What is Value Based Health Care and why should WA embrace it?

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CRT CANCER RESEARCH TRUST

This work was carried out with the support of the Grant provided by the Cancer Research Trust

Continuous Improvement in Care *cancer*

Health spending

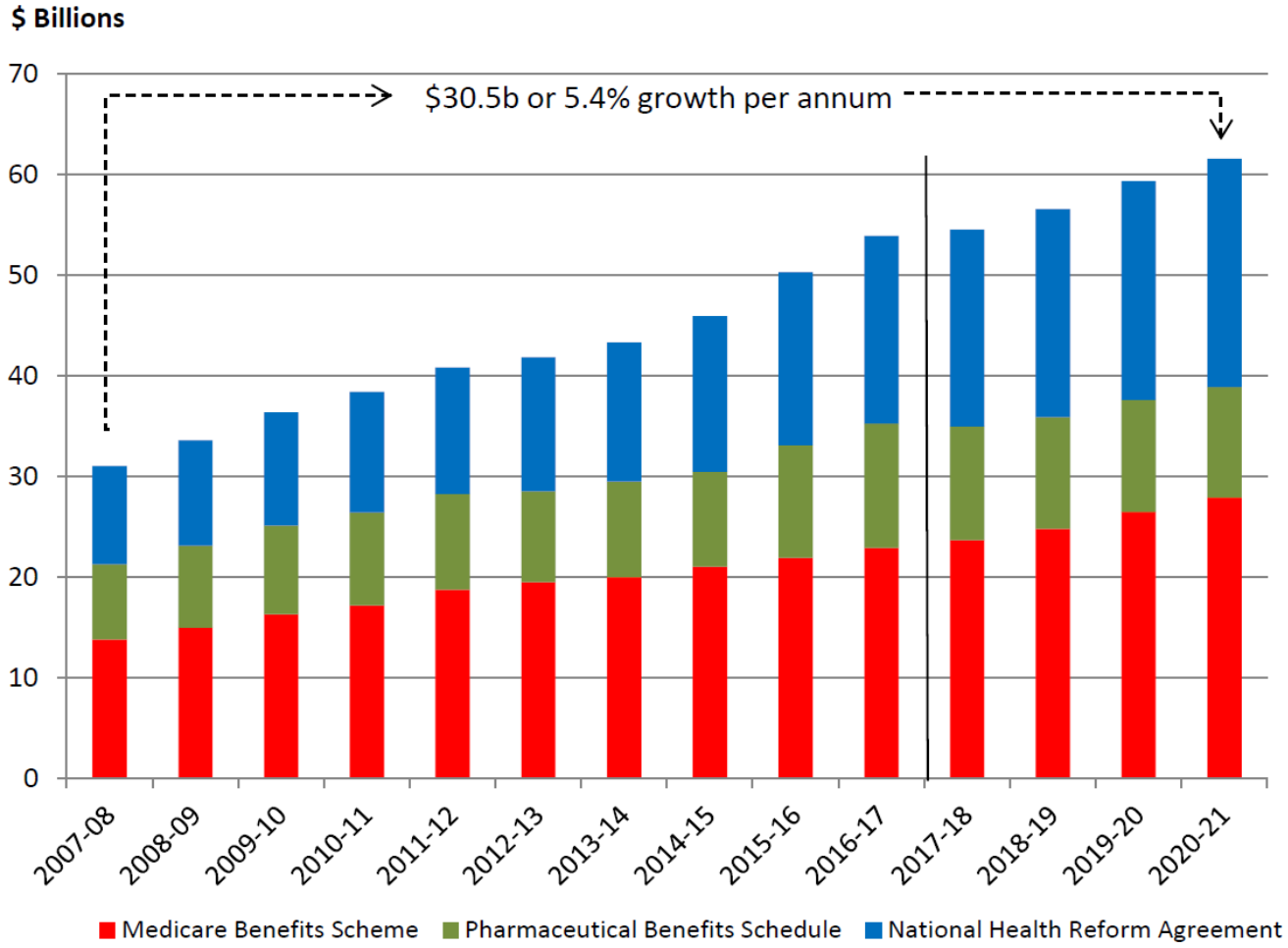
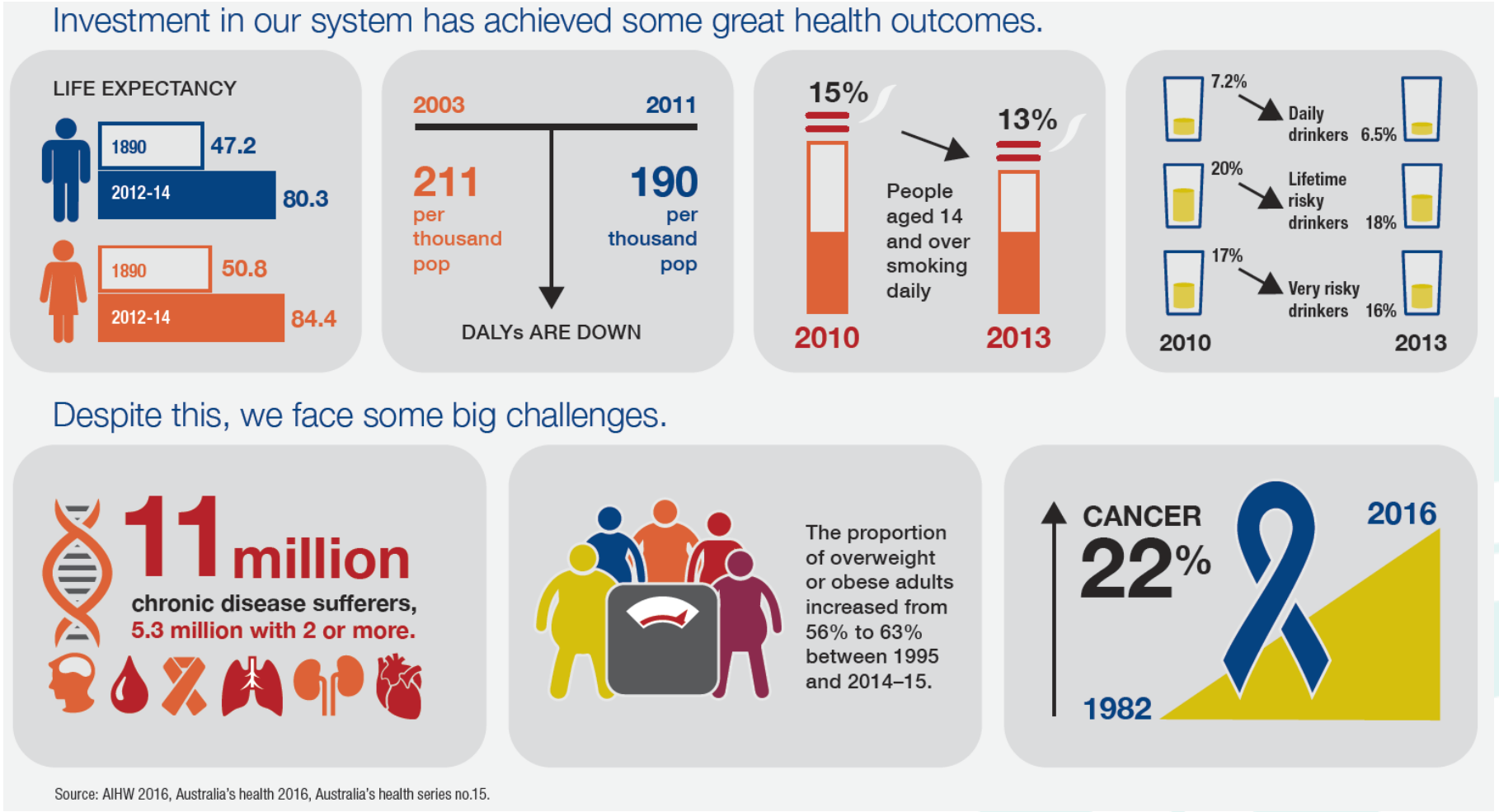


Figure 6: Australian Government 'Medicare' funding

Increases due in part to increased life expectancy and technological developments, new diagnostics and treatment. **But some from inappropriate care, excessive variation in clinical practice, errors, and even fraud. Global studies show at least 20% of health expenditure has no beneficial impact or added value for patients.**

Source: Fiscal Sustainability of the Health and Aged Care System Dec 2017 update

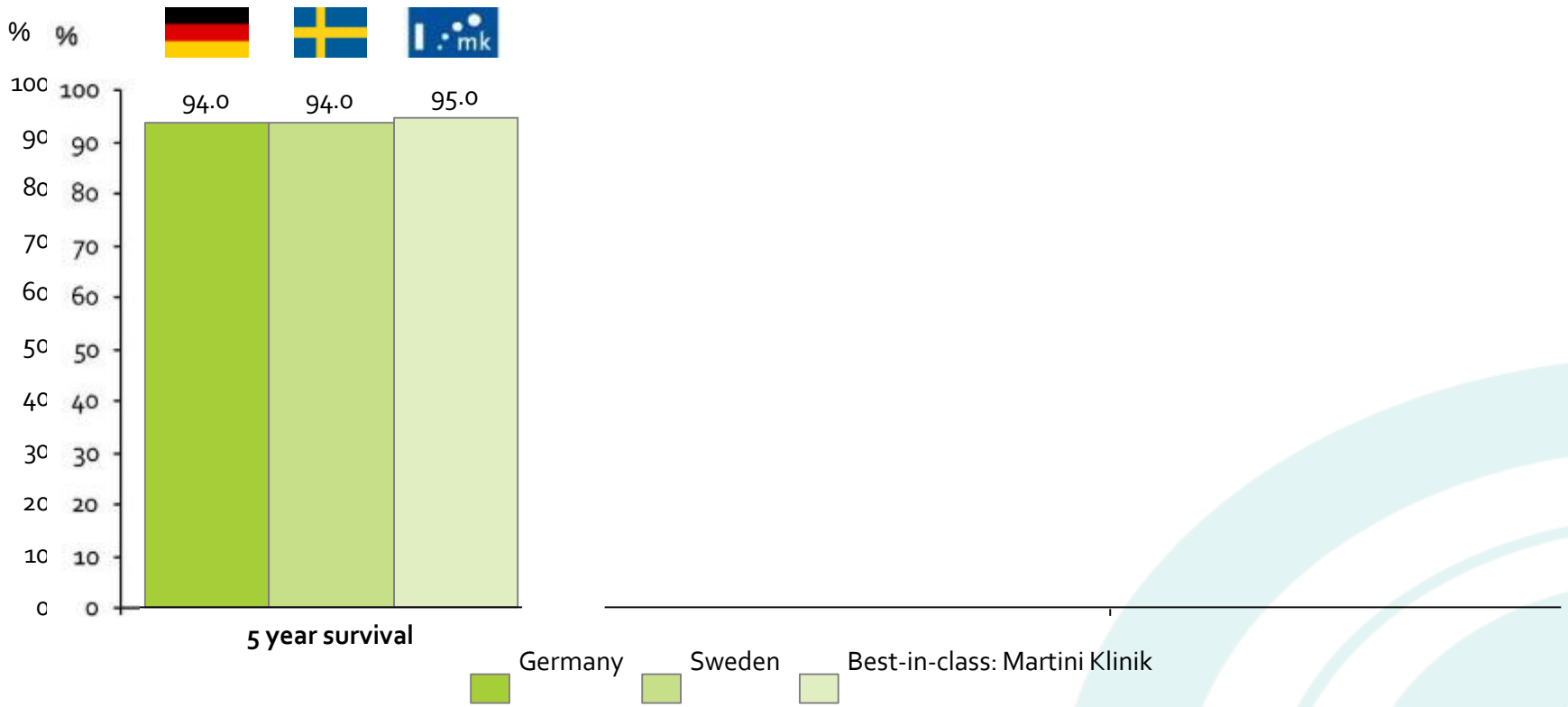
What are AUD$ achieving?
- Good health outcomes



Source: AIHW 2016, Australia's health 2016, Australia's health series no.15.

Variability in outcomes…prostate cancer

Focusing on mortality alone…

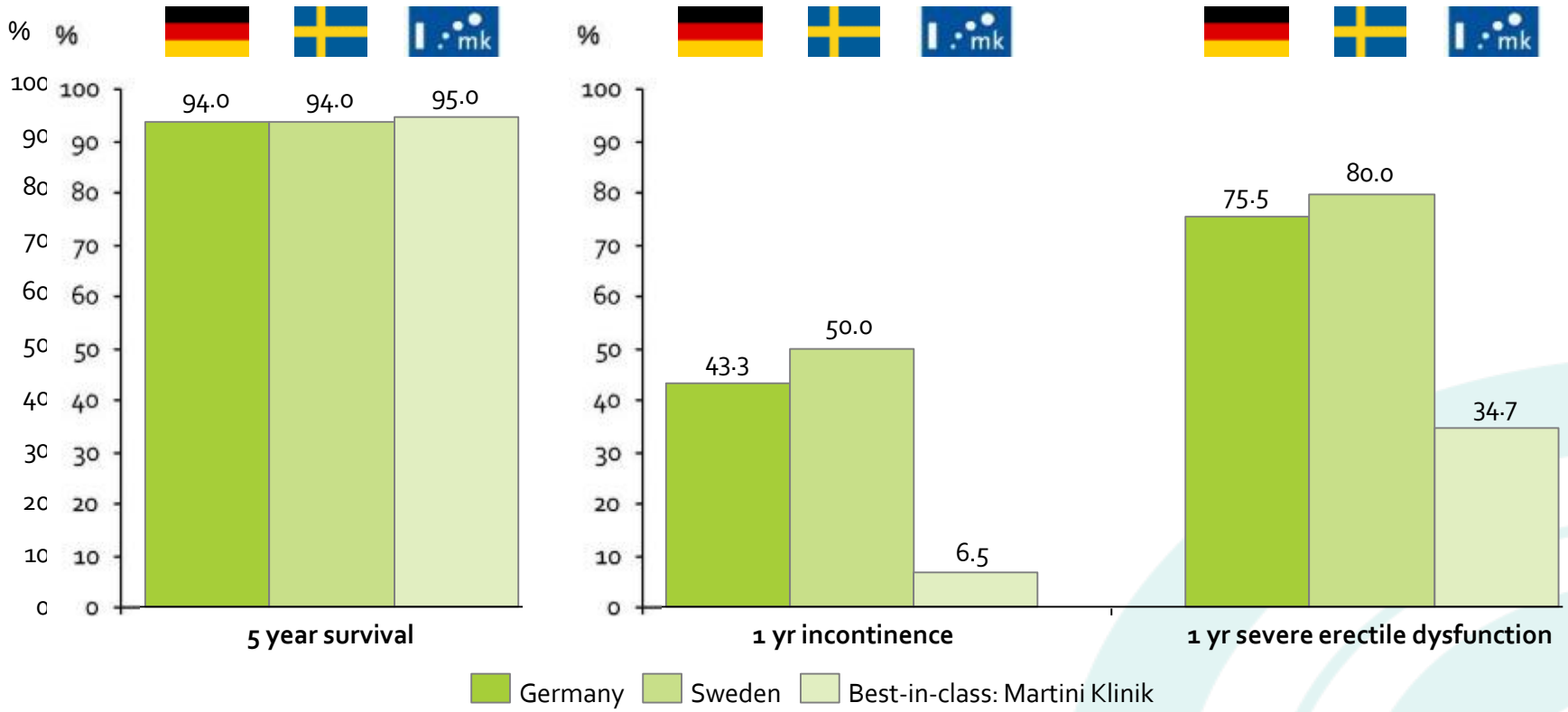


Swedish data rough estimates from graphs; Source: National quality report for the year of diagnosis 2012 from the National Prostate Cancer Register (NPCR) Sweden, Martini Klinik, BARMER GEK Report Krankenhaus 2012, Patient-reported outcomes (EORTC-PSM), 1 year after treatment, 2010

Variability in outcomes…

Focusing on mortality alone…

…may obscure large differences in outcomes that matter most to patients



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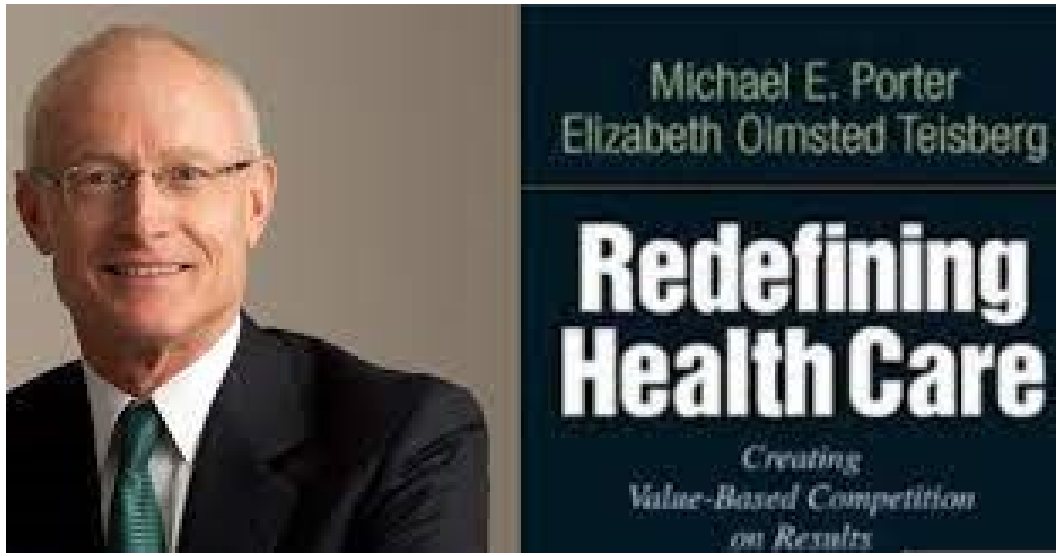
Health care delivery must shift from volume to value

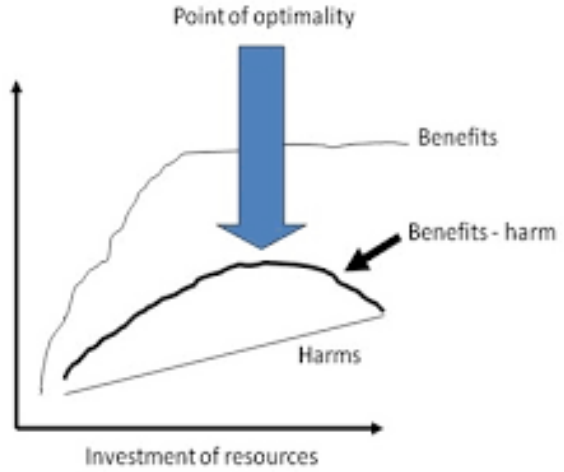
Source: changehealthcare.com 2019

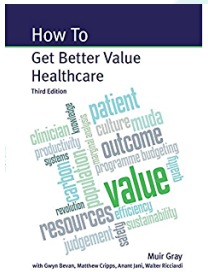
What is Value based Health Care?

Harvard model – Porter and Teisberg



Oxford model – Muir Gray





Value-based health care

The core purpose of health care is **value for patients** and delivering high value for patients must be the **central goal** of every health care organisation.

$$\text{Value} = \frac{\Delta\text{Health outcomes that matter to patients}}{\text{Costs of delivering those outcomes}}$$

Financial success is the result of delivering value, not the end in itself

Value-based health care

- Value cannot be understood at the level of a hospital, a care site, a specialty, an intervention, a primary care practice or a broad patient population. It is created in caring for a patient's medical condition(s) (acute, chronic) over the full cycle of care *which may include social determinants of health*

- The most powerful single lever for reducing cost and improving value is **improving outcomes**. **Patient experience and outcomes must sit at the centre** of the health care system

Source: "What is Value in Health Care" (Michael Porter, New England Journal of Medicine, 2010)

Muir Gray

- Reducing unwarranted variation to maximise the value of healthcare for populations
- How can the gap between need and demand on the one hand and resources on the other be closed or narrowed? We use evidence based decision making (to ensure that only interventions with strong evidence of cost effectiveness are used), quality improvement (to improve outcomes), and cost reduction. These are all necessary but not sufficient.
- A new approach is emerging called value based healthcare, which aims to increase the value that is derived from the resources available for a population.

Triple Value healthcare

- E.g. NHS England RightCare programme:
- ***Personal value*** (at the level of Patient), i.e. ensuring that each patient's values are used as a basis for decision-making. This involves not just measuring the patient experience but also a preference-based informed decision.
- ***Technical value*** (at the level of Intervention), i.e. ensuring that resources are used optimally for a given condition.
- ***Allocative value*** (at the level of Population), i.e. ensuring that the resources are allocated in an optimal and equative way to serve populations
- In this triple value model, the clinician is not only responsible for maximizing the outcomes for a specific patient with the least use of resources, but also for preventing inequity related to age or other social factors

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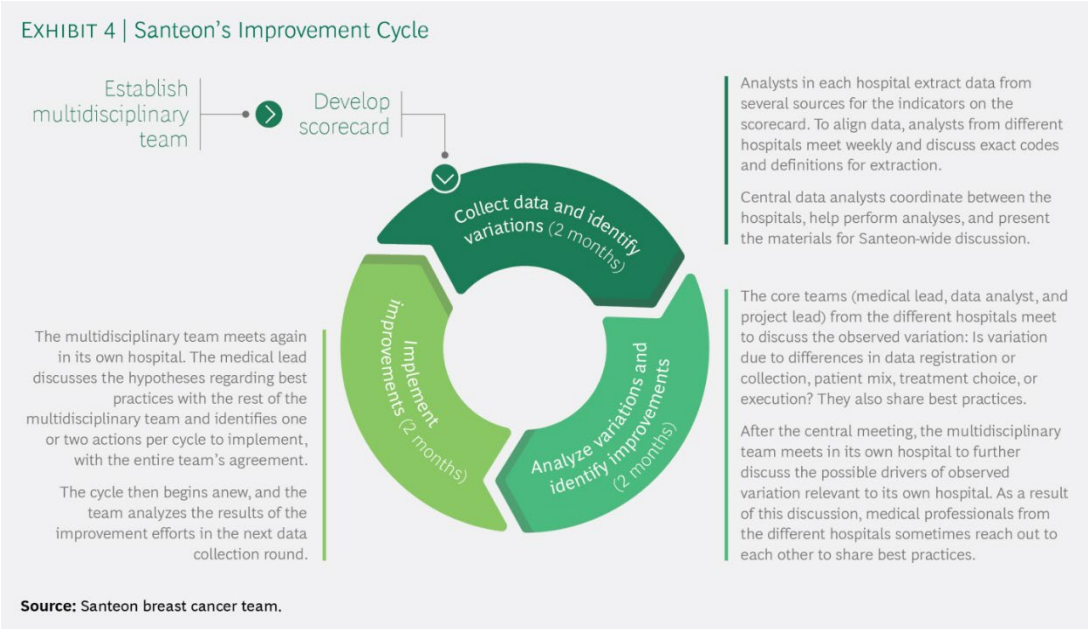
- ***Societal value***, i.e. ensuring that resources that are allocated promote social cohesion, based on "participation, solidarity, mutual respect, and recognition of diversity".

Worldwide examples - institutions

Cleveland Clinic in the USA, Karolinska Centre, Santeon Hospitals

- *"Santeon, a Dutch network of 7 leading teaching hospitals, has achieved reductions of 30% in unnecessary inpatient stays and 74% in reoperation due to complications in breast cancer in 18 months, not merely by meeting protocols or guidelines—been doing that for a long time—but by emphasizing transparency and making value delivered to patients the core of its strategy."*



https://www.bcg.com/publications/2018/how-dutch-hospitals-make-value-based-health-care-work

Worldwide examples - OECD

- PaRIS initiative (breast cancer, hip/knee replacement/mental health):

developing, standardising and implementing indicators that measure the **outcomes and experiences of health care that matter most to people**.

https://www.oecd.org/health/paris/

Worldwide examples

- Economist intelligence unit

https://www.sources.health/articles-reports/economist-intelligence-unit-2016-value-based-healthcare-a-global-assessment

Worldwide examples – www.ichom.org

Colorectal Cancer

Breast Cancer

Lung Cancer

Advanced Prostate Cancer

Localised Prostate Cancer

Source: ICHOM

Worldwide examples: Person centred VBHC

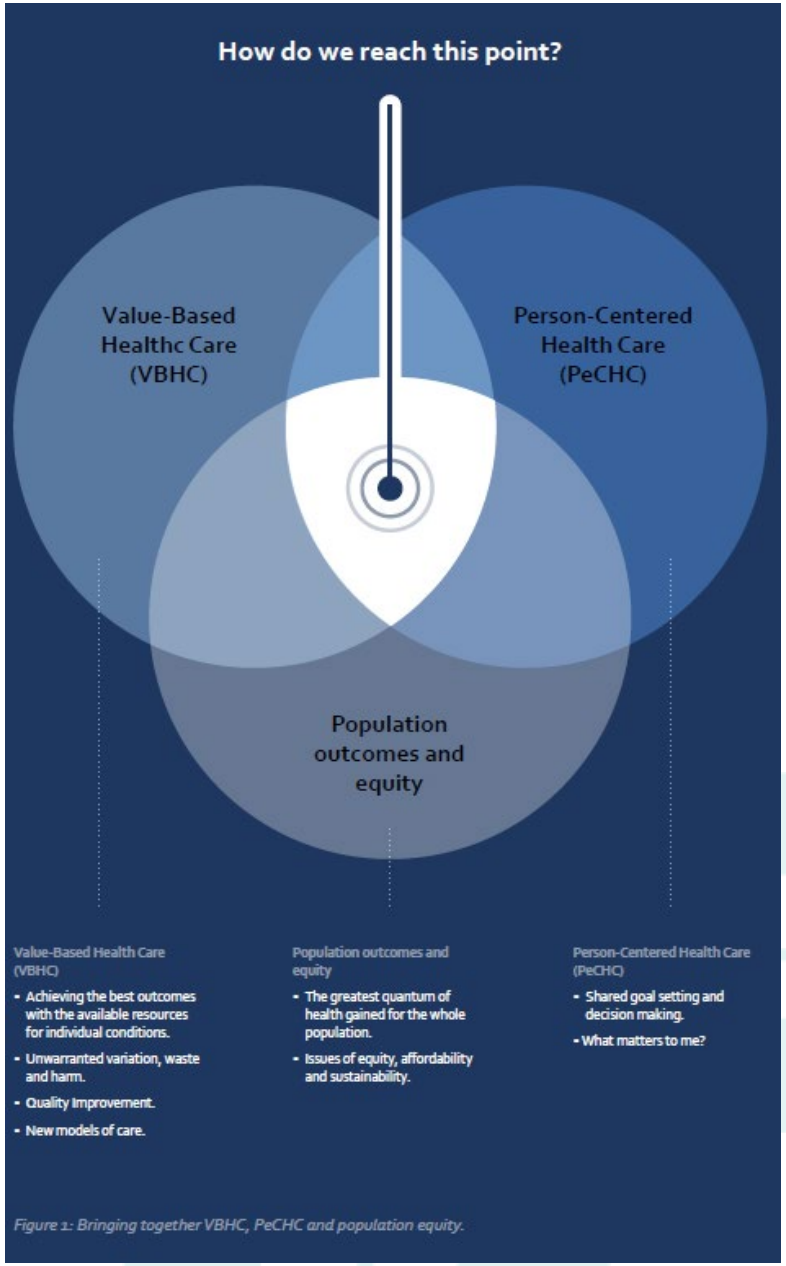
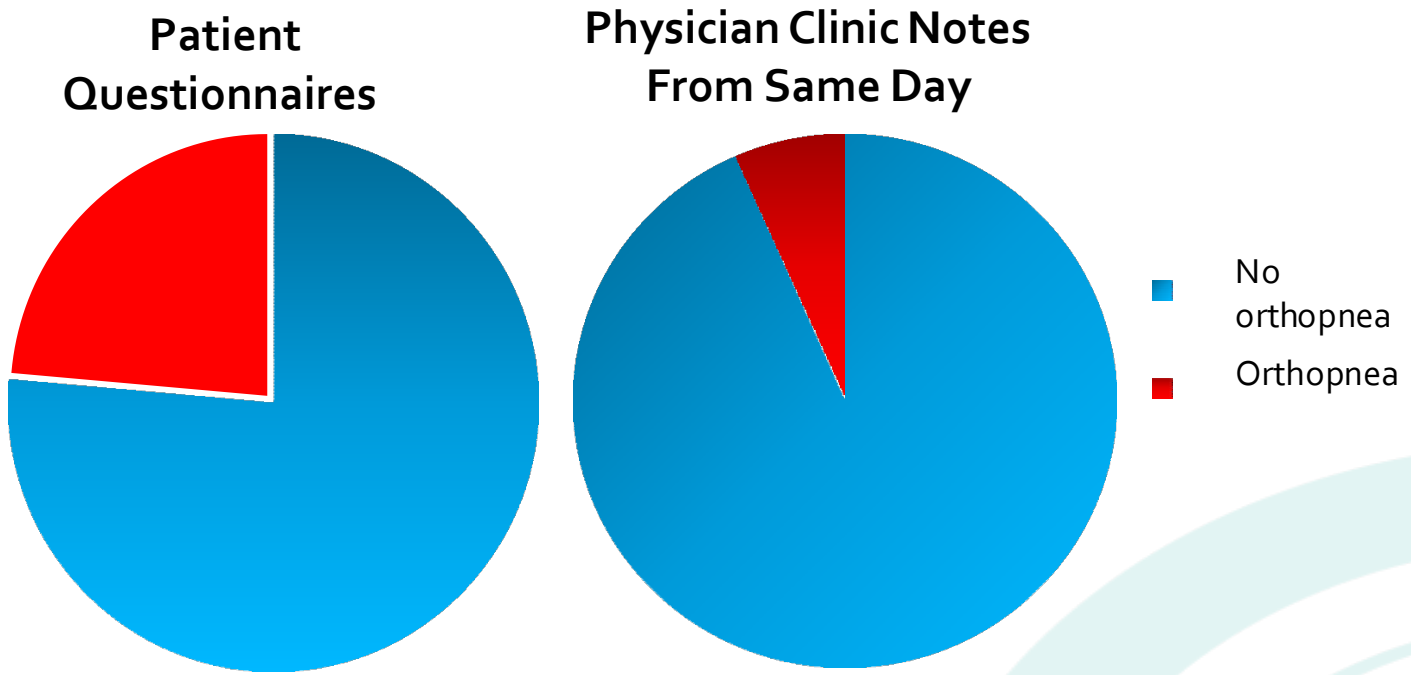


Figure 1: Bringing together VBHC, PeCHC and population equity.

https://www.sprink.co.uk/pcvbhc-report/

One key is asking patients : Example of Variation in PRO Versus Physician Reporting of Orthopnea



N=932

Motiwala, Castro, Lewis et al, HFSA 2017

All.Can survey – over 4000 patients

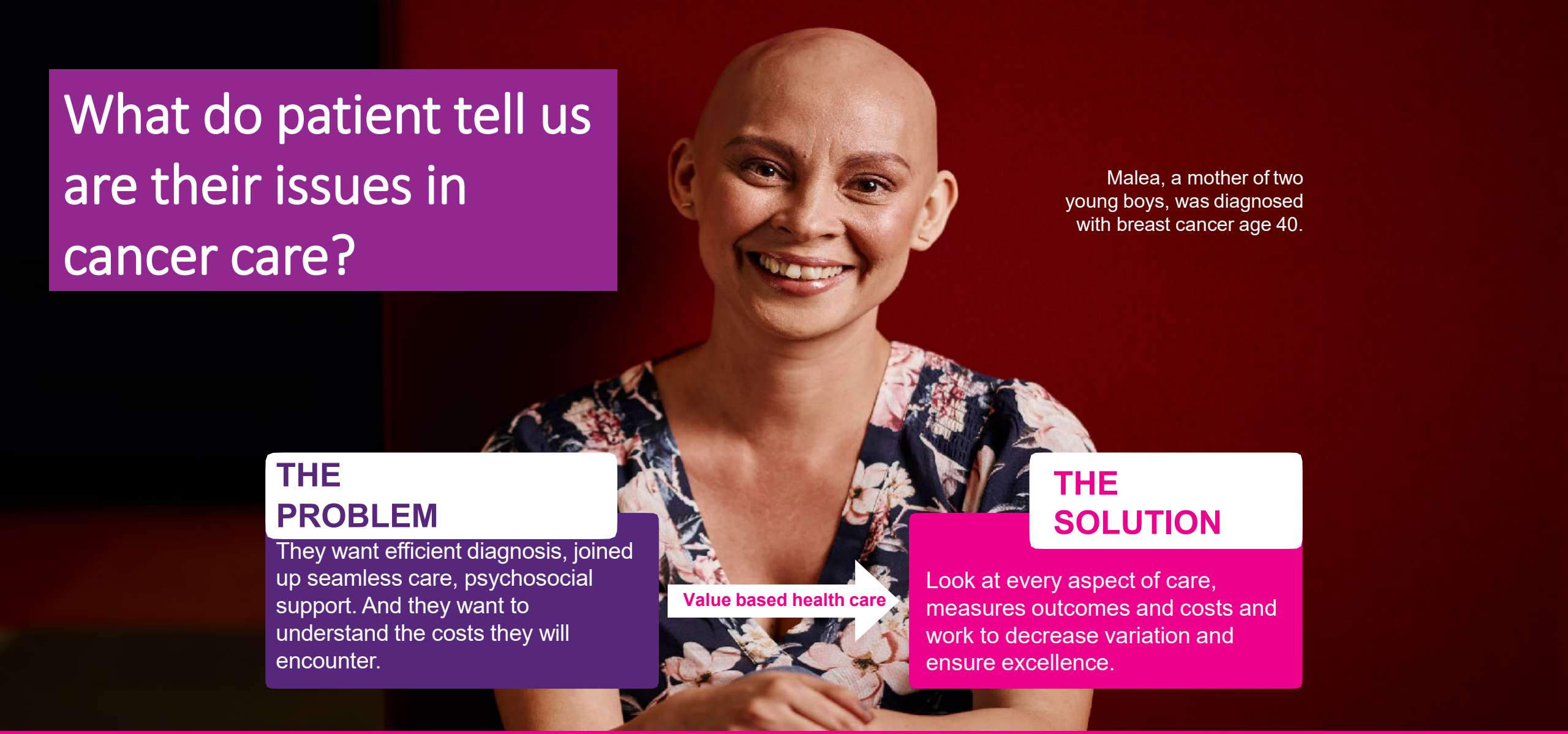
Overall, four main opportunities were identified to improve efficiency from the patients' perspective (international results)

1. Ensure a swift, accurate and appropriately delivered diagnosis
2. Improve information sharing, support and shared decision-making
3. Make integrated multidisciplinary care a reality for all patients
4. Address the financial implications of cancer

All.Can Changing cancer care together

Reference: All.Can. 2019. *Patient insights on cancer care: opportunities for improving efficiency.* London: All.Can

What do patient tell us are their issues in cancer care?



Malea, a mother of two young boys, was diagnosed with breast cancer age 40.

THE PROBLEM

They want efficient diagnosis, joined up seamless care, psychosocial support. And they want to understand the costs they will encounter.

Value based health care

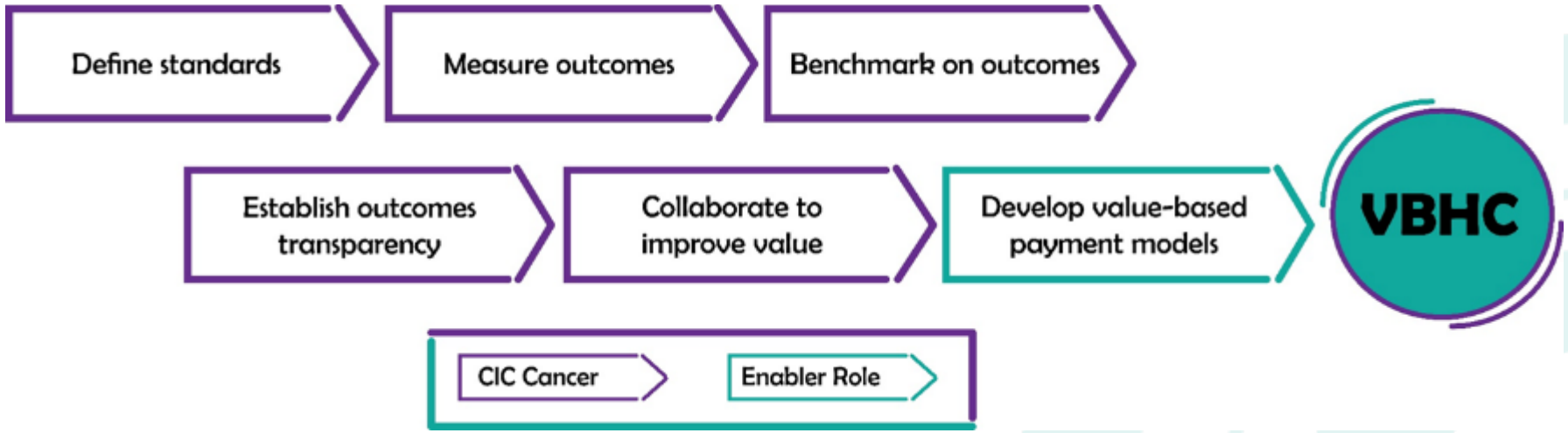
THE SOLUTION

Look at every aspect of care, measures outcomes and costs and work to decrease variation and ensure excellence.

Proof-of-concept work in WA in cancer

- CIC Cancer Project is bringing value-based healthcare (VBHC) into cancer care for 5 cancers in 5 public and private hospital settings within WA to help drive improvements in care and patient outcomes
- Key stakeholders are involved to measure outcomes important to patients
- Increase capacity for health systems and outcomes research
- Evaluate the impact of the implementation, including health economics evaluation

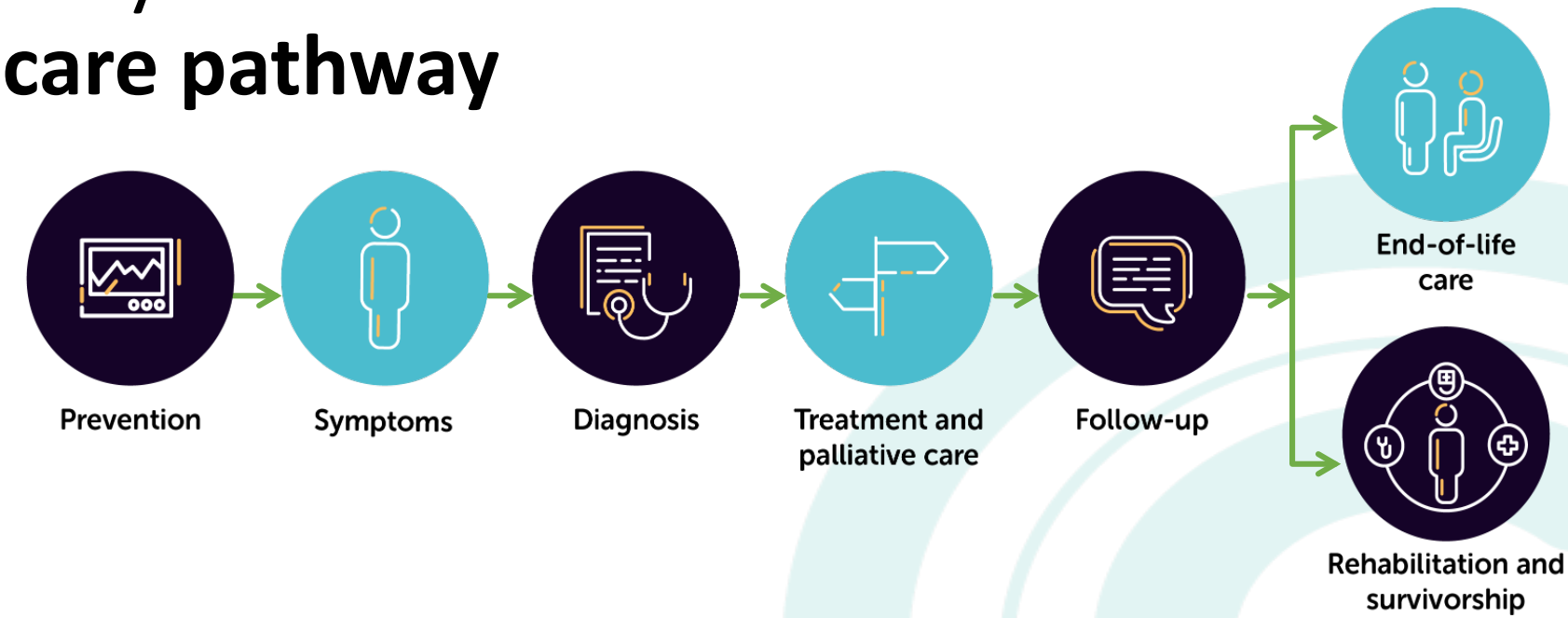
Role of CIC Cancer in VBHC



Mapping patient journey and optimal care pathways for breast, colorectal and lung cancer in a public hospital

Efficiency in cancer care

There are opportunities to improve efficiency across the **entire cancer care pathway**



All.Can
Changing cancer care together

Optimal Care Pathway for Lung Cancer - CIC Cancer Example #4

Step in Pathway		Care point	Encounter/s	Location	Timeframe (Days)	ABF Cost/ MBS Assumption	Clinical Outcomes	PROMS
Prevention & early detection		PMHx Risk factors	PMHx: COPD. Risk factor/s: Smoker.					
Presentation, intial investigations & referral	Support & communication	Signs & symptoms	Dysphagia (food sticking retrosternally), weight loss 10kg over 6 weeks, 1 episode of haematemesis.					
		Initial investigations initiated by GP (within 1-week)	Barium swallow	Radiology provider	0	$140.85		
			CT Chest with contrast	Radiology provider	0	$406.00	Mediastinal mass on CT, uncertain if lung or oesophageal primary. Unknown delay after CT to Resp	
			Pre-Admission/Pre-Anaesthetic Endoscopy Appointment 1 - Telephone	S/Hosp A	31	$132.85		
			BOOKED ADMISSION: PANENDOSCOPY to Duodenum	S/Hosp A	6	$1,575.36		
			HISTOPATHOLOGY				Biopsy NAD	
			DISCHARGED to Home					
		Referral to specialist (within 2-weeks)	**ED ATTENDANCE** for Assessment of Dysphagia and weight loss	S/Hosp A	35	$1,054.00		
			ADMITTED under General Medicine	S/Hosp A	0	$6,216.63		
			DISCHARGED to RPH (3-day LOS)		3		Interhospital transfer to 'T/Hosp1'	
Diagnosis, staging & treatment planning	Support & communication	Diagnosis and staging (within 2-weeks)	**ADMITTED** to Acute Medical & Referred to Respiratory Med for Assessment of Dysphagia & Ix of Lung Mass	T/Hosp1	0	$51,741.32	Oesophageal compression secondary to mediastinal tumour. NGT placement & Referral to Dietician	
			HISTOPATHOLOGY				EBUS: Distal bronchus intermedius - Squamous cell carcinoma. PDL-1 <1%	
			PET Scan - Whole Body	T/Hosp2	13	$2,145.70	1. Intensely FDG-avid R) infrahilar mass with posterior mediastinal invasion & possible oesophageal infiltration. 2. Metabolically active airspace/parenchymal opacification in the medial basal segment of the R)LL, distal to the infrahilar mass, could reflect tumour extension or obstructive pneumonitis. 3. Likely R) hilar/mediastinal nodal involvement, with a further metastasis in the R) lateral calvarial region which could be leptomeningeal or osseous. Further evaluation with MRI recommended. 4. Moderately-avid pleuroparenchymal changes in the R)UL & lingula appears inflammatory/infective in nature.	
		Multidisciplinary team meeting & treatment planning	Dietetics Clinic Appointment	T/Hosp1	9	$89.93		
			DISCHARGED to Home (23-day LOS)		1		Referrals to 'T/Hosp3' Radiation Oncology and 'S/Hosp B' Medical Oncology	
Treatment	Support & communication	Surgery						Being measured
		Radiation therapy	**Commenced Radiation Oncology Planning & Rx**	T/Hosp3	2	$90.93		
			Radiotherapy (lungs)	Rad Onc	8	$244.22	Lungs and skull, palliative intent	
			Radiotherapy (skull)	Rad Onc	0	244.22		
			Radiotherapy	Rad Onc	1	$244.22		
			Radiotherapy	Rad Onc	0	$244.22		
			Radiotherapy	Rad Onc	3	$244.22		
			Radiotherapy	Rad Onc	0	$244.22		
			Medical Oncology Clinic Appointment	S/Hosp B	0	$225.52		
			ADMITTED Directly from Medical Oncology Clinic Appointment - with Pneumonia	S/Hosp B	0	$16,343.09		
			Radiotherapy (lungs)	Rad Onc	7	$244.22		
			Radiotherapy (skull)	Rad Onc	0	$244.22		
			Completed Radiation Oncology Rx	Rad Onc	1	$244.22		
			DISCHARGED to Home	S/Hosp B	1			
Care after initial treatment & recovery	Support & communication	Transitioning from active treatment	Dietician Phone Clinic Appointment	S/Hosp B	1	$0.00		
		Follow-up care	Dietician Phone Clinic Appointment	S/Hosp B	5	$0.00		
		Preventing recurrence						
Managing recurrent, residual or metastatic disease	Support & communication	Signs & symptoms of recurrent disease						
		Managing recurrent disease						
		Multidisciplinary team						
		Treatment						
		Advance care planning						
	Support & communication	Palliative care	**ED ATTENDANCE** for Fevers and general malaise - Cellulitis on arm	S/Hosp B	0	$1,169.26		
			ADMITTED from ED to Hospital (24-day LOS)		0	$73,768.18	Pseudomonas Pneumonia secondary to aspiration. Sepsis	
			Geriatric ACAT Outpatient Review Appointment - Phone	S/Hosp C	1	$166.94		
End-of-life care	Support & communication	Multidisciplinary palliative care	Care Type Change from Acute to Palliative	S/Hosp B	22	$7,080.60	Statistical discharge - inpatient change of care type only i.e. a further 4-days LOS	
			RIP in Hospital		4			
					Total	$164,545.15		

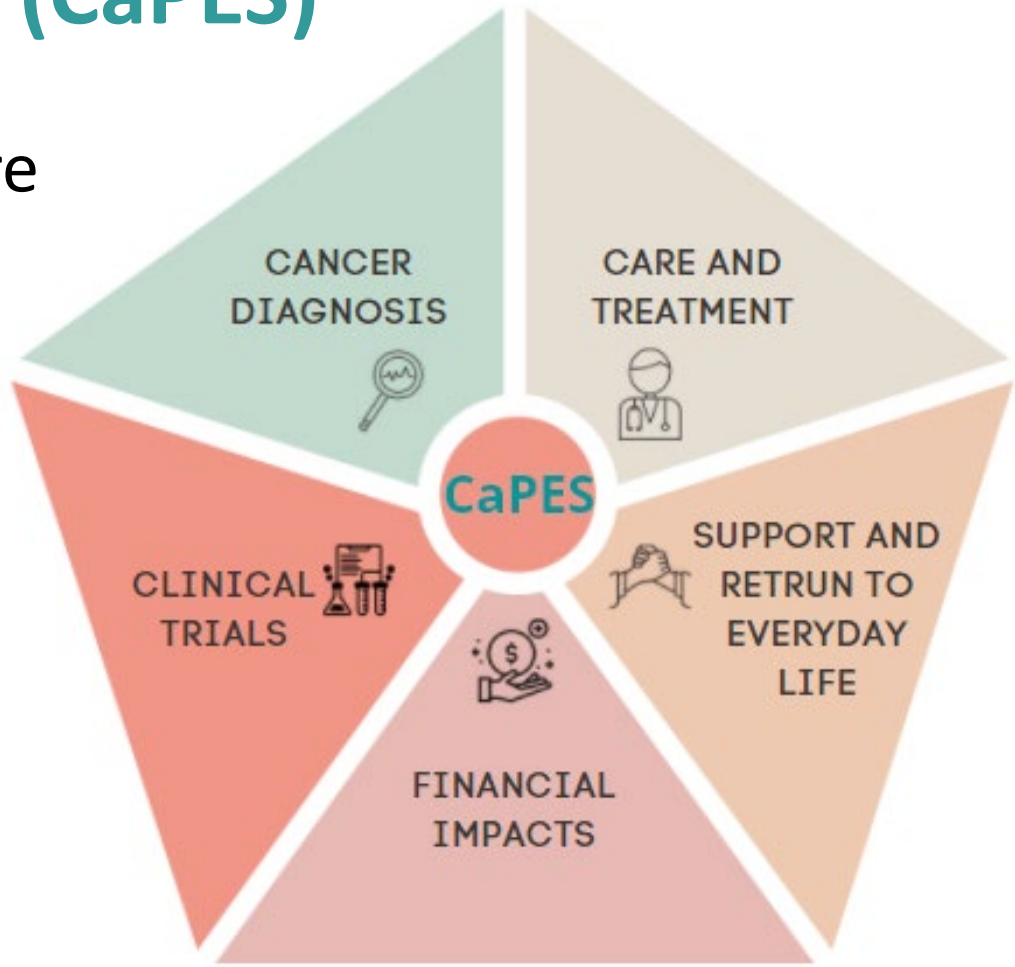
NB: Timeframe = Days between Encounters & if >14days font changes to red, with the exception of acceptable limits following review e.g. chemotherapy, outpatient follow-up

- 154 day patient journey
- (Day 0-37) 37 days from Referral to specialist
- (Day 98) 23 days & $55k spent for the patient to receive a Diagnosis & 1st treatment
- The patient's QoL did improve with Radiotherapy
- (Day 127) $75K spent in last few days on EoL care

Clinical outcomes, PROMs…and PREMs: Cancer Patient Experience Survey (CaPES)

Patients-driven care to achieve healthcare sustainability (2019, Sustainable Health Review)

- 11,500 WA cancer patients diagnosed in 2019
- All cancer types



Government of Western Australia
Department of Health

Continuous Improvement in Care cancer
Improving care through evaluating and effecting outcomes that matter most to patients

Reference: Department of Health. 2019. *Sustainable Health Review: Final report to the Western Australian Government*. WA: Department of Health

Next steps…

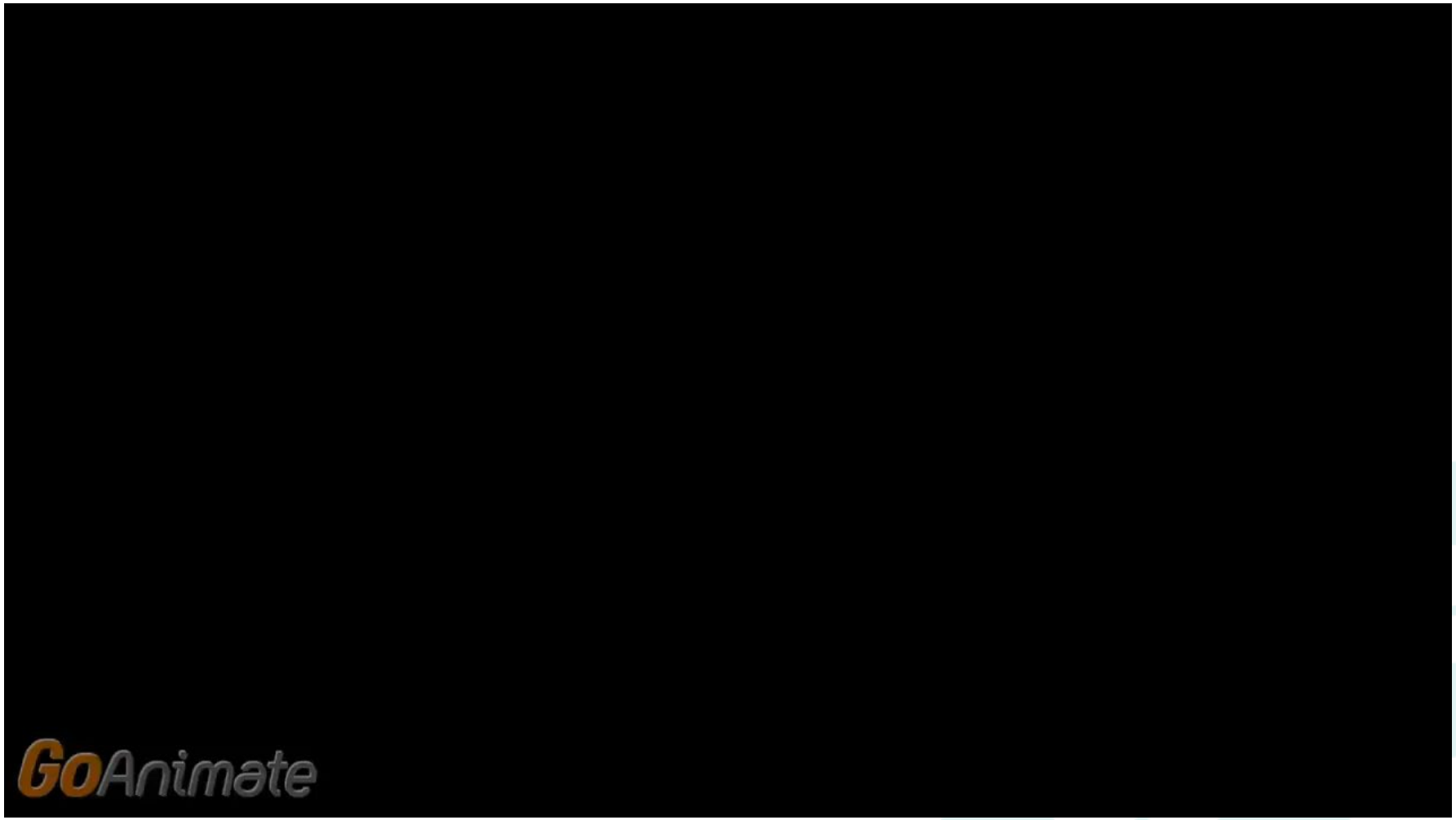
- Get political, policy, consumer and clinical buy-in – with common terminology
- Identify what data to collect and how to collect it
- Develop data visualisation and analytics to view data in real time (and changes over time) including variation
- Develop staff skills in how to measure outcomes, patient experience and resource use
- Monitor if programmes increase value /what is and isn't effective
- Facilitate better communication and dissemination about what works at a local and national level

VBHC implementation success

Source: Deeble Institute Perspectives Brief #14, Shadbolt et al 2020

Value-Based Healthcare - Delivering What Matters – Peter

Animation video was developed in 2018, by MetroNorth Hospital and Health Service in Queensland to illustrate VBHC https://vimeo.com/269104345



Acknowledgements

CIC Cancer project team (www.ciccancer.com) -
UWA
Murdoch University
Notre Dame University (Fremantle)

International Consortium for Health Outcomes Measurement (ICHOM) (www.ichom.org)

This work was carried out with the support of the Grants provided by the Cancer Research Trust and Cancer Council WA

Thank you