Health Human Resources

for an

Aging Population

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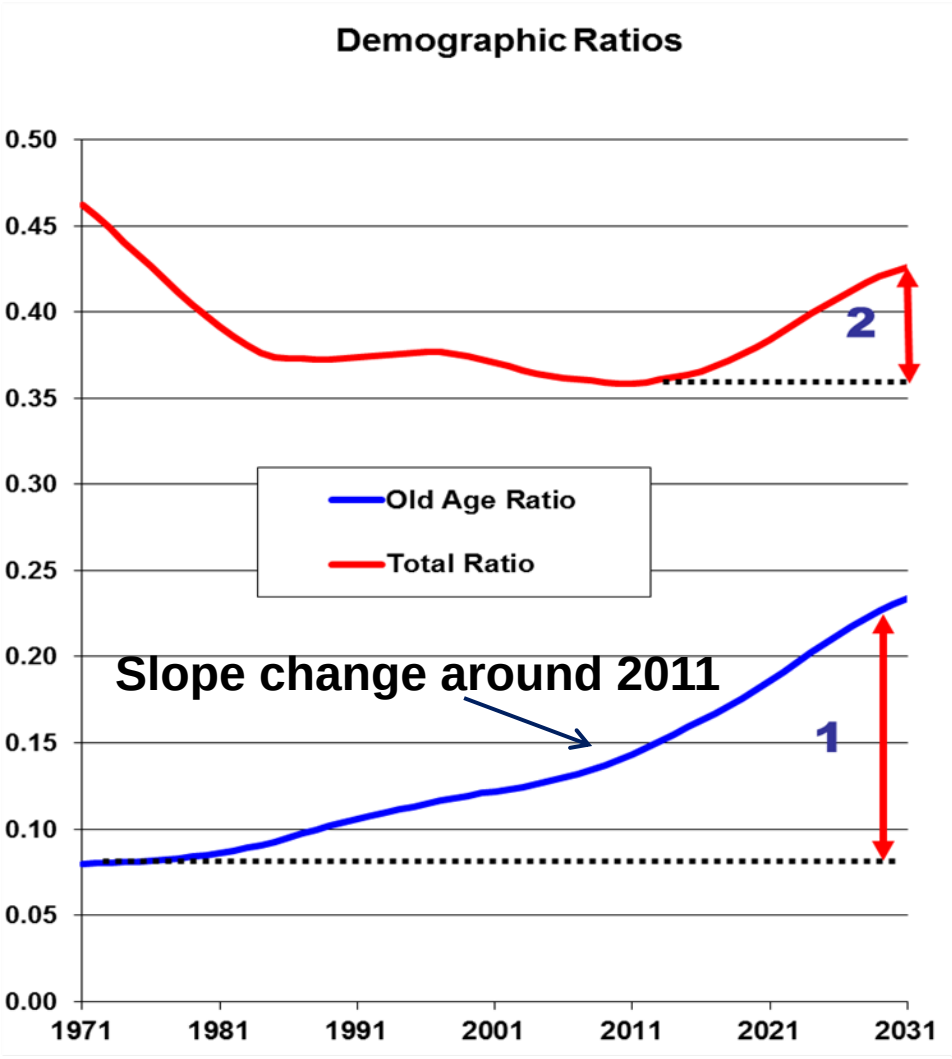
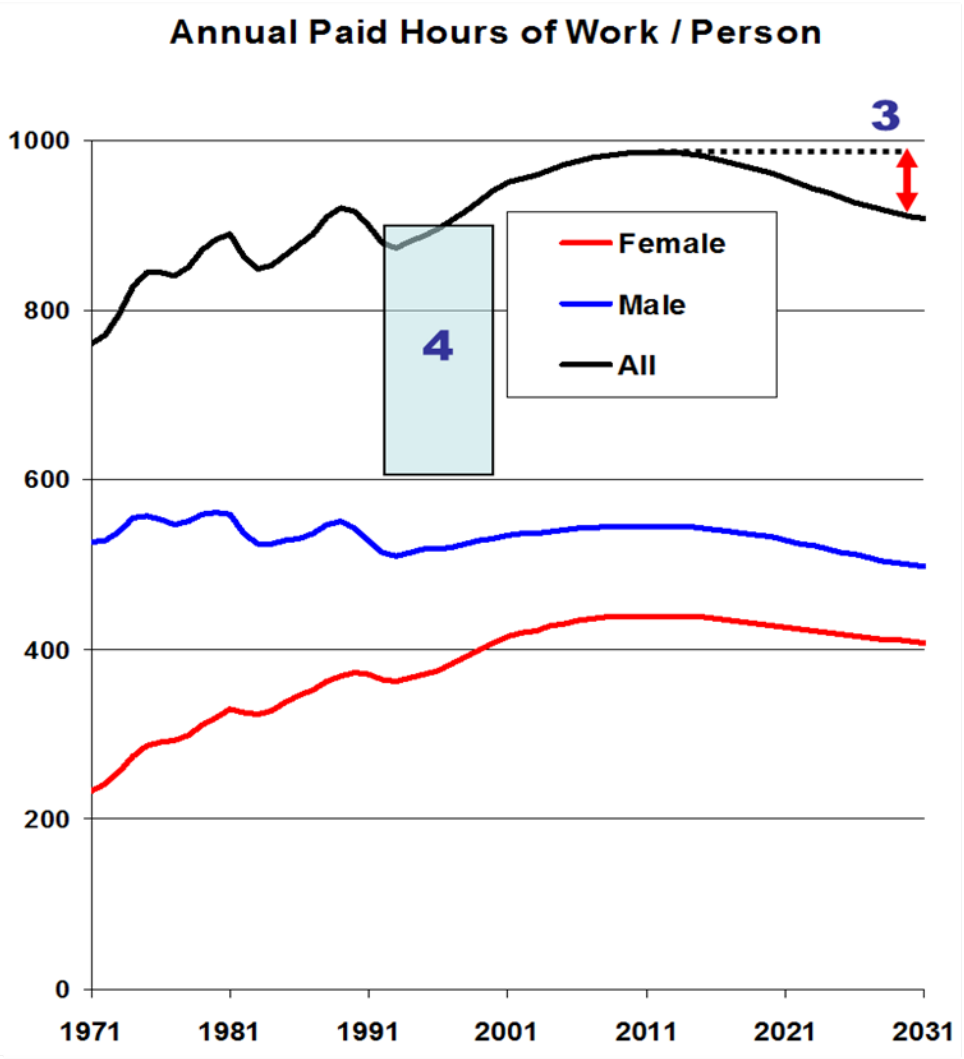
Background 1 – Canadian Medicare's Best/Easiest Years: NOW!

- Age-related service demand is low
  - Leading edge of baby boom just turning 65 and still healthy
  - Baby boom echo just entering childbearing years
- Age-related tax base is large
  - Baby boomers are still of working age and paying taxes





Source: Michael Wolfson, using LifePaths model, paper presented at UBC-CHSPR conference, Feb, 2011

So, if trouble delivering healthcare services and paying the bills now, ….

The future will likely have:

1) A higher "age 65+" dependency ratio
   - But, by standards of last few decades, the aging demographic is not an unmanageable problem

and

2) Fewer worker-hours generating tax revenue
   - Perhaps the more serious political problem
   - Fiscal issues in healthcare are real, but not unmanageable
     - Though they do need active management

Background 2 – Policymaking for (management of) service delivery in healthcare is a VERY hard problem

- I don't think a "first best" solution exists
- "Second best" implies that for global efficiency the best policies recognize
  - Insoluble problems in a first area may imply accommodations in a second area
  - Accommodations may not look good from second area's perspective
- Need global (system-wide) perspective

Selected Issues

1) Health is often “high stakes”
2) Asymmetric information, moral hazard, free rider, etc., problems are ubiquitous
3) Single payer system has few means to control either costs or quality
   - Of course, US multi-payer system is worse; our “second best” approach is problematic but perhaps among the best possible
   - Physicians are “gatekeepers” of service provision, and thereby of their own incomes
     - Obvious conflict of interest

4) Health professional unions, regulatory colleges, and other representative and advocacy groups are very strong and influential players

5) Citizens (potential patients) have diverse preferences that **cannot all** be met in our "single threshold" model
   - Some want to pay more for higher quality (greater quantity of) service
   - Others want less for less
   - Disagreements over degree of redistribution

6) Canada has not, thus far, had the courage to build a healthcare **system**

- Have health systems for: payment and regulation, **but not care**
- Though we are perhaps starting to build one from necessity (and cost pressure)

Main Event: "Pure" aging & HHR - effect exists, but is manageable

- Example: predicted physician requirements based on OHIP billing (Denton, Gafni & Spencer, 2009)
  - Base year: 2001
    - Hold services provided per physician fixed
    - Hold services rec'd per population "age-sex cell" fixed
  - Allow demographics to "evolve" by adjusting number of people in each age-sex cell
  - Implies only two sources of service growth
    - Age-sex demographics (aging after 2011)
    - Population growth

Year	Index actual MDs	Index MDs req'd	Growth rates to meet 2001 service levels (% per decade)		
			Tot	Pop Growth	Pop Aging
1981	65.3	68.4	--	--	--
1991	90.0	84.8	24.0	18.8	5.2
2001	100.0	100.0	17.9	14.3	3.6
Projected Population					
2011	116.4	119.8	19.8	13.6	6.2
2021	--	141.3	18.0	11.2	6.8
2031	--	161.7	14.4	8.6	5.8

Source: Denton, Gafni & Spencer (2009); CIHI; Statistics Canada

Caveat: MDs actual for Canada, Req'd and growth is for Ontario

- Of course, most would argue that (base year) **2001 had shortages**
- Using DGS approach and asking how many more MDs would be req'd to deliver 1991 services in 2001 suggests a 10% shortage
- Kralji (2001) suggests a 6% shortage in 2001
- Something in the range of 6% seems sensible since most argue excess supply in 1991
- Need to **both** solve shortage and grow, but **most of growth is pop**

But gross numbers miss a lot! Service requirements by specialty

- Some large changes in which physician specialties will be required for an aging population
  - Sample of projected range of outcomes

Specialty	2001	2011	2031
GP/FP	100.0	117.9	154.8
Laboratory	100.0	125.2	174.5
Ophthalmology	100.0	126.0	205.5
Pediatrics	100.0	100.2	109.5
Overall	100.0	119.8	161.7

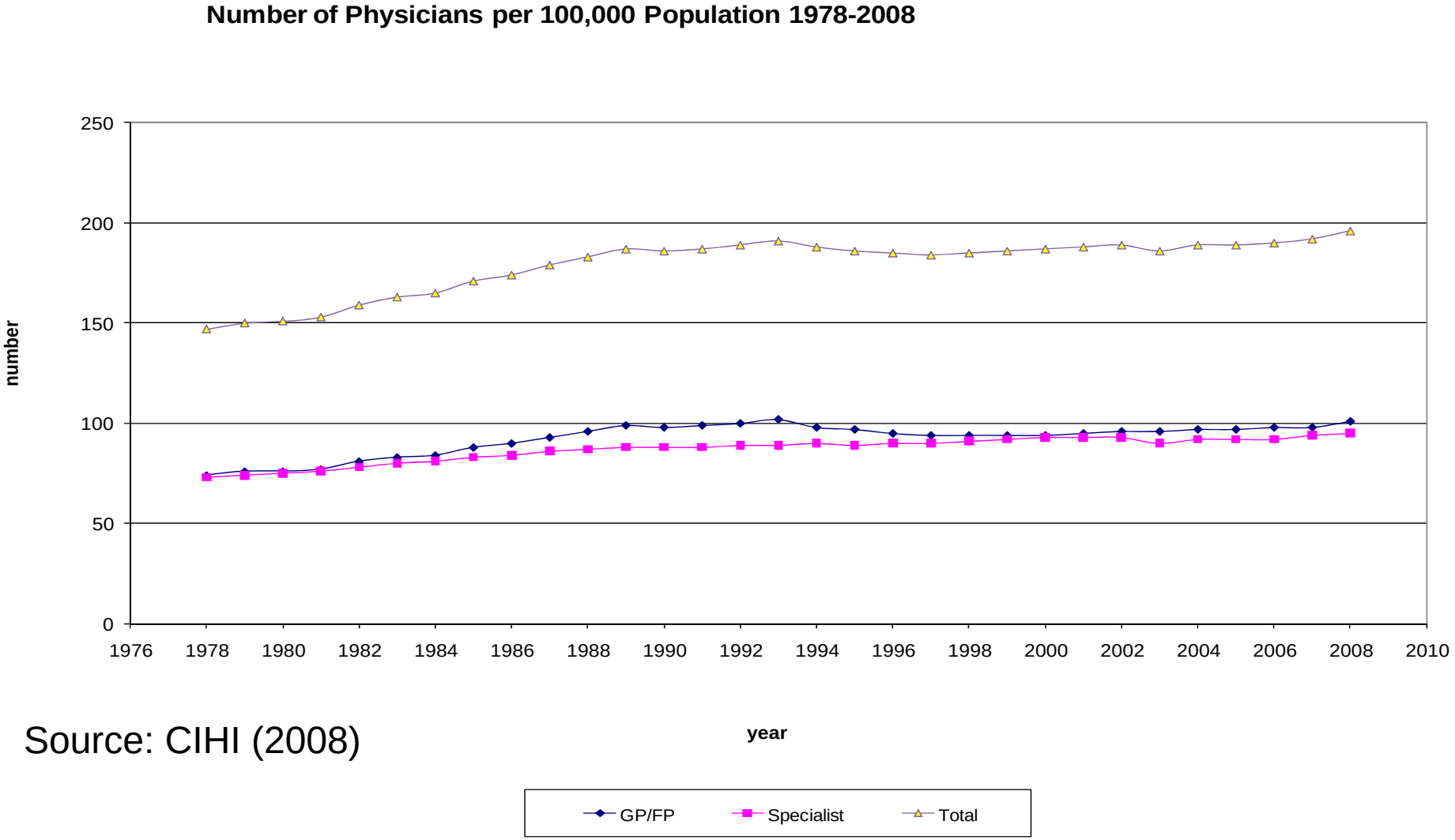
Source: Denton, Gafni & Spencer (2009)

However, counterfactual "pure" aging effect ignores many trends; example

- Physicians are working slightly fewer hours
  - ~3.8% decline 1991-06 (avg 47.5 hrs/wk in 2006)
  - Taking 1991 gender composition as base
    - 48.5% of decline due to male hours reduction
    - 3.4% due to female hours reduction
    - 48.1% due to increased % females (composition effect)
      - Females on average work 7.5 fewer hours/week in 2006
- Modest, but implies need ~1% extra MDs every 4 years to make up for hours reduction (holding all else constant)
  - (Calculations by the author using census data)

Since 1991 MD/pop about constant

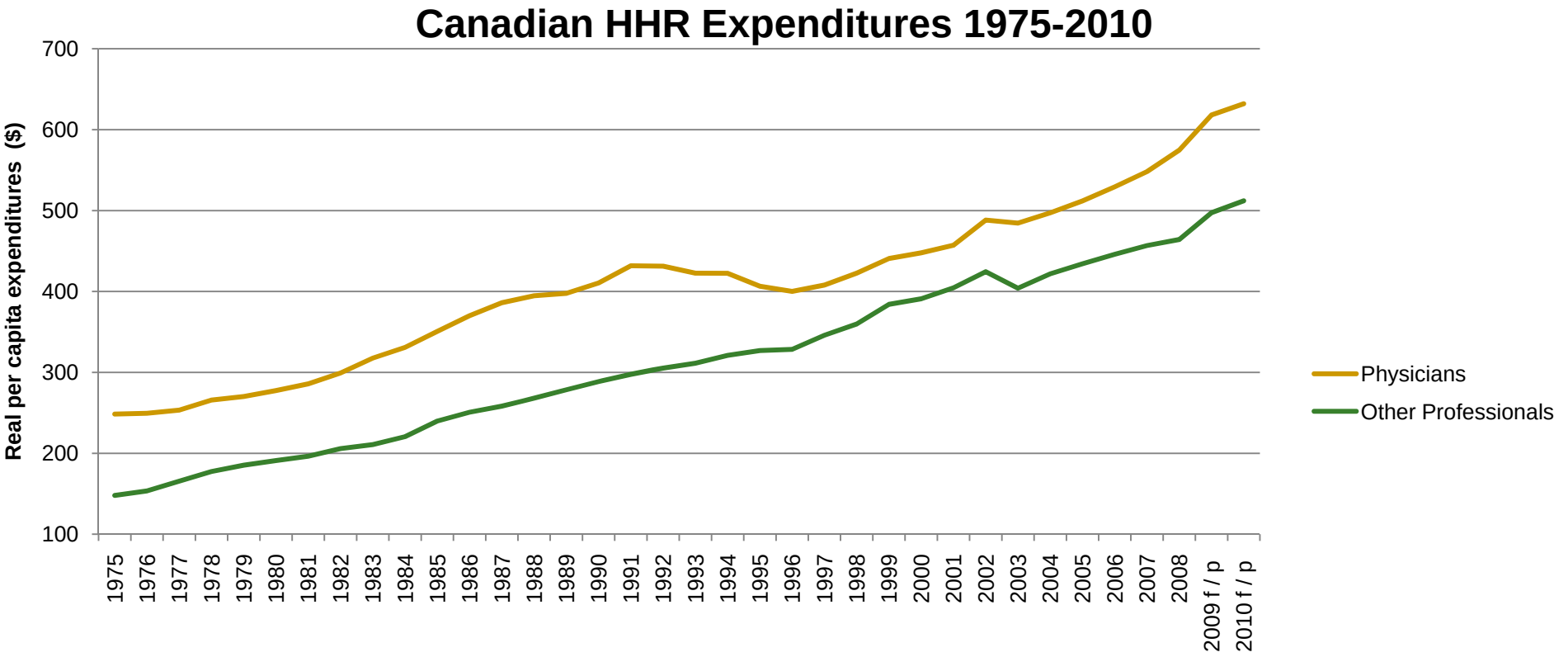
(Early 1990s cutbacks mostly about stopping growth of, not reducing, MD/pop)



Source: CIHI (2008)

Although MD/pop constant, and hours/MD declined, real per capita expenditures increased (except in early to mid-1990s)

- Key issues go well beyond the number of MDs



Source: CIHI (2010, table C.1.3) and Statistics Canada CPI data

Many cost and service pressures are NOT about "pure" aging

- Changing practice patterns (incl. technology)
- Changing demand
  - Increasing wealth
    - Health is – in economic jargon – a "normal" good
      - As opposed to inferior or luxury good
    - As wealth increases expect to spend higher % of income on normal goods
    - i.e., health should grow as % of GDP as real GDP increases (holding prices constant)
  - Cohort effects
    - Baby boom cohorts may demand more services than older (and younger?) cohorts when the same age

Going forward
Need management & policy solutions
Maybe even a "healthcare system"

- These will be "second best"
- Theory of second best implies that to serve society we need to consider the overall picture as opposed to element by element (silo by silo) planning/policymaking
- Need to understand and plan for interactions among various participants
- Many changes in progress

Selected current HHR changes

- Increasing number of health professionals
  - esp. nurses and physicians
- Primary care reform
- Interprofessional care
- Altering structure of physician remuneration
- Broadening scope of practice of selected non-physician health professions
- Creating new regulated health professions
- Forward looking HHR education/training
- Bundled or diagnosis-related payments

Focus on 2 selected changes:
1. Restructuring Physician Remuneration

- Major changes in a few provinces,
  esp. Ontario
  - Group practices
  - Mixed/blended payment schemes
    - Capitation / enhanced FFS / bonuses & incentives / interprofessional practice / etc.
      - But, not “capitation” of economic theory of a decade ago
      - Somehow many economic theorists neglected to consider that MDs are unionized and good negotiators
  - Not clear what the results of this will be

2. Changes in scopes of practice of non-physician health professionals

- Probably beneficial in most cases, but lots of details, lots of choices, and certainly some unintended consequences
- Initial forays (within limits) in Ontario
  - Nurse practitioners can diagnose and prescribe
  - Pharmacists can prescribe
  - Optometrists can diagnose and prescribe
  - Physiotherapists can order X-rays
  - Funding for interprofessional team-based delivery of primary care

Example of detail/choice/unintended consequence

Changing Medicare's nature (inadvertently)?

- As non-physician scopes of practice are expanded, and tasks that were previously exclusively done by physicians are ALSO undertaken by others
  - WHO PAYS?
  - Is this two-tier?
  - Is this type of two-tier a bad thing?

- E.g., In Ontario optometrists will soon be diagnosing and treating (prescribing for) glaucoma and similar eye ailments
- Previously this would have been done by a physician and been covered by OHIP/medicare
- But, now two routes for this **same** service
  - Physician → OHIP
  - Optometrist → private (& OHIP/MSS for some)

New beginning

- We are (probably) in near the start of a new era of health care delivery in Canada in terms of Health Human Resources
- Aging is a modest driving force, but it becomes a major issue by virtue of limited government fiscal resources
  - The “pure” aging effect in health is manageable by historical norms
  - But, it’s a good motivator and may well induce good and useful changes
  - It may even spur us to build a healthcare system