

Understanding variation in demand for gastrointestinal endoscopies through benchmarking across local areas

ABF PCSI

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A Story of Demand



Transparency to empower

“No matter how successful the system becomes in promoting safe, effective and efficient healthcare, the system's ability to perform, sustain and provide equitable healthcare will be challenged if it fails to understand variation in the demand for, and variation in, access to services”.

Dan O'Halloran

Senior Director System Performance

Wennberg International Collaborative Spring Policy Meeting 2017

Population Health



30% and 43%

Malignant cancers are the leading cause of death (30%) and the leading cause of premature death in Queensland (43%).

32%

of cancers are preventable.

2nd

Colorectal cancer is the 2nd leading specific cause of cancers in Queensland.

6% higher

Death-related outcome for colorectal cancer in Queensland compared to national benchmark (3rd highest state).

Source: 2016 Chief Health Officer Report

“Each year on average, about one in five Queenslanders is being admitted to a Queensland Hospital and this is growing. Our health systems are under pressure – hospital admissions are growing at an additional 70,000 every year and emergency department presentations by an additional 50,000 each year”

Dr Jeannette Young Nov 2016



Why look at Demand?



Start to question:

- Which Communities are accessing our services?
- Are there communities that are not accessing the service at all?
- Is the access to services equitable?

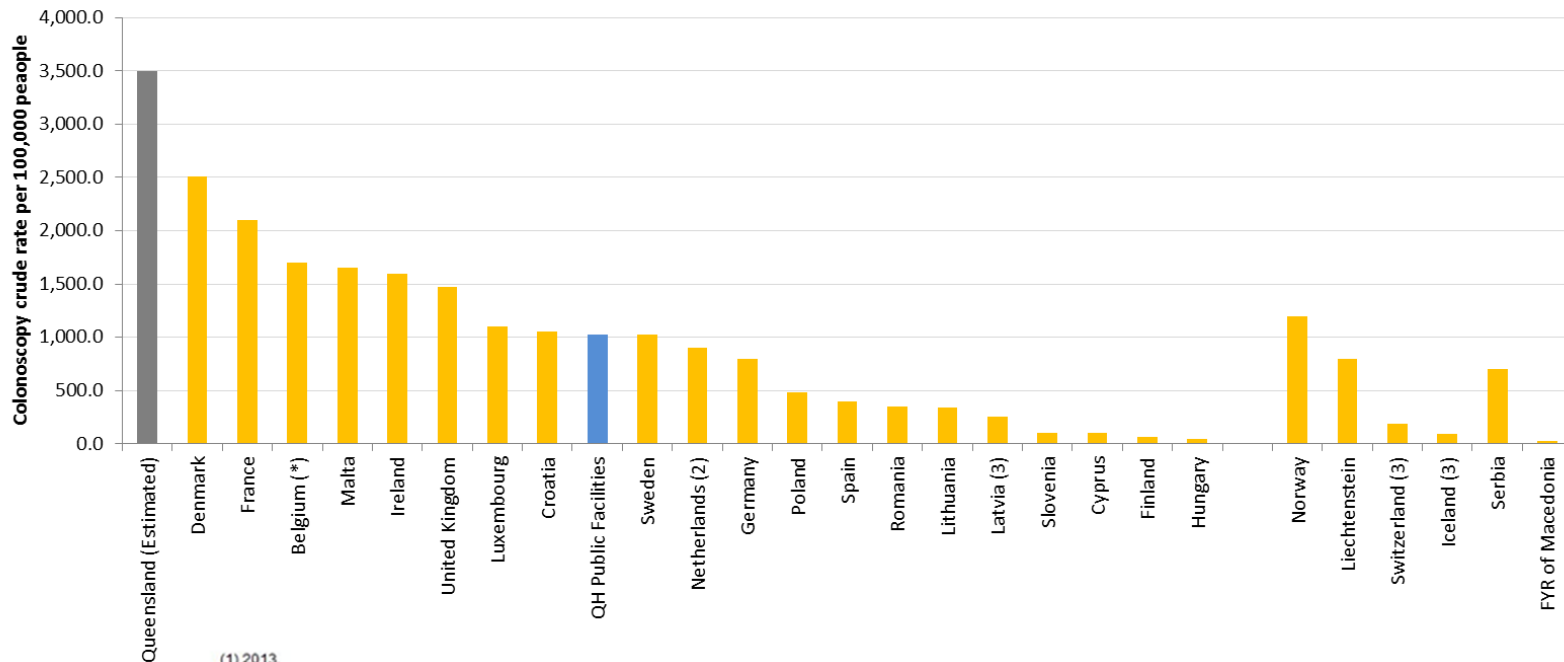
Understanding demand allows us to tailor our solutions to deliver:

- Better care,
- Better value,
- Better outcomes.



What is Demand?

International Comparison - Eurostat



(1) 2013.

(2) 2010.

(3) In-patients only.

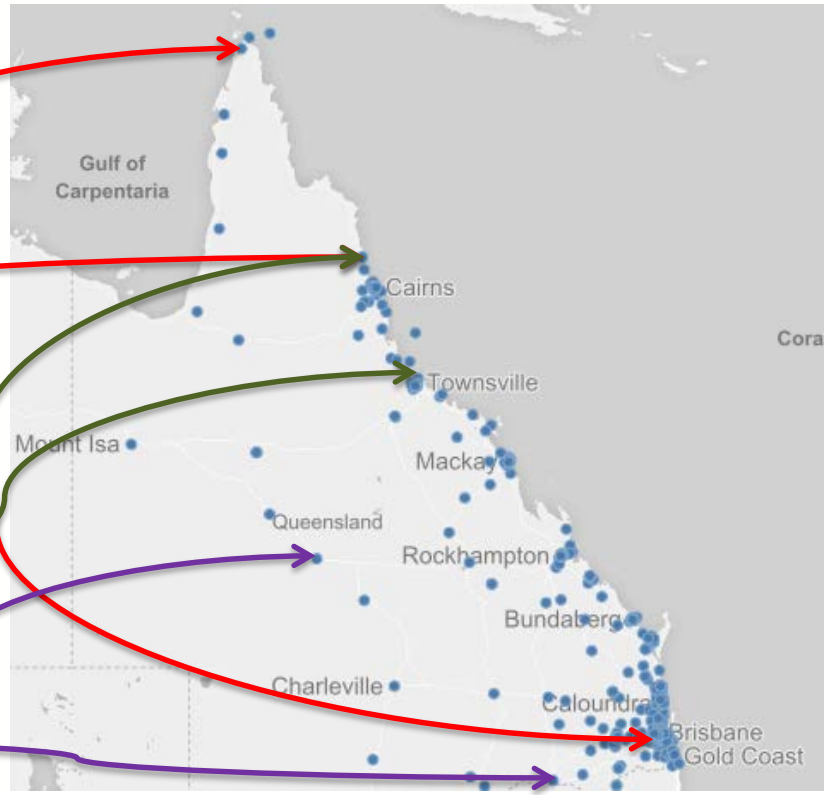
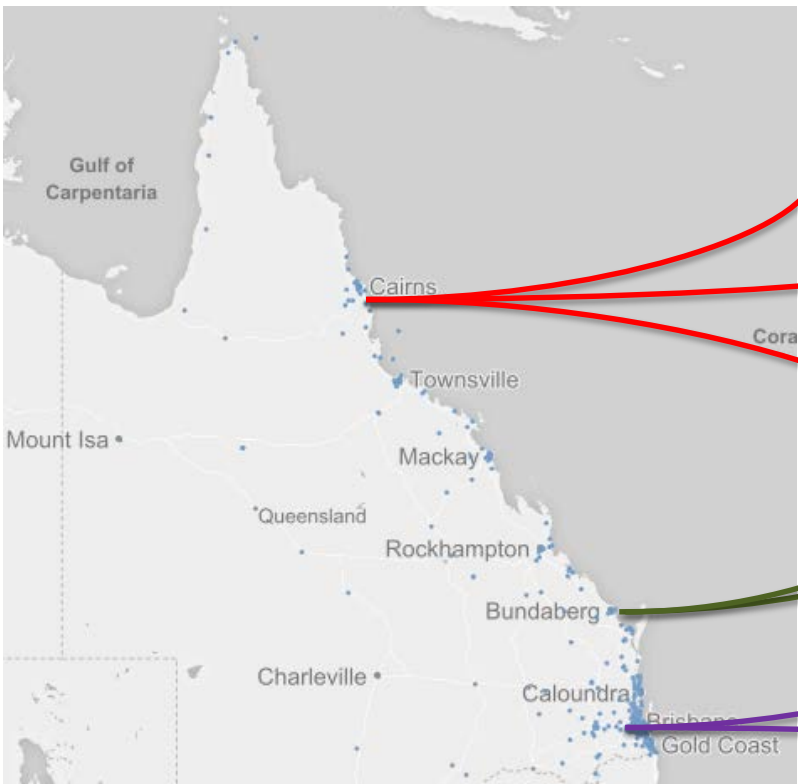
Data not available: Bulgaria, Czech Republic, Estonia, Greece, Italy, Austria, Portugal, Slovakia, Turkey.



Treating Hospital

Heat Map

Patient Place of Residence



Fairer Comparisons

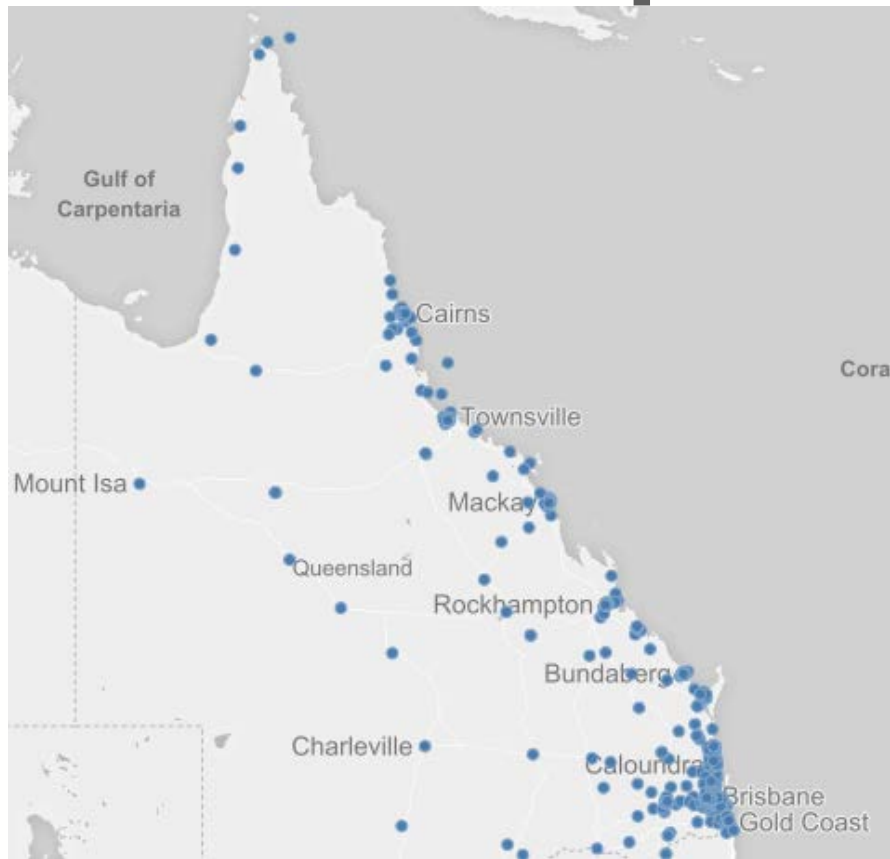
	<i>Crude Rate of demand</i>	<i>Age-Standardised Rate of demand</i>
<i>Indigenous Population</i>	1,533	2,645
<i>Non-Indigenous Population</i>	1,933	1,794

Source: Gastrointestinal Endoscopy Data Collection – extract date 19/06/2017

Demand is the number of service requests recorded as “Treated” between May 2016 and April 2017 and “Waiting” & “Booked” as at the 1st of May 2017

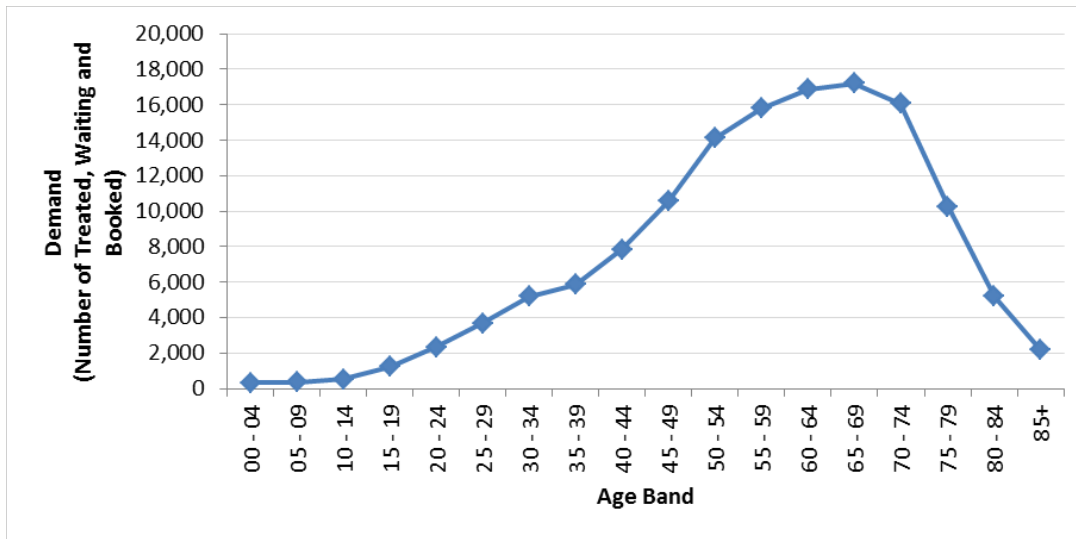
Rates are per 100,000 people

Heat Map



AGE

AIHW Report 2014 – reviewed 1990 – 2010 data, they identified that there has been a rising trend of colorectal cancer in Australia for people under age 40 for the last two decades

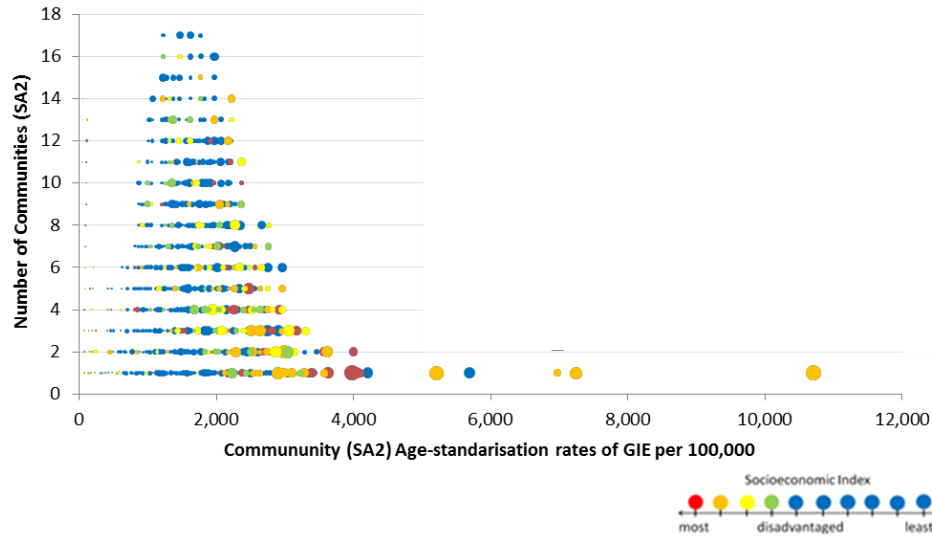


Under 40 years old

Early onset for colorectal cancer is increasing

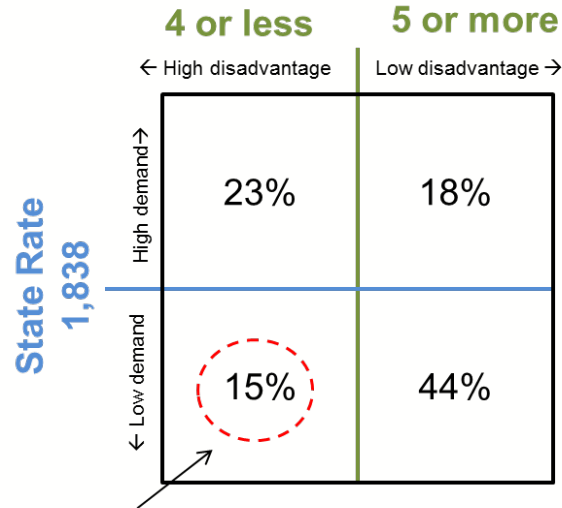
Socioeconomic Index (1)

Relationship between Demand and Socioeconomic Status



Socioeconomic Index (2)

Age-standardised rate of demand for gastrointestinal endoscopy services, per 100,000 people (Queensland communities only)



Communities with a high socioeconomic disadvantage and low demand for acute services account for 15% of Queensland's communities.

Private vs Public Market Share

Patient Type	Private Facility	Public Facility	Grand Total
Private In-Patients	69%	3%	72%
Public In-Patients	5%	23%	28%
Total	74%	26%	100%

44%

Uptake of private insurance in Queensland.

69%

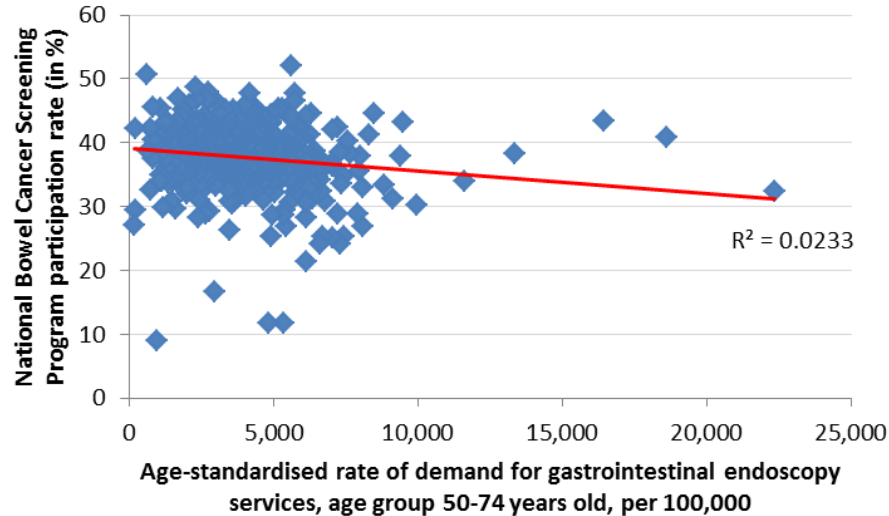
Private inpatients receiving a gastrointestinal endoscopy by a private provider

Source: APRA

Public Facility	Public Facility
% Private Inpatients	% Public Inpatients
12%	88%

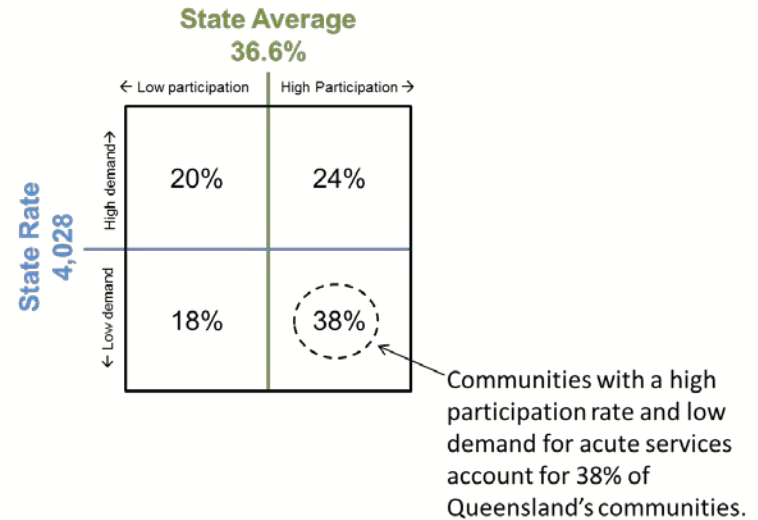
National Bowel Cancer Screening Program

- Correlation between Demand and NBCSP Participation



Age-standardised rate of demand for gastrointestinal endoscopy services, age group 50-74 years old, per 100,000 people

National Bowel Cancer Screening Program Participation Rate




Demand Top 10% - Sample Subset

HHS / Community (SEI)	Total Population	ASR Cat 4, 5 & 6	ASR											Principal Treating Facility (% from community treated at)	ASR Age group 50-74 Cat 4, 5 & 6	NBCSP Participation Rate (%)	% of Inpatients treated as Public Patients in a Private Facility	% of Inpatients treated in a Private Facility					
			1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	11,000						12,000	13,000	14,000	15,000	
Cairns and Hinterland HHS	249,227	2,173	•												1,274		0%	76%					
SA2 1 (3)	11,086	2,961	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Cairns Hospital	94%	6,478	34	0%	84%
SA2 2 (1)	6,176	2,945	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Cairns Hospital	98%	7,911	29	0%	77%
SA2 3 (1)	5,447	2,932	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Cairns Hospital	97%	7,970	36	0%	84%
SA2 4 (9)	12,574	3,346	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Cairns Hospital	98%	8,485	45	1%	86%
SA2 5 (1)	6,947	2,803	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Cairns Hospital	94%	6,573	34	0%	78%
SA2 5 (4)	6,358	3,225	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Cairns Hospital	97%	7,330	34	0%	87%
Central Queensland HHS	229,256	1,577	•												3,605		2%	61%					
SA2 6 (1)	7,753	4,104	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Rockhampton Hospital	88%	9,143	31	4%	52%
SA2 7 (7)	13,858	5,008	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Gladstone Hospital	81%	13,342	38	0%	55%
SA2 7 (1)	3,078	2,131	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Rockhampton Hospital	90%	6,992	37	7%	33%
SA2 8 (5)	8,586	3,419	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Rockhampton Hospital	94%	7,323	39	3%	63%
SA2 9 (5)	12,566	1,635	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			4,226		1%	43%
SA2 10 (5)	4,092	3,464	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Longreach Hospital	93%	9,475	43	0%	33%
Darling Downs HHS	278,166	2,011	•												4,259		5%	62%					
SA2 11 (3)	10,437	2,654	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Kingaroy Hospital	72%	5,748	48	2%	51%
SA2 12 (1)	9,728	2,816	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Kingaroy Hospital	69%	5,827	41	4%	39%
SA2 13 (1)	9,754	2,915	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Kingaroy Hospital	60%	6,272	41	4%	47%
SA2 14 (2)	10,264	10,708	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Toowoomba Hospital	94%	22,346	32	8%	63%
SA2 15 (3)	4,097	2,613	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Warwick Hospital	51%	5,029	30	5%	40%
SA2 16 (2)	5,612	2,960	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Stanthorpe Hospital	71%	7,239	43	2%	51%
SA2 17 (2)	15,505	3,615	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Warwick Hospital	71%	7,658	38	2%	42%

Key Questions

- *Are we able to start to influence the community demand?*
- *Why are communities not accessing or accessing?*
- *Is there a public health message that needs to be communicated to the community and maybe the GPs?*
- *Are people electing a non-invasive screening test instead of seeking a referral for the more invasive GIE?*
- *Are people using the private sector to get their GIE?*
- *Where will demand impacting hospitals?*



“Numbers have an important story to tell. They rely on you to give them a clear and convincing voice.”
Stephen Few

