



**Ministry of Finance
of the Slovak Republic**
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Innovations in Slovak Health Care

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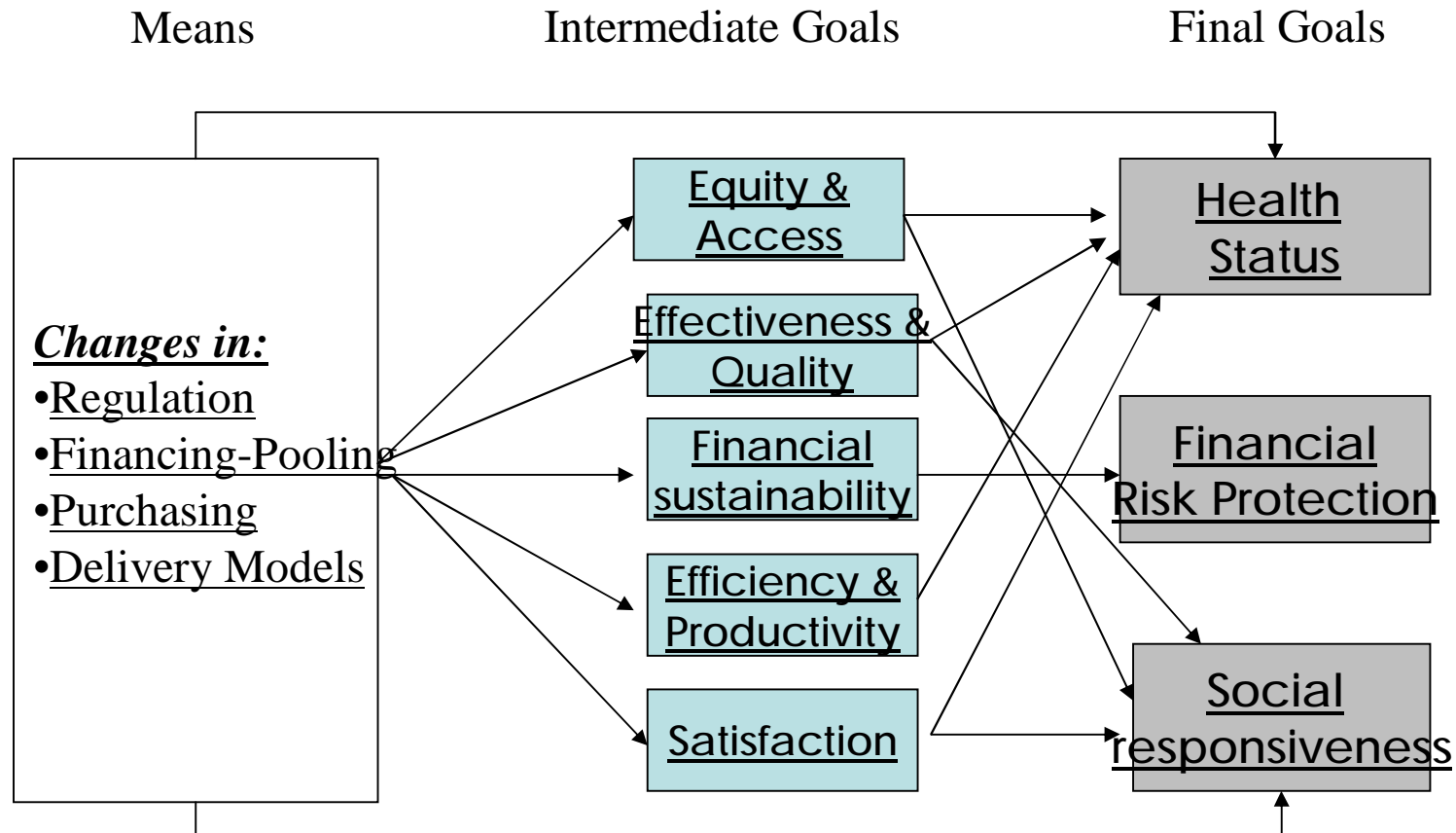


Outline

- n **Slovak background in health care innovations**
- n **“Health as investment”**
- n **Cost-effectiveness vs. innovation in drug policy in Slovakia**

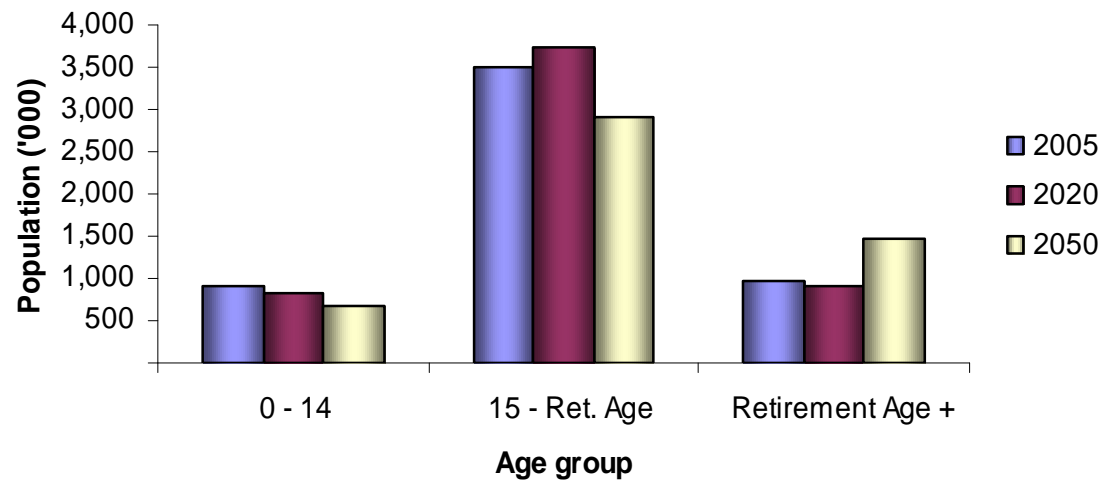
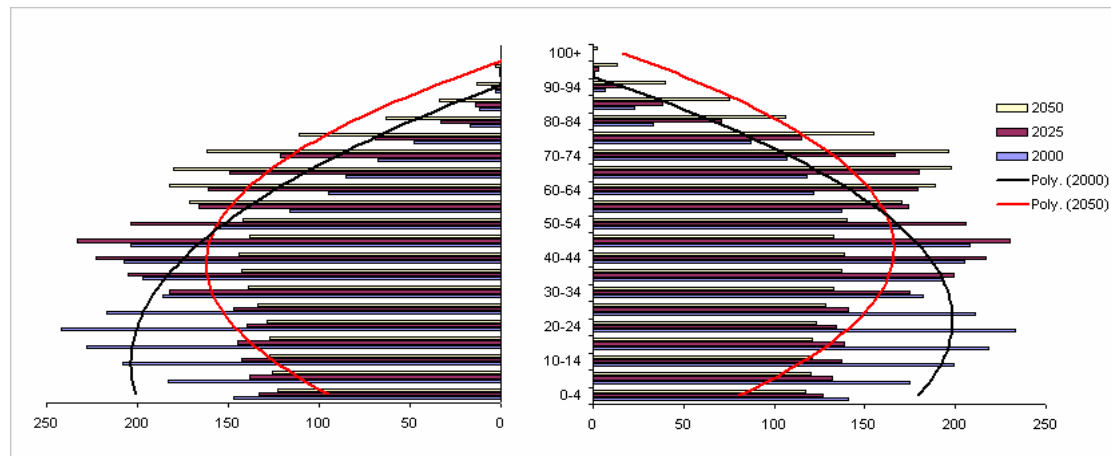


Health Systems: Conceptual Framework





Aging population



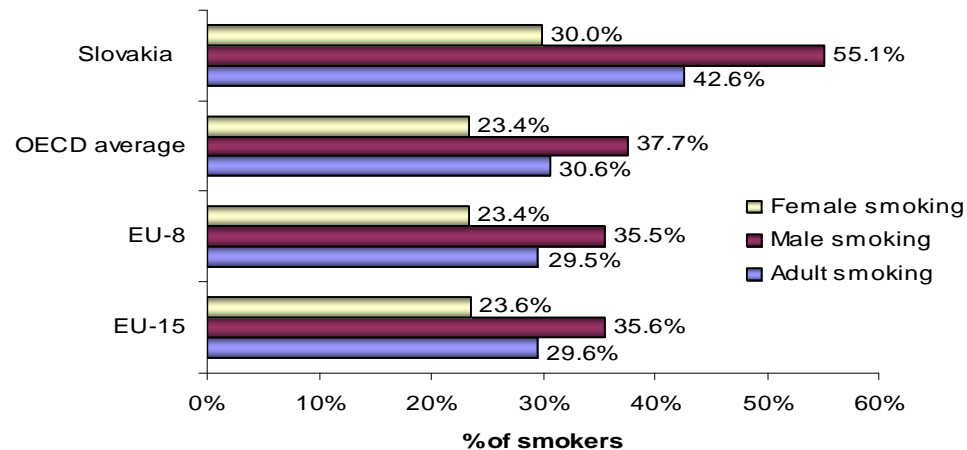
Source: FPI MF SR

- Profound impact on the revenue side (increasing dependency ratios)
- Eased by raising pension age
- Lower impact on expenditures than usually presented but significant impact on utilization
- Deep impact on the structure of the health care delivery (LTC etc.)
- Trends only important in the long run (15+ years)



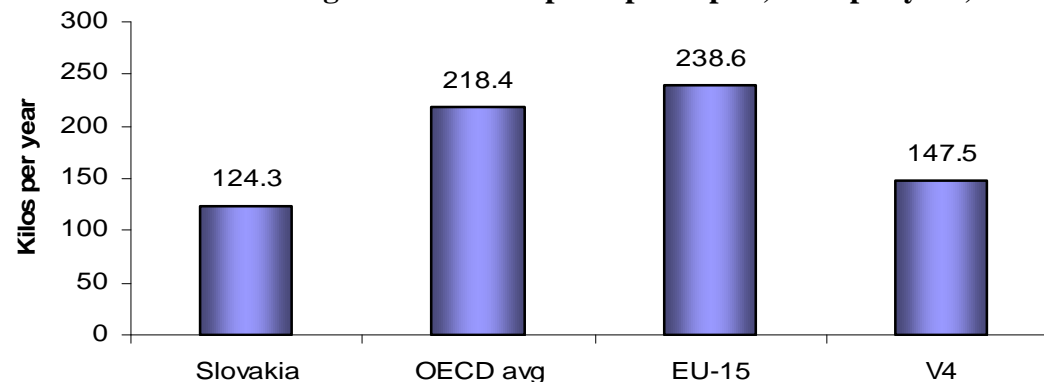
Troublesome lifestyles

Smoking in international comparison



- Lifestyle contributing up to 50% to the health status, according to some estimates
- Among the most important, smoking more prevalent than elsewhere
- Alcohol consumption and diet also unsatisfactory

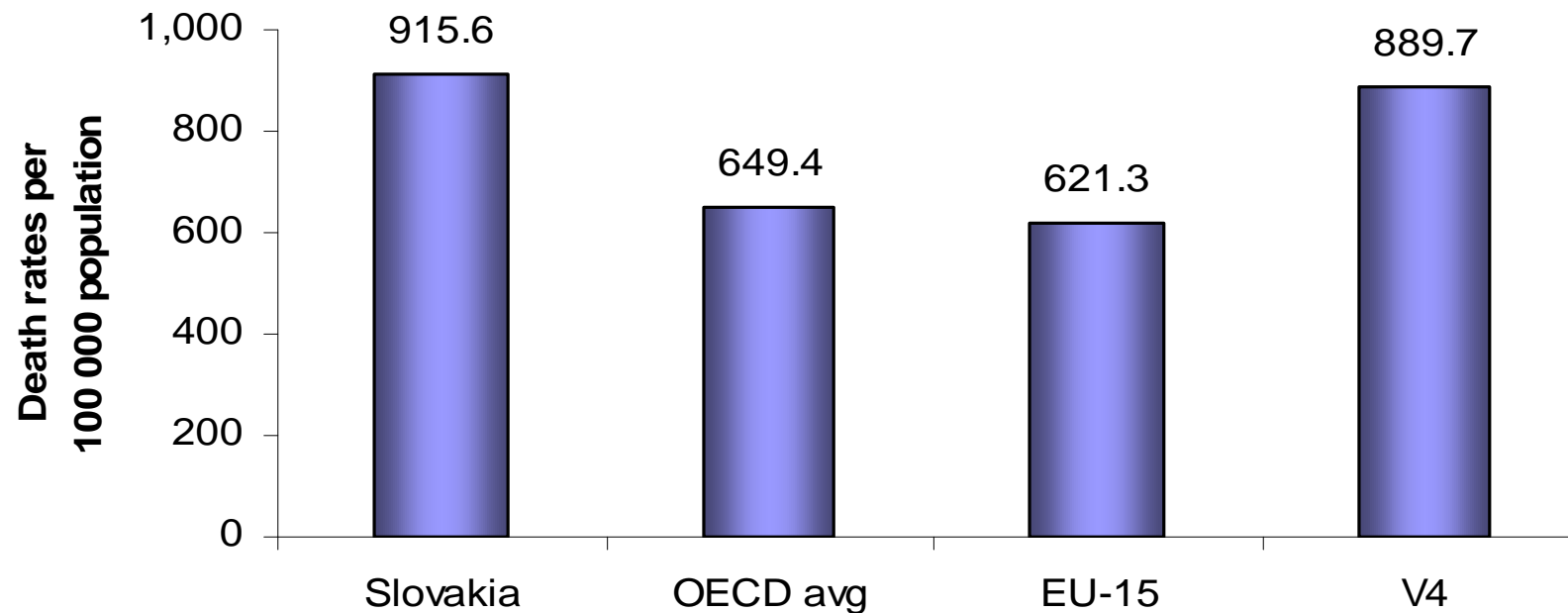
Fruits and vegetables consumption per capita, kilos per year, 2002





Mortality rates significantly higher than OECD and EU averages

Mortality, all causes, age-standardized death rates per 100 000 population, 2002



Source: OECD Health data 2005



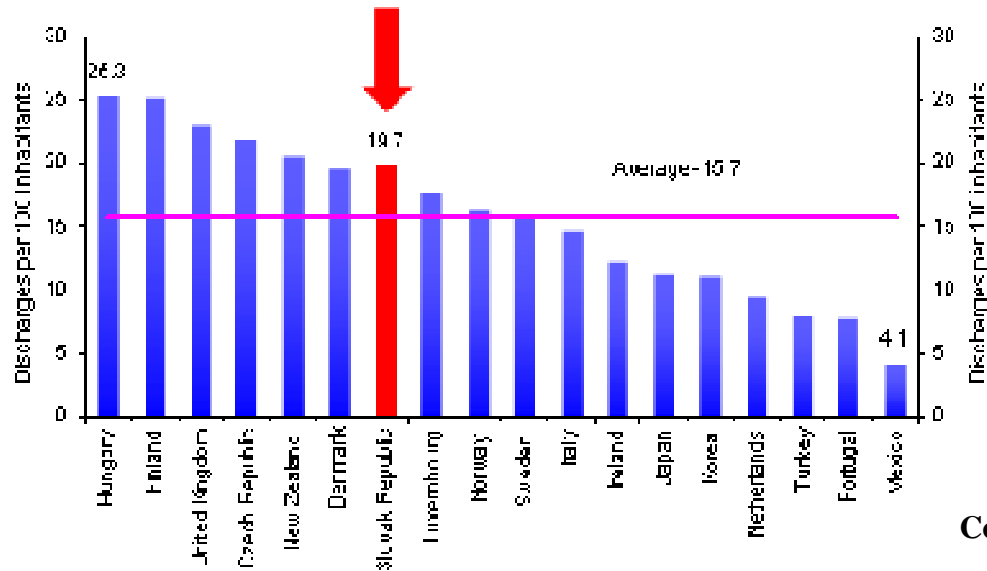
Catching up

- n Slovakia will catch-up with the rich countries over time**
- n Some of the process will be automatic and cause directly or indirectly by economic growth and higher standards of living**
- n However, medical and other health-enhancing technologies will have to develop to the EU/OECD standard as well**



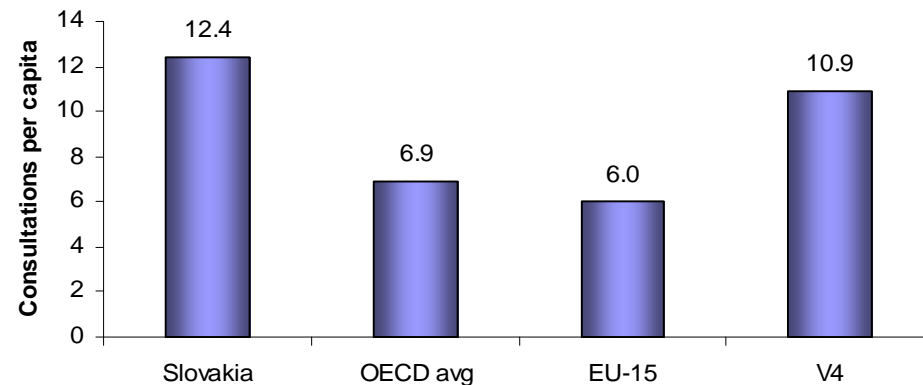
Excess inpatient and outpatient demand

Discharges per 100 inhabitants



Source: HICs database

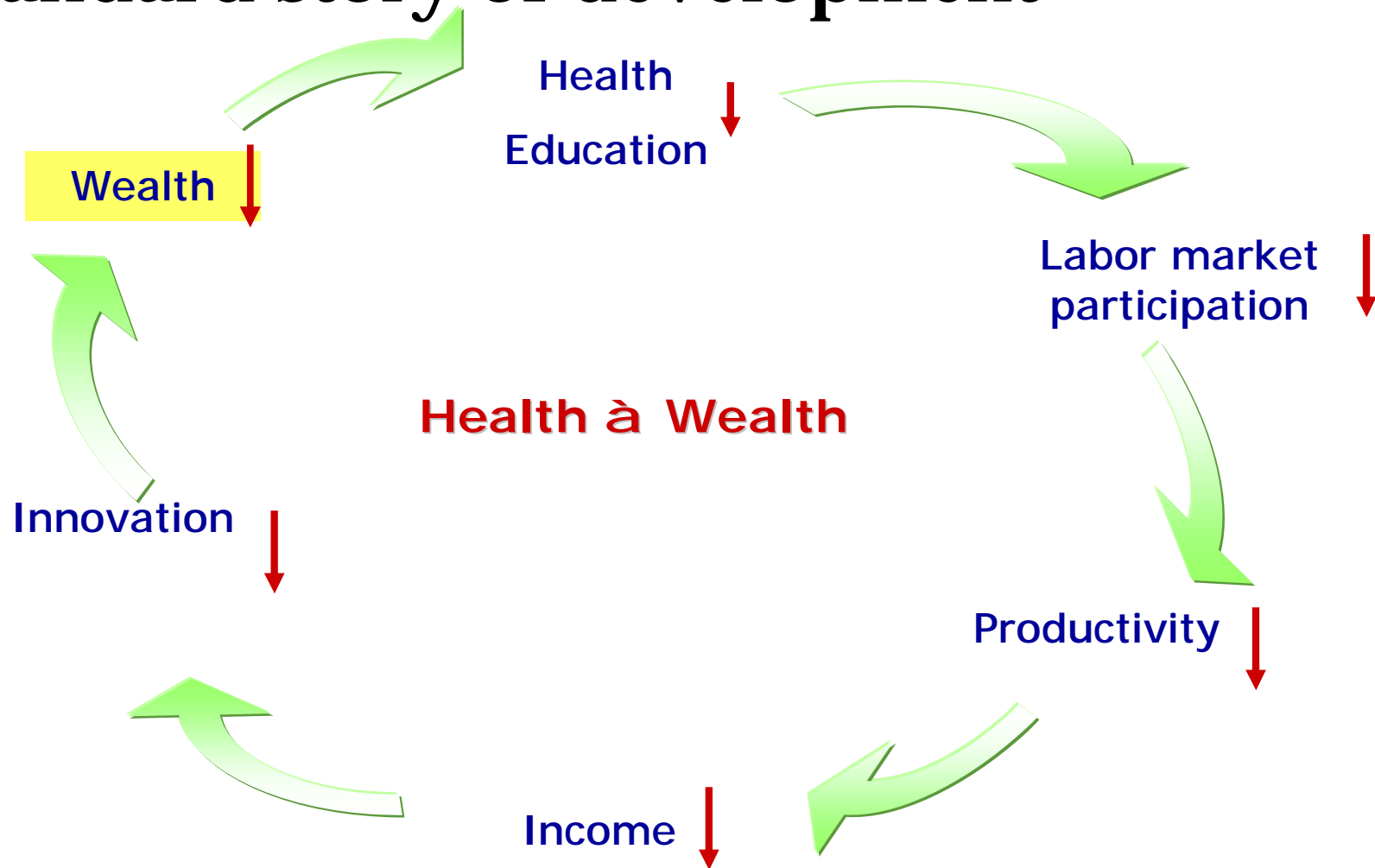
Consultations with doctors, per capita, 2003



Source: OECD health data 2005



Standard story of development





Standard story of proponents – “health as investment, not expenditure

- n Each additional year of increase in life expectancy increases economic output by 4%, even after controlling for work experience and education (Bloom et al., 2004).
- n The vicious cycle of low investment and high mortality leads to ‘development traps’ and accounts for 42% of all cross-country variation in economic growth (Chakraborty, 2004).
- n Increases in longevity generate a higher savings rate at every age, as individuals are encouraged to save for their retirement income.
- n Reductions in mortality and morbidity and the consequent increase in longevity raise the rate of return for investments in education, encourage increased educational investment and in the long run encourage greater economic output
- n HIV/AIDS epidemic has a pronounced – measurable – macroeconomic impact in sub-Saharan Africa

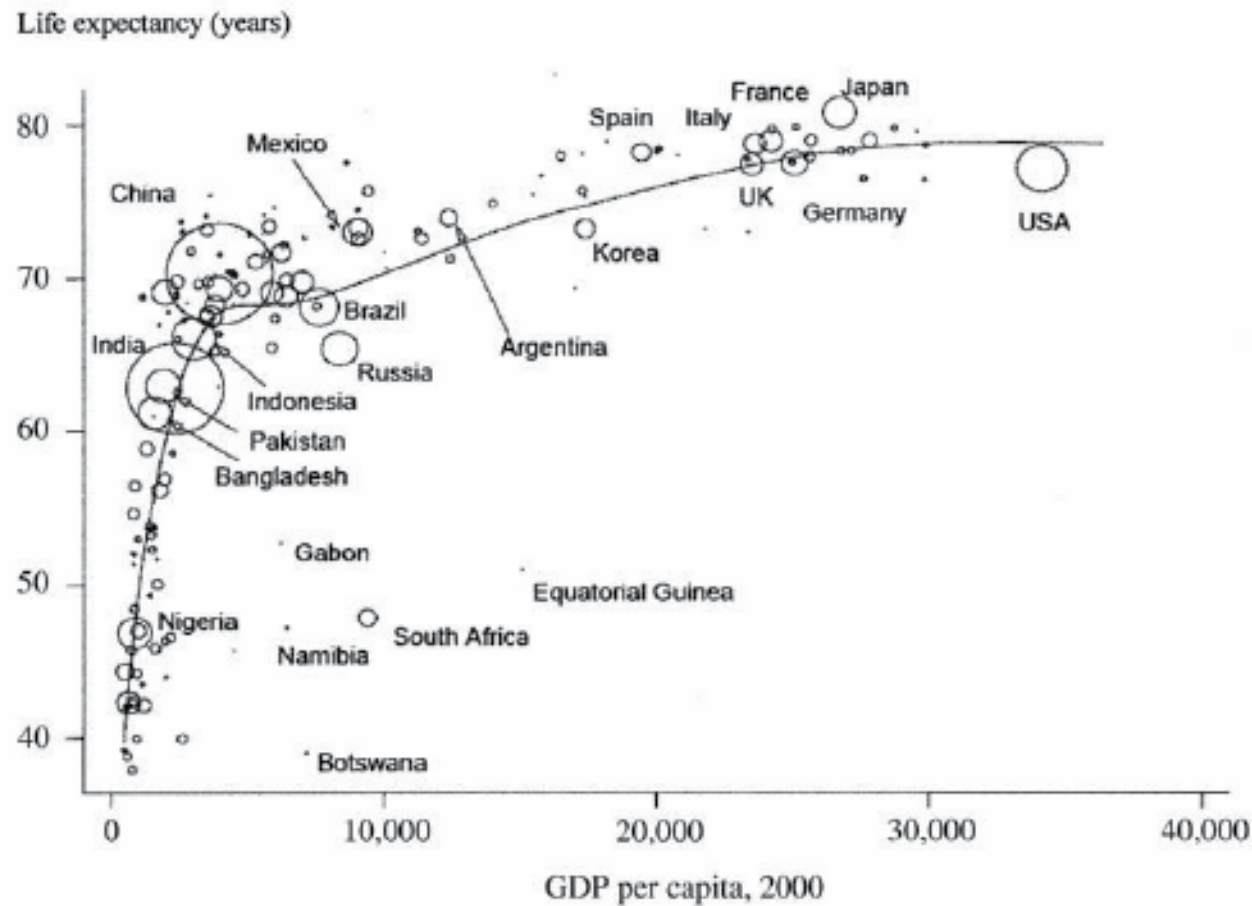


True, but...

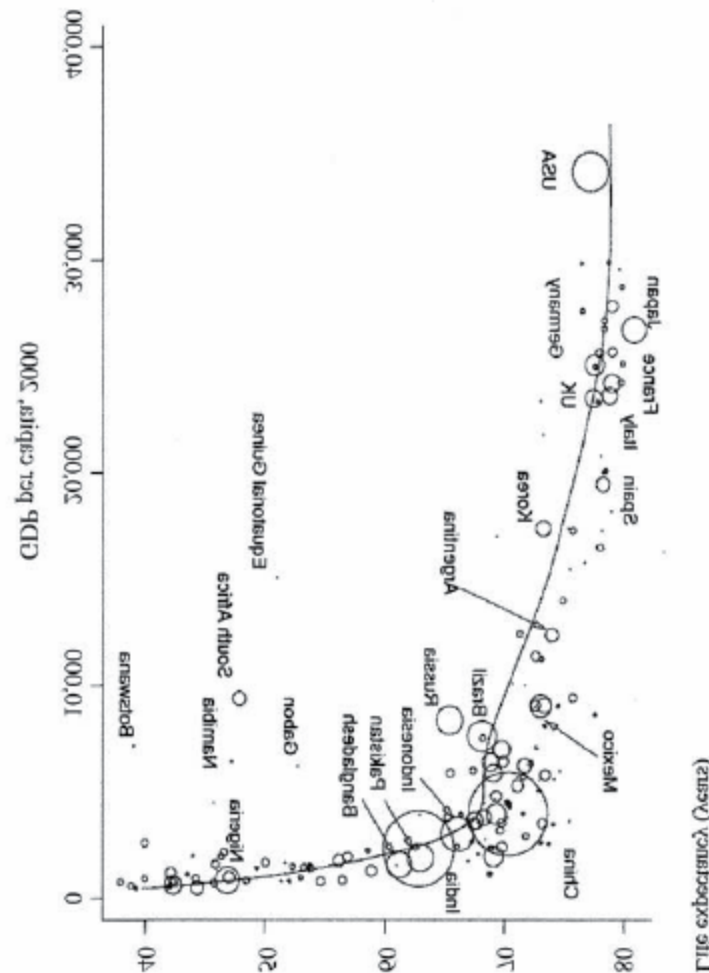
- n Most of the studies conducted in and relevant for the poor countries, rather than upper-middle income ones (Slovakia)**
- n Some of the interventions does not mean all the interventions**
- n Need to include non-monetary (QoL), or even non-economic (status) benefits with problematic valuation to justify many of them**
- n Some interventions pass (some fail) standard cost-benefit analysis**
- n Health (care) is a durable good, but difficult to justify on a narrowly economic grounds**



Wealth \rightarrow health?



Health → wealth?



- n Excluded by Preston and Summers, 1993?
- n Health is probably not the best determinant of economic growth in developed nations, compared to e. g. education or physical infrastructure
- n However, living in good health is valuable in itself, therefore justifying expenditures without resorting to flawed “investment” arguments



Not on the technology frontier

- n Average citation index in Slovakia is 0.97, compared to 1.77 in Czech republic and 3.98 in EU-15**
 - w Not likely to be the source of major medical innovation**
- n Innovative practices will arrive as a part of technology transfer, rather than original innovation**
 - w With an exception of process innovation in clinical practice?**
- n Policy should reflect this – focus on early identification of worthwhile innovations and effective mechanism of their dissemination**
- n Let's not pretend we will contribute much to the global innovation processes**



Example – drug policy

- n** Already a formalized system of innovation adoption when compared to e. g. major technology purchase
- n** Push towards increased cost-effectiveness
 - w** Reference pricing, mandatory cost-effectiveness studies
- n** The focus of cost control mechanisms on supply side and proxy supply side controls, as demand side control measures have been shown to be less effective and lead to the barriers to access (Kiss et al, 2007)
- n** The issues of equity, access, and dynamic concerns about pharmaceutical R&D should be explicitly taken into account



Example – drug policy (2)

- n Cannot dampen much global or local innovation
 - w Small country, no major innovations locally
- n Can theoretically lead to later adoption of new drugs
- n More important to ensure proper dissemination of available innovation throughout the clinical practice
- n Clinical – binding - protocols on the proper drug use
- n Prioritization based on cost-effectiveness and other explicit criteria
 - w Burden of disease (onco, cardio)
 - w Protection of the vulnerable groups
 - w Access across regions and levels of care