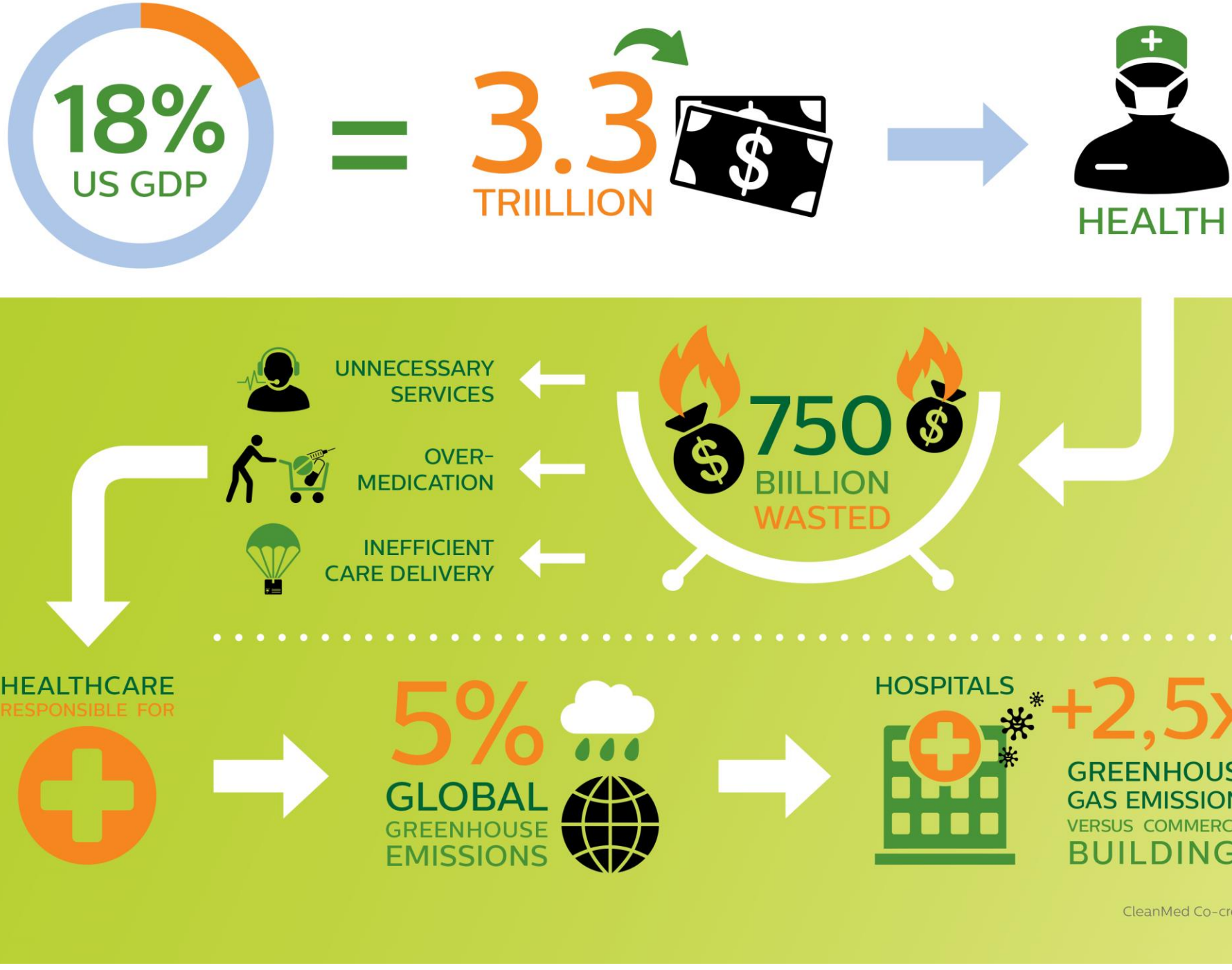
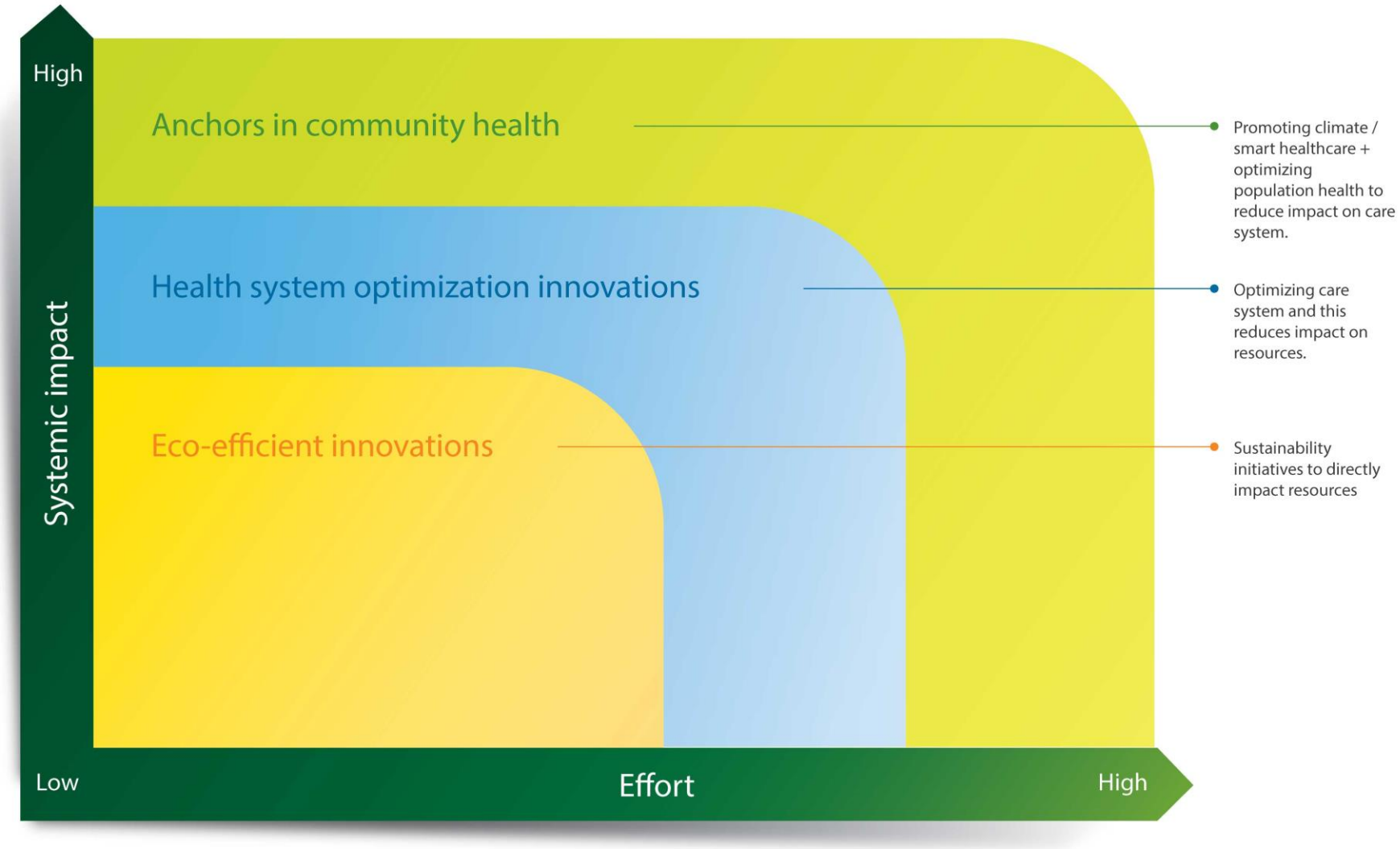
Designing maximum health with minimum resources

Kurt Ward
November 9, 2023


18%
US GDP
=
3.3
TRIILLION
HEALTH
UNNECESSARY SERVICES
OVER-MEDICATION
INEFFICIENT CARE DELIVERY
750
BIILLION
WASTED
HEALTHCARE
RESPONSIBLE FOR
5%
GLOBAL
GREENHOUSE
EMISSIONS
HOSPITALS
+2,5x
GREENHOUSE GAS EMISSIONS
VERSUS COMMERCIAL
BUILDINGS

Mapping examples of radical innovation in sustainability

Map radical innovations, that are fresh and eye-opening, for each horizon (i.e. eco-efficient innovations, health system optimization innvations,or anchors in community health). These can be existing examples from your company or organization, or any example you've encountered or heard about, or even any idea you have that doesn't yet exist.



HEALTH SYSTEM MEMBERS

During tenders increase the weighting and scoring impact for diversity and environmental factors (EPP):

- Remote servicing of equipment
- Built-in energy consumption monitoring with ability to export consumption data in actionable insights
- Longer average lifespan of products that are greater than the industry standard
- Upgradability guarantees
- Companies that have lifecycle design strategies and developments that are industry leading
- Built in sensors that predict failures and performance tracking to reducing equipment downtime
- Refurbished equipment that meet the same specifications as new equipment
- EPEAT registrations
- Inclusion of public reporting requirement

Review your actual systems need by analyzing the average number of patients and the new throughput time of the technology to potentially purchase less equipment

Review total cost of ownership like reducing CAPEX through paying per scan models which will require the manufacturer to manage the equipment life cycle

Include in contracts a bold and detailed equipment disposition agreement to ensure visibility once the equipment is out of health systems possession

DRAFT ACTIONS AND NEXT STEPS

Build a business case by documenting the real total cost across the ecosystem and lifetime.

Not just capex investment but be total lifetime cost and appreciation for consequences on the environmental footprint, public health, and clinical outcomes, increased impact on local businesses. Defining our moral imperative and shared values to first do no harm.

Create advocacy teams to get on councils of GPO's and others to help build industry awareness and regulatory change

(Carbon tax includes waste tax etc..)

Communication to industry around repurposed equipment and how to prove that it is as good as new

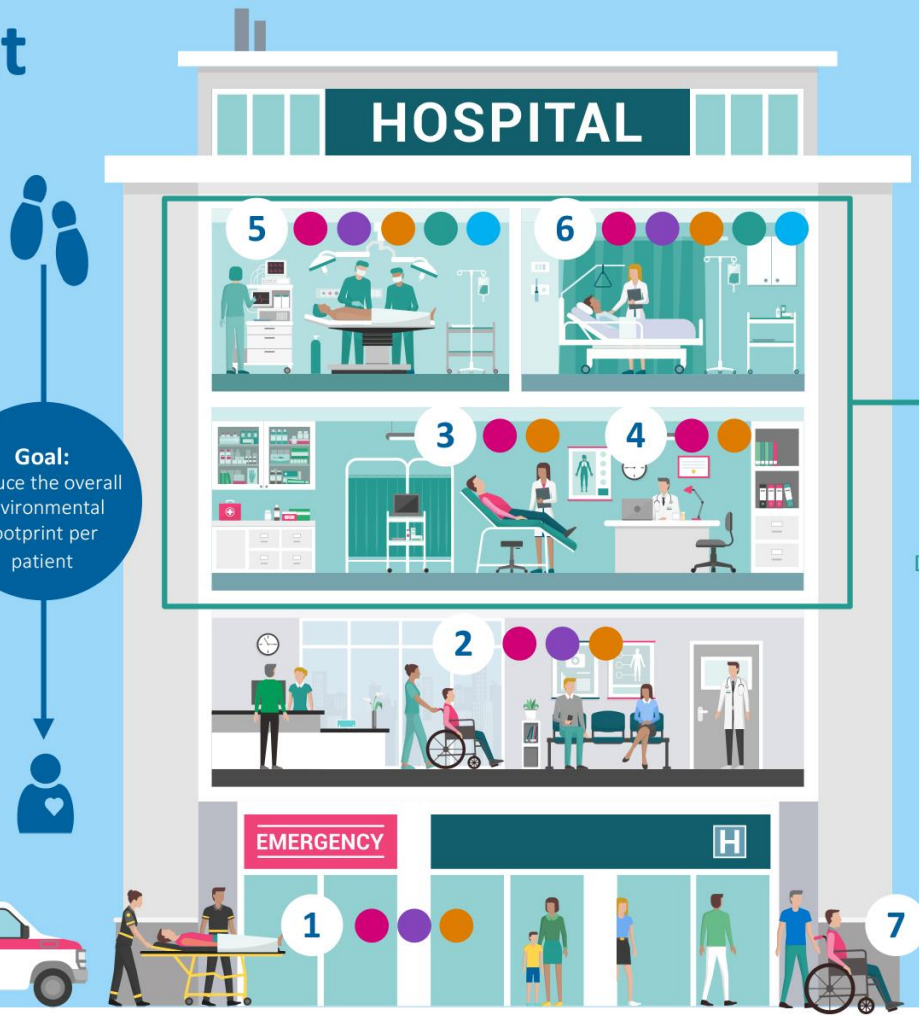
Write and deploy new KPI's and measurements like Cradle to Cradle and/or EPD

(Environmental Product Declaration)

360° Assessment

Greening the general patient journey & staff workflow

Goal:
Reduce the overall environmental footprint per patient



Department:
general

Virtual care
- Telehealth consultation
- Remote patient monitoring

Opportunity areas
alongside the patient journey

Sustainable logistics and supply chain
- Optimized stock levels, reduced obsolete stock
- Waste prevention & improved waste policies
- Improved re-usability of materials and consumables
- Improved sustainable logistics (in-hospital & ex-hospital)

Efficient workflow
- Less resource need per patient through efficient operational workflows
- Optimised equipment utilisation levels

Sustainable minded behaviour
- Less energy consumption by switching off equipment not in use consumables
- Less waste by shifting to multi-use consumables
- Sustainable transportation of the staff

Green procurement
- Equipment with lower energy consumption
- Circular solutions: refurbished equipment, upgrades to extend life-time
- Sustainable (multi-use) consumables

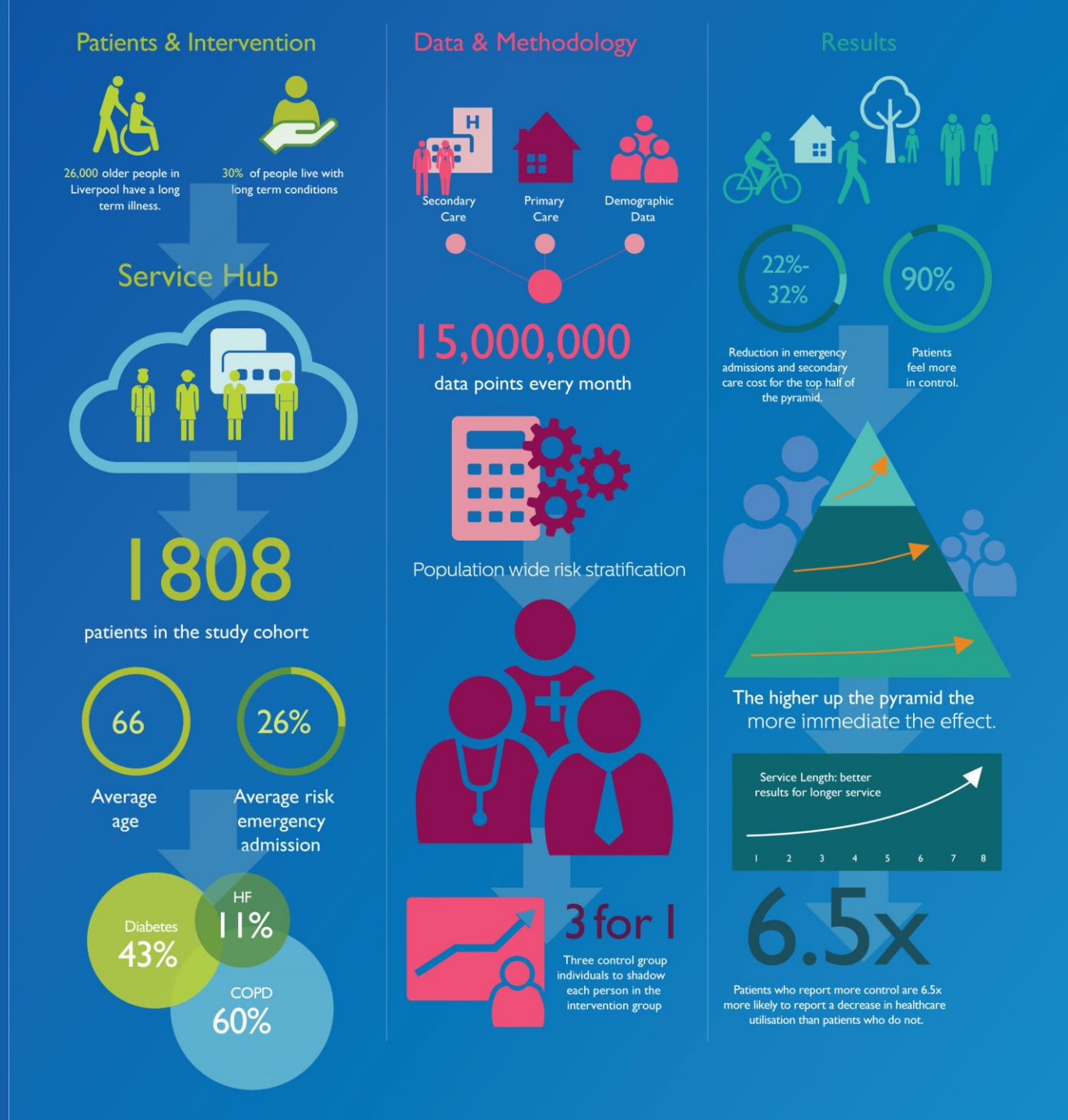
Digitalisation
- Telehealth: less travel emission/patient through telehealth
- Remote servicing: less travel emission for FSE through remote servicing of equipment and training of staff

	1	2	3	4	5	6	7
Patient journey	Arrival	Consultation	Examination and tests	Consultation	Treatment	Recovery	Discharge
Staff workflow	Welcome patient (reception)	Consult patient (physician)	Examine patient (physician / radiologist / nurse)	Consult patient (physician)	Give treatment (physician and nurse)	Support patient recovery (physician and nurse)	Discharge (clinical team)

Anchors in community health

A n example of a population approach to evaluate technology enabled support for long term condition management

NHS Liverpool 2017




There’s always
a way to **make**
life better
innovation
you