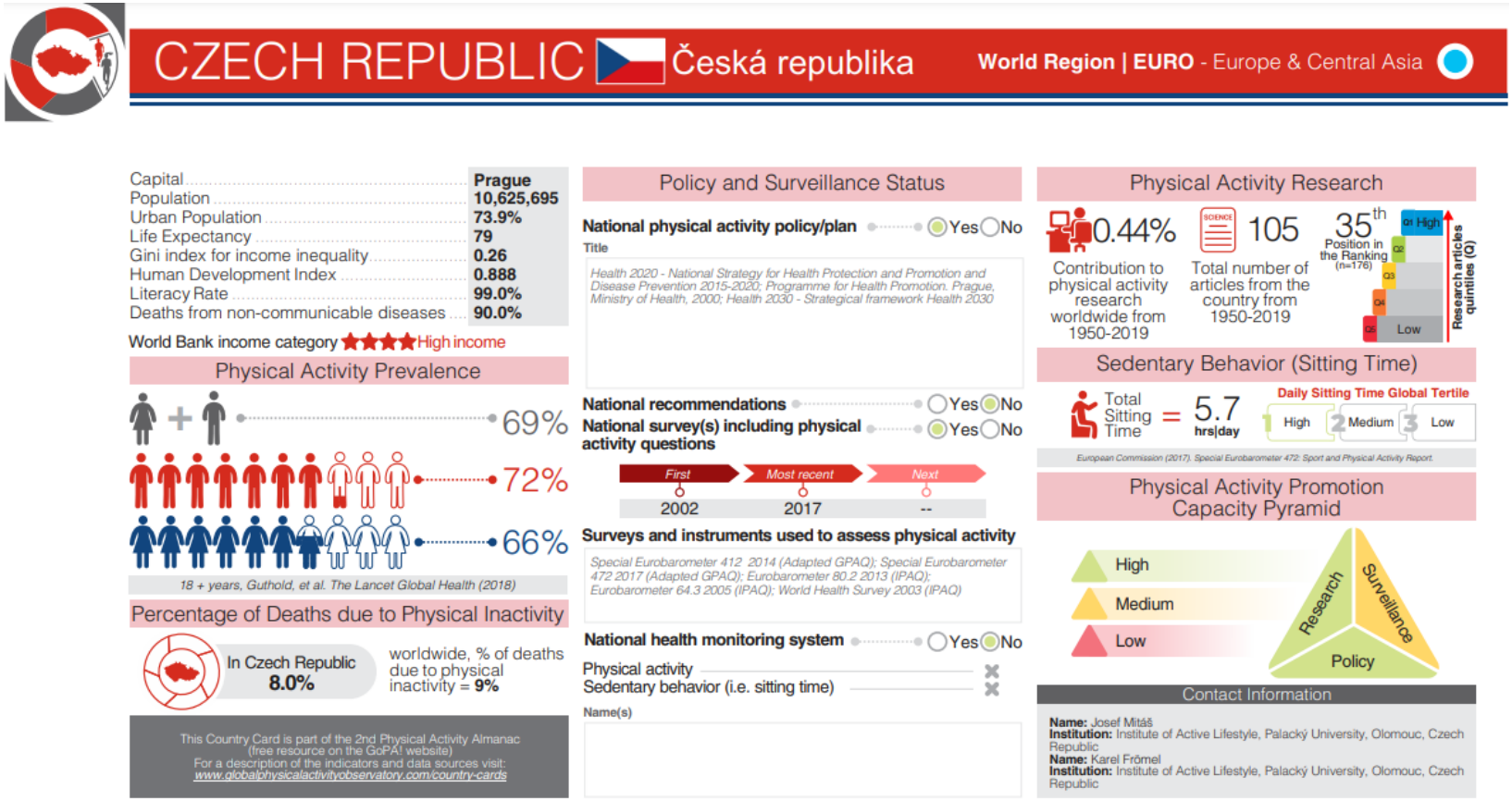
Katzmarzyk et al., 2020

Pohybová aktivita v Česku

- Pohybová inaktivita u dospělé populace



GoPA, 2020

Pohybová aktivita v Česku

- Pohybová aktivita u českých dětí a mládeže

22 % → 58 %

https://activehealthykids.upol.cz/

Intervence

- **Jak negativní situaci a zhoršující se trend změnit?**

Intervence

- Systémový přístup je klíčový!

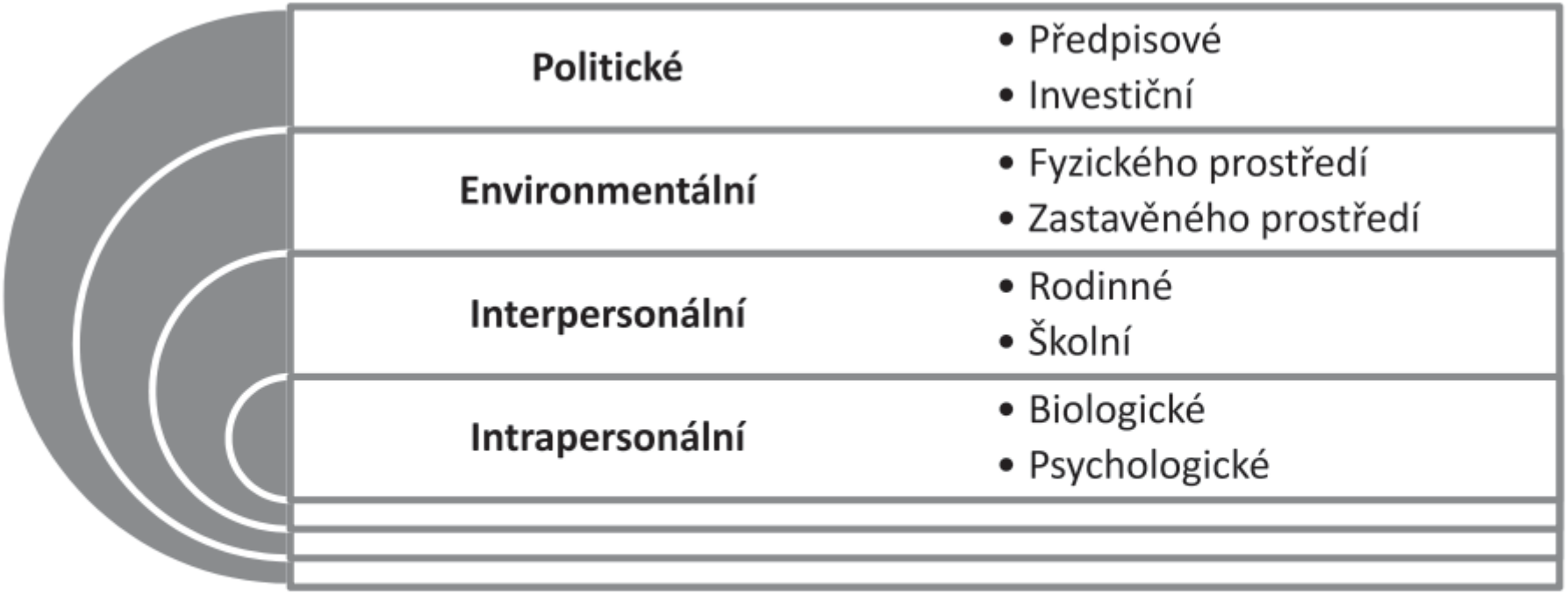
Snížení globální prevalence pohybové inaktivity
o **15 %** do roku **2030**

Podpora PA vyžaduje systémový přístup

Neexistuje jedno politické řešení

Intervence

- Systémový přístup na více úrovních



Obrázek 5. *Zjednodušený ekologický model (aspekty ovlivňující pohybovou aktivitu)*

Zdroj: Upraveno podle Giles-Corti et al. (2005) a Sallise et al. (2006)

Intervence

- Intrapersonální úroveň

Intervence

- Interpersonální úroveň

Intervence

- Environmentální úroveň

Intervence

- Politická úroveň

NATIONAL Physical Activity Plan

Příklady dobré praxe

- Walking Maps

Příklady dobré praxe

- Play Streets

https://www.youtube.com/watch?v=O3j5tP8z1Xg

Příklady dobré praxe

- Bogota's Sunday Ciclovía

https://www.youtube.com/watch?v=VTmr_gPtCdk

Příklady dobré praxe

http://wp.ride2scool.org/

Výzva Do školy na kole proměňuje okolí škol a přístup k udržitelné dopravě

11. 3. 2019

Od 1. března 2019 běží registrace do druhého ročníku výzvy Do školy na kole, která je otevřena studentům od 13 let. Zapojit se tedy mohou základní, střední i vysoké školy. Účastníkem výzvy se může stát kdokoliv, kdo má chuť ukázat, že se dokáže po dobu května dopravovat do školy udržitelně. Není potřeba pouze jezdit na kole. Přihlášení mohou i chodit nebo běhat. Chůzi, běh či jízdu na kole lze během měsíce kombinovat.

Příklady dobré praxe

https://www.treneriveskole.cz/
https://www.youtube.com/watch?v=ujulLtTTN88

Děkuji za pozornost

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