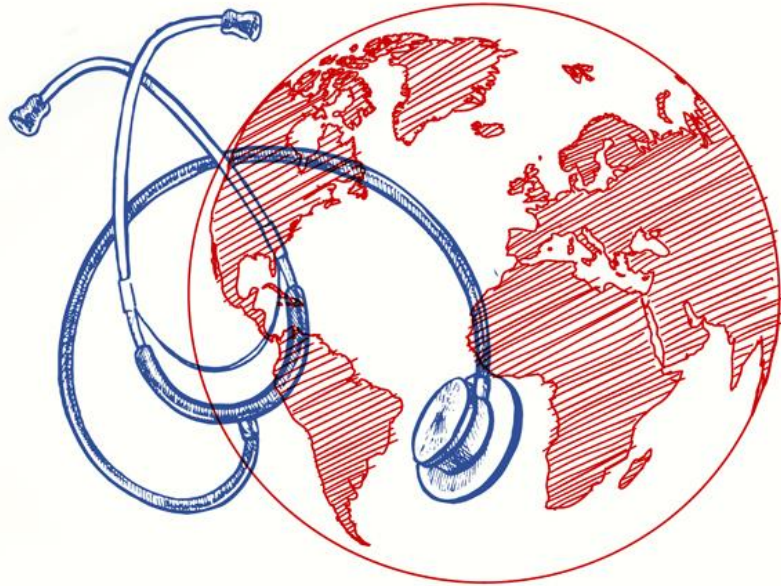


Global Health Cast 63

April 15, 2024



Dr. Melvin Sanicas
X @Vaccinologist

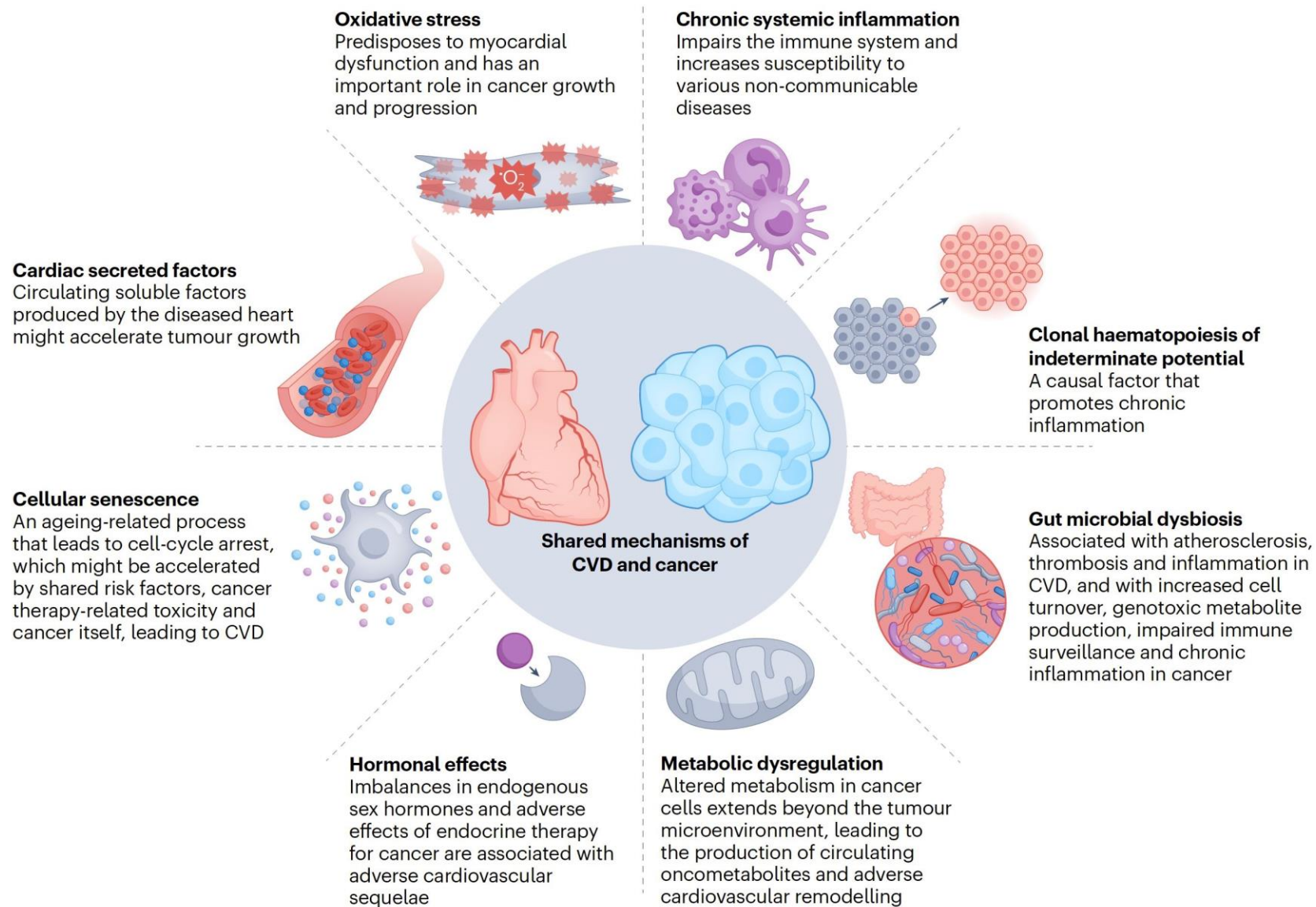


Prof. Dr. Joe Schmitt
X @Prof_Schmitt

What we talk about today

- **Cardiovascular disease and cancer are different but are interconnected with shared mechanisms and risk factors**
- **NORWAY: COVID vaccination reduced risk of Long COVID by 40%**
- **Hong Kong Reports First Human Case of B Virus**
- **Polio eradication status**
- **Medical wearable devices**
- **The role of AI in future medicine**
- **Fake Vaccination – possible impact**

CVD and cancer, although different, are interconnected



	Vaccinated			Unvaccinated		
	Individuals	COVID-19	Long COVID	Individuals	COVID-19	Long COVID
Cohort 1	197 174	782	168 (21.48%)	224 223	4113	751 (18.26%)
Cohort 2	434 723	3266	520 (15.92%)	321 977	7000	643 (9.19%)
Cohort 3	263 057	2814	370 (13.15%)	438 151	18 544	1267 (6.83%)
Cohort 4	1 469 697	39 210	518 (1.32%)	548 584	41 971	261 (0.62%)

Data shown are n or n (%). Exposure is any COVID-19 vaccine. Outcome is having at least one WHO-listed symptoms 90 days or more following SARS-CoV-2 infection with no history of that symptom in the previous 180 days (long COVID). Cohort 1 includes individuals aged 75 years and older, cohort 2 includes individuals aged 65 years and older and clinically extremely vulnerable people, and those with underlying health conditions aged 18 years and older, cohort 3 includes individuals aged 18 years and older with underlying conditions, and cohort 4 includes individuals aged 18 years and older. Unvaccinated people can be included in different cohorts

COVID vaccination reduced risk of Long COVID by 40%

Table: Diagnostic records from the Norwegian Linked Health Registries at University of Oslo for any long COVID symptoms between 90 and 365 days after SARS-CoV-2 infection, stratified by cohort and exposed status

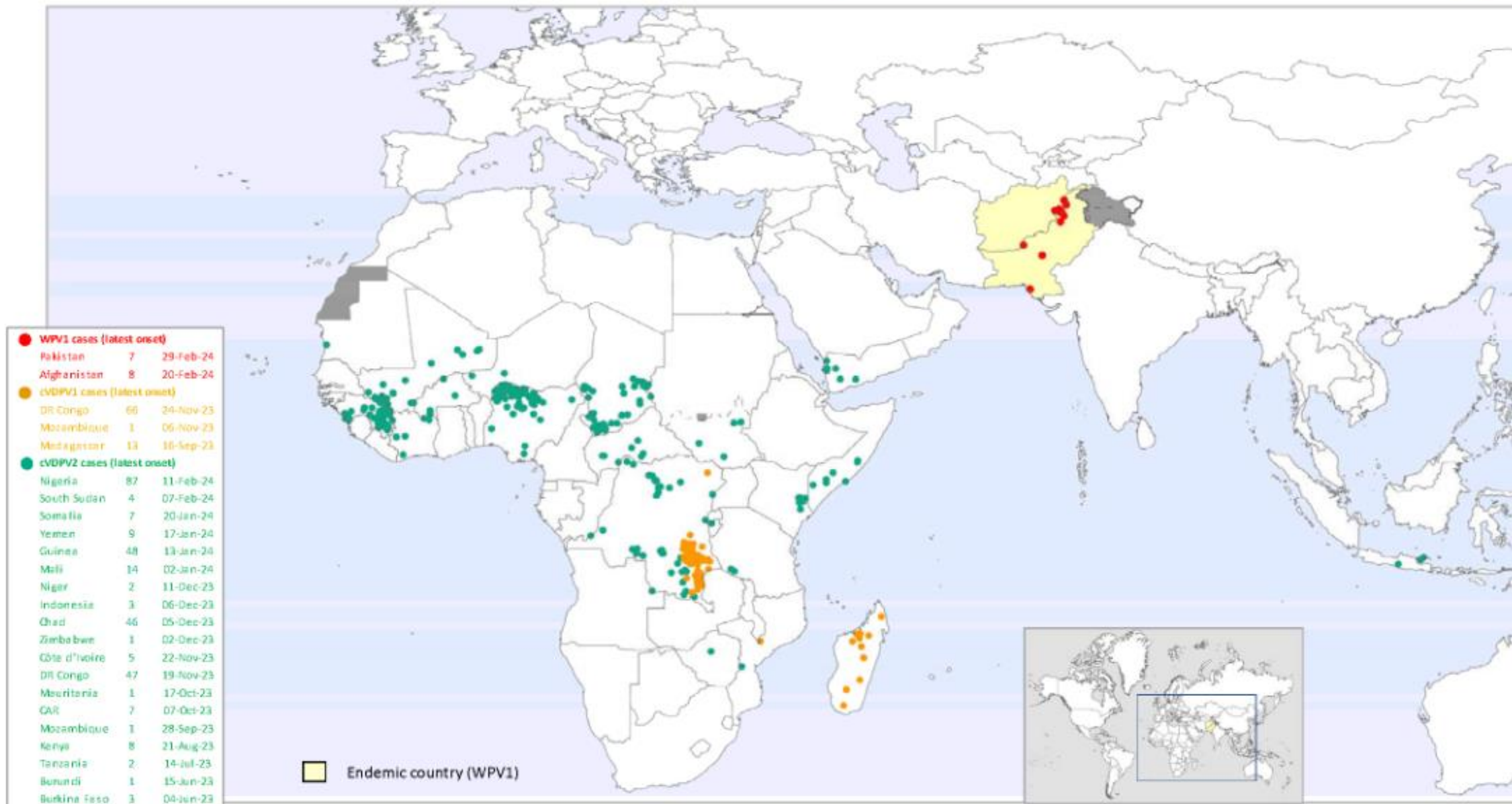


Hong Kong Reports First Human Case of B Virus



Hong Kong's Centre for Health Protection announced this week it recorded the area's first human case of B virus, also known as the herpes simiae virus. The serious, but very rare viral infection was diagnosed in a 37-year-old man who had contact with wild monkeys and was wounded by them during a visit to Kam Shan Country Park in late February. The man who was previously in good health was admitted to Yan Chai Hospital through the accident and emergency department on March 21 with a fever and decreased conscious level.¹

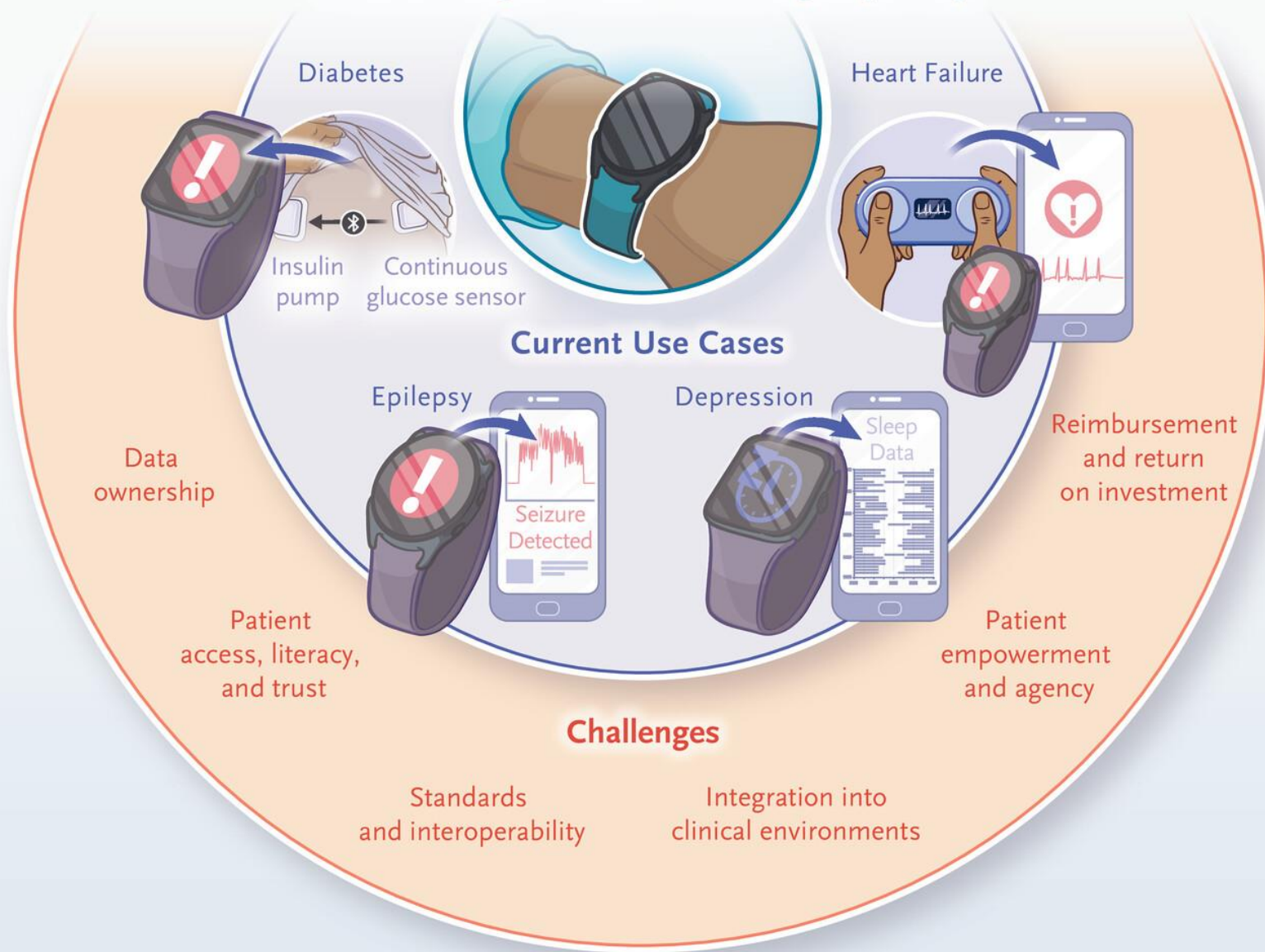
Global WPV1 & cVDPV Cases¹, Previous 12 Months²



¹Excludes viruses detected from environmental surveillance; ²Onset of paralysis: 10 Apr. 2023 to 09 Apr. 2024

Data in WHO HQ as of 09 Apr. 2024

Wearable Digital Health Technologies (DHTs)



How Will Artificial Intelligence (AI) Change Medicine/ID?

1. **Medical procedures will be the same: history, exam, lab, imaging, differential diagnosis, therapeutic and preventive interventions; BUT:**
 1. Medical History taking: „on file“ structured questions by AI
 2. Physical Examination will (partially) be accomplished by machines
 3. AI calculates differential diagnosis based on pre-test probabilities (**PTP**)
- based on results: further testing and imaging
2. Final „hit-list“ of (differential-) diagnosis by AI with probabilities
3. AI to suggest next steps: patient plan by **Costs, Availability, PTP, Time and Scheduling (CAPTS)**.
4. This may include resource planning and cost analysis in the decision process
5. **HOPEFULLY:** humans will always **verify** and **approve final plan**

Faked Vaccinations: It is easy – but criminal - to fake vaccination cards



Vaccine lot sticker measles	€ 250.-
+ DTaP-6	€ 400.-
+ polio, Rota, meningococcus	€ 600.-
Physician seal	€ 60.-



Fake vaccination cards

- ▶ Criminal action as health and life of own child, other children in daycare, HIV+ patients, pregnant women and cancer patients may be negatively affected
- ▶ Wrong public health decisions may result from (presumed) higher vaccine uptake
- ▶ Wrongly assigning „**vaccine failures**“ to diseased patients – where the disease in fact results from (hidden) „**failures to vaccinate**“
- ▶ Example: complications of measles
 - ▶ >1/1,000 children will die from measles
 - ▶ SSPE – specifically with measles in first year of life
 - ▶ Other complications (pneumonia, otitis media ...)

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