



Impact of Staffing on Peri-Operative Surgical Quality

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Trinity Health Michigan

\$4.74B

In Revenue

\$232.2M

Total Community Impact*

9

Hospitals

34

Medical Centers

23

Urgent Cares

17

Senior Living Communities

401

Physician Practices

26,918

Employees

4,019

Credentialed Physicians

1,710

Credentialed Clinicians

1,707

Senior Living Residents

701K

Attributed Lives

435,171

ER Visits

90,891

Surgeries (IP/OP)

10,464

Births

197K

Home Care Visits

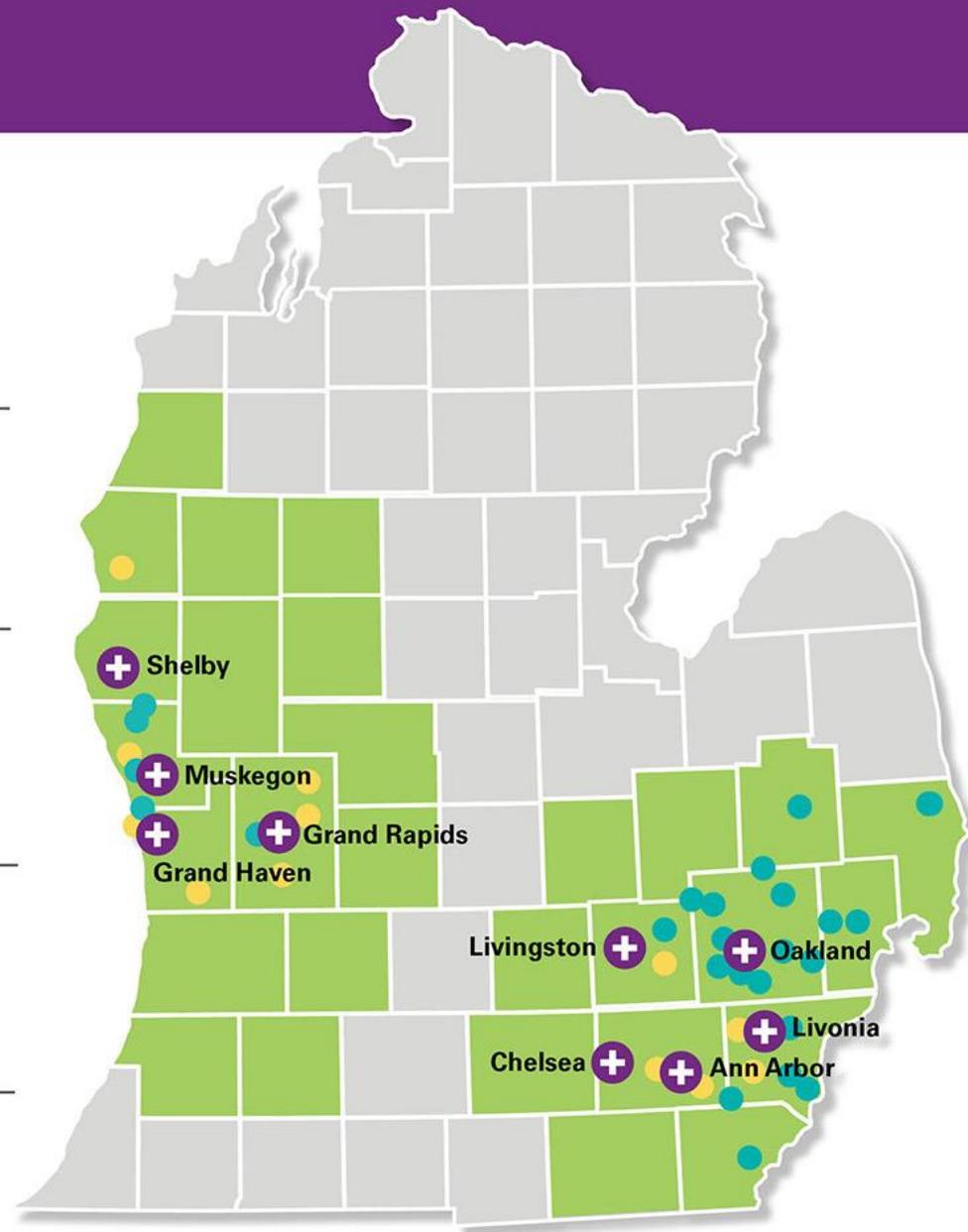
69K

Days of Hospice Care

*Community Impact represents the total of IRS-defined community benefits plus investments making an impact in the community that the IRS does not consider.



FY24 FINANCIAL RESULTS do not include total revenue and community benefits from senior living communities and home care / hospice. Last updated: January 2025



+ Hospital
 ■ Counties Served
 ● Medical Centers
 ● Continuing Care



The Perioperative Staffing Crisis

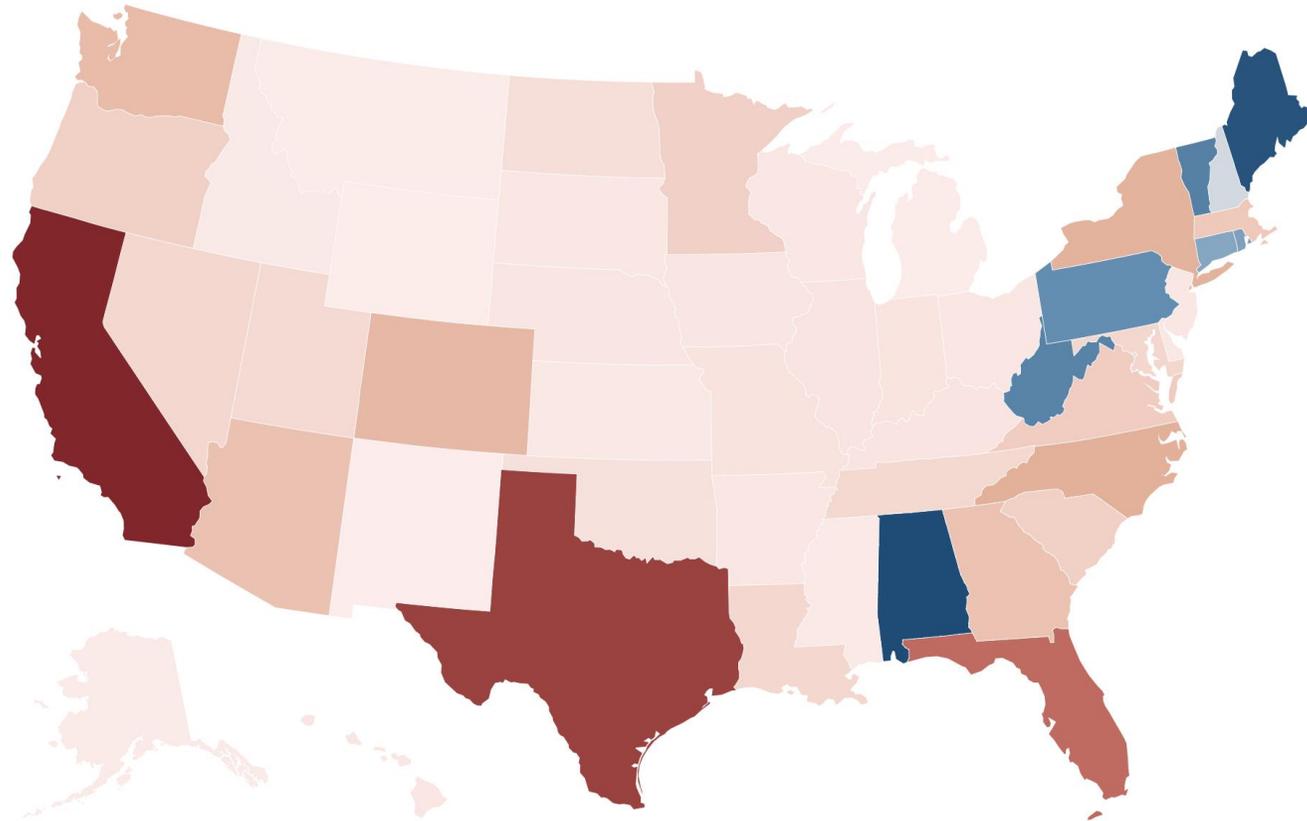
Workforce in the Perioperative Environment – not just nurses!

- Preop/PACU Nurses
- OR nurses (often specialty specific)
- Surgery Technicians (scrub tech)
- CRNA's and Anesthesia Assistants
- Anesthesiologists
- Central Sterile Processing technicians
- EVS (environmental services)
- Anesthesia technicians
- Rad techs, Pharmacists, perfusionists
- APPs (Advanced Practice Professionals = PAs and NPs)
- Surgeons

In 2025, expected to be short over 80,000 nurses and 42/50 States will remain short in 2030

Additional RNs Needed by State for 2030

The difference in current RN population and needed RN population for 2030 to maintain current nurse-to-population ratios



Top 5 States Where RN Demand is Expected to Be Met in 2030

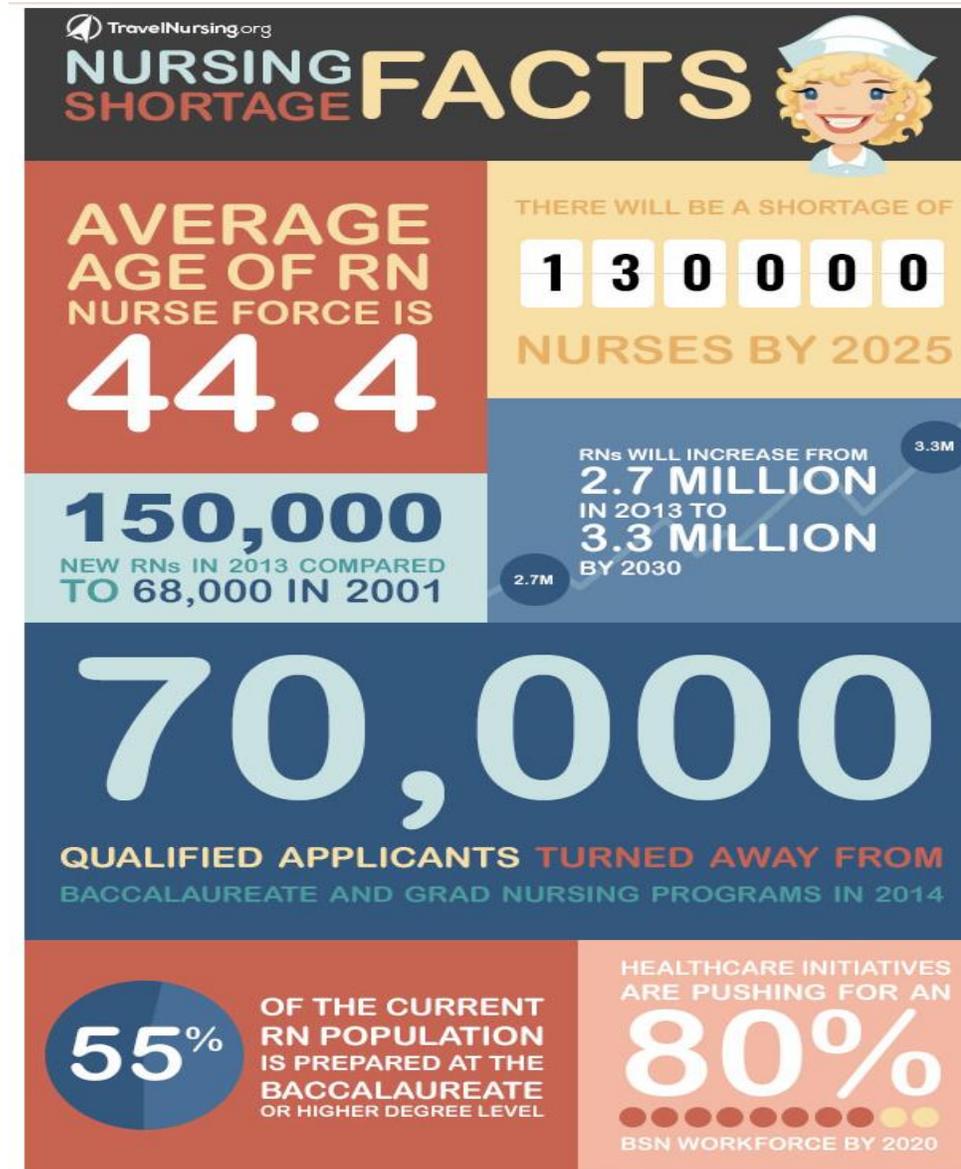
State	Projected RN Surplus/Deficit
Vermont	105%
Maine	103%
Rhode Island	102%
West Virginia	102%
Alabama	101%

Worst 5 States Where RN Demand is Not Expected to Be Met in 2030

State	Projected RN Surplus/Deficit
North Dakota	84%
Colorado	86%
Texas	86%
Nevada	88%
Florida	88%

Nurse.org publication

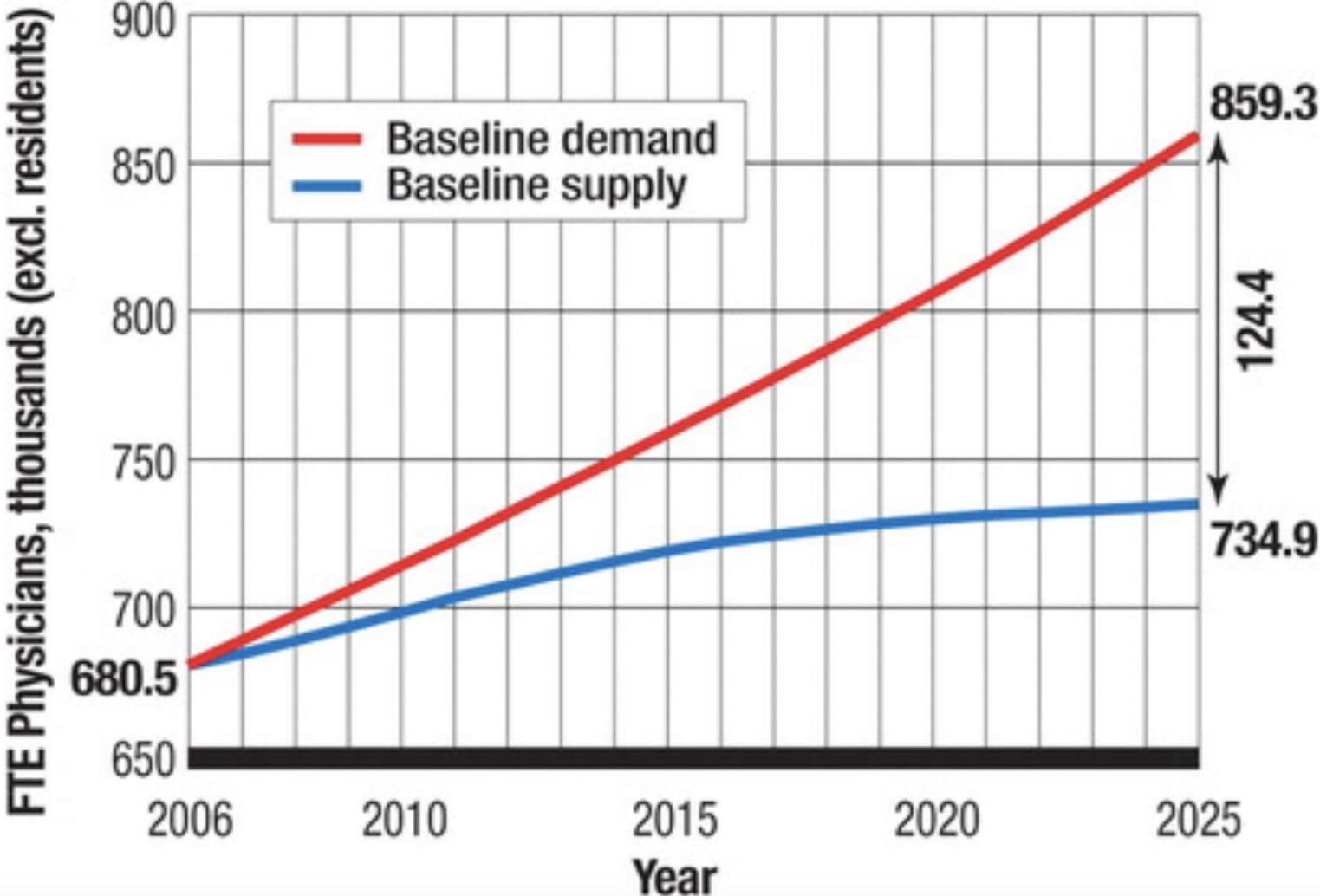
Despite ongoing nursing shortage, 70,000 qualified applicants continue to be turned away from nursing school programs



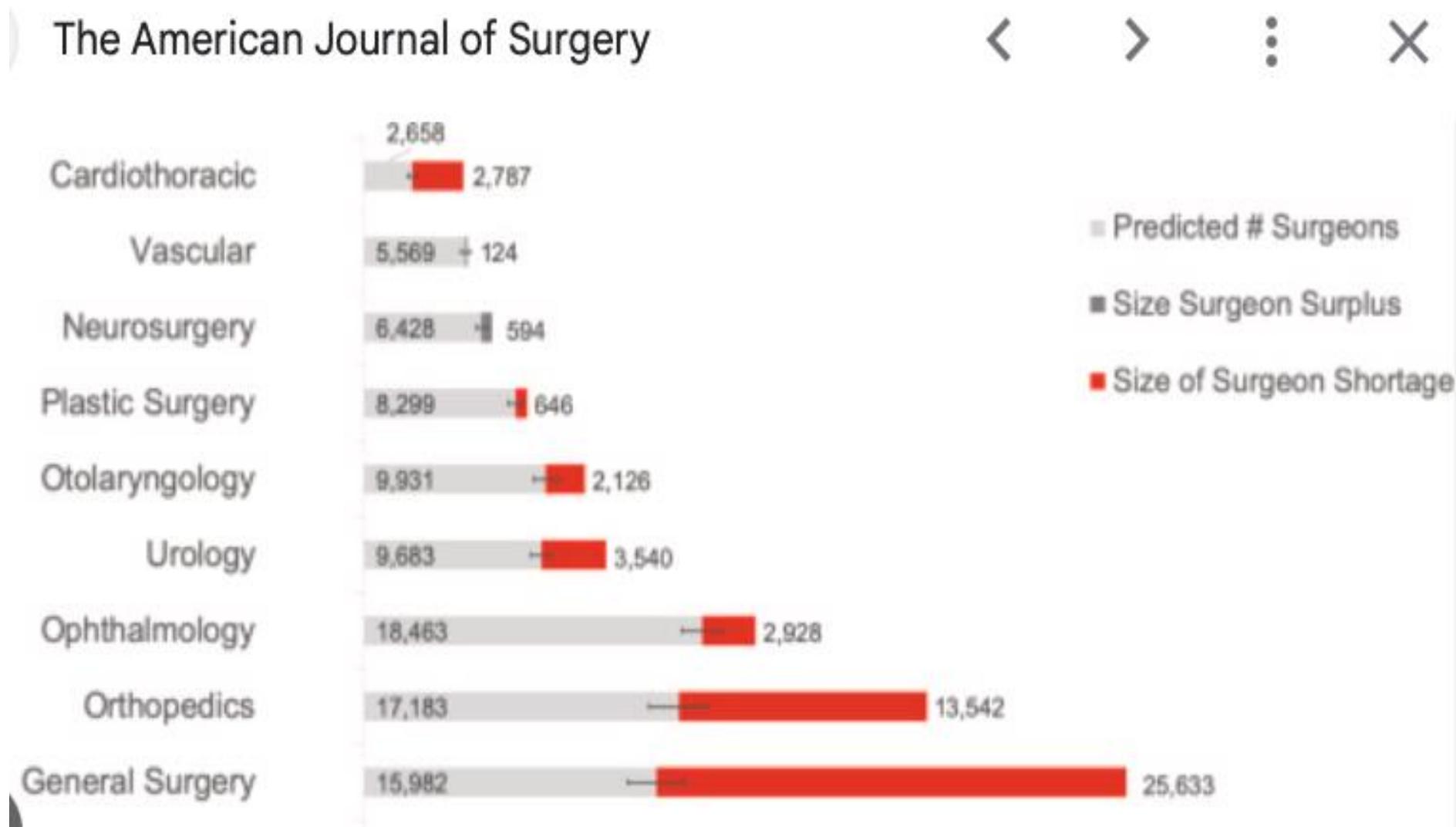
Turnover of Surgery Techs, Surgery RNs and Central Sterile Procedure Techs (THMI)

	Operating Room RN	Surgery Techs	Central Sterile Processing
First Year Turnover	38.3%	42.9%	43.2%
90 day turnover	46.7%	55.6%	14.3%
Voluntary turnover	9.2%	13.3%	15.9%
Orientation timeline	9 – 12 months	9 months	3 – 6 months

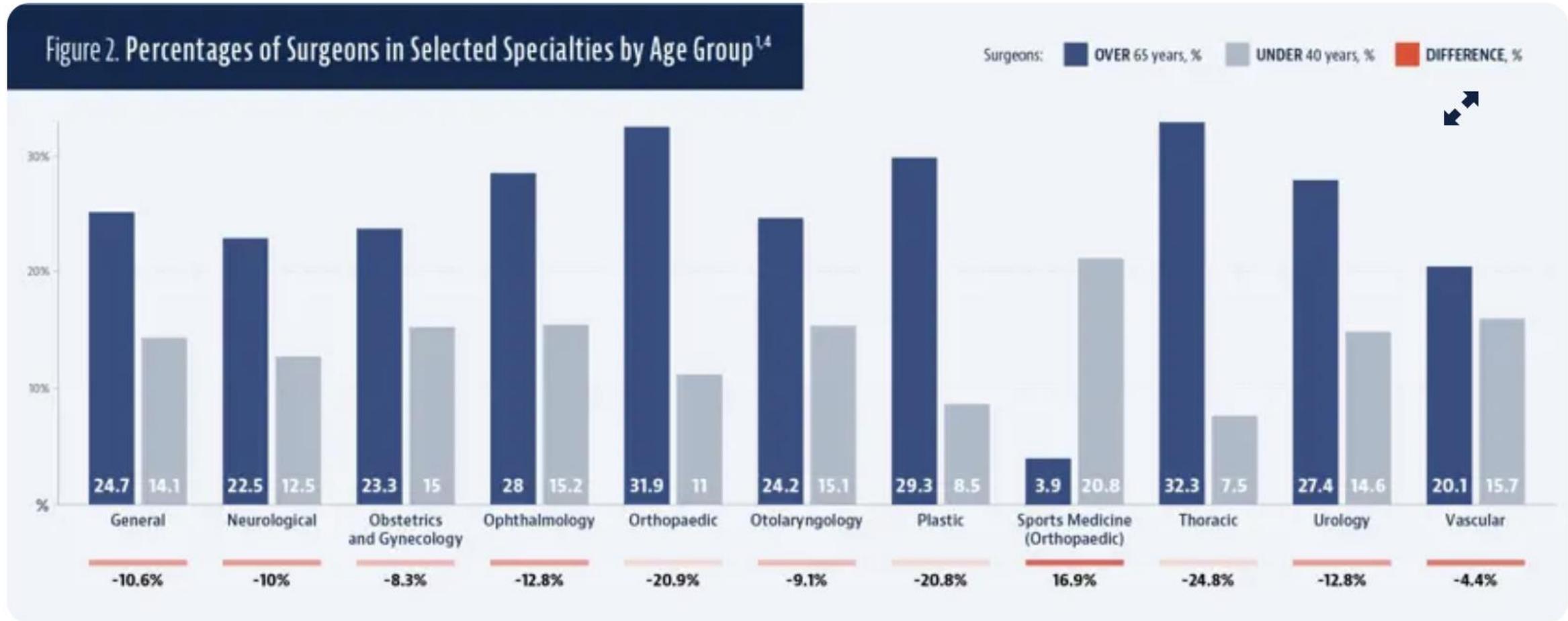
Physician shortage projected at 124,000 by 2025



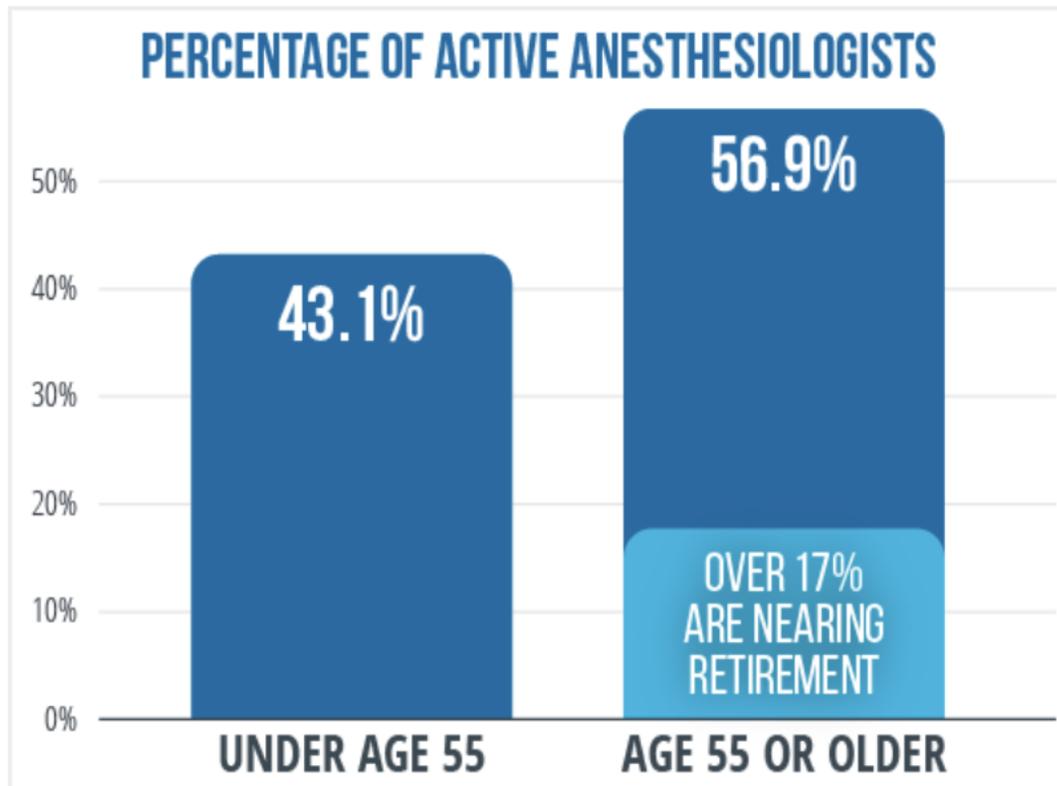
Projected surgeon shortages predicted by 2050: general surgeons projected to be > 25,000 short



Surgery Specialty Distribution Over 65 years & under 40 years

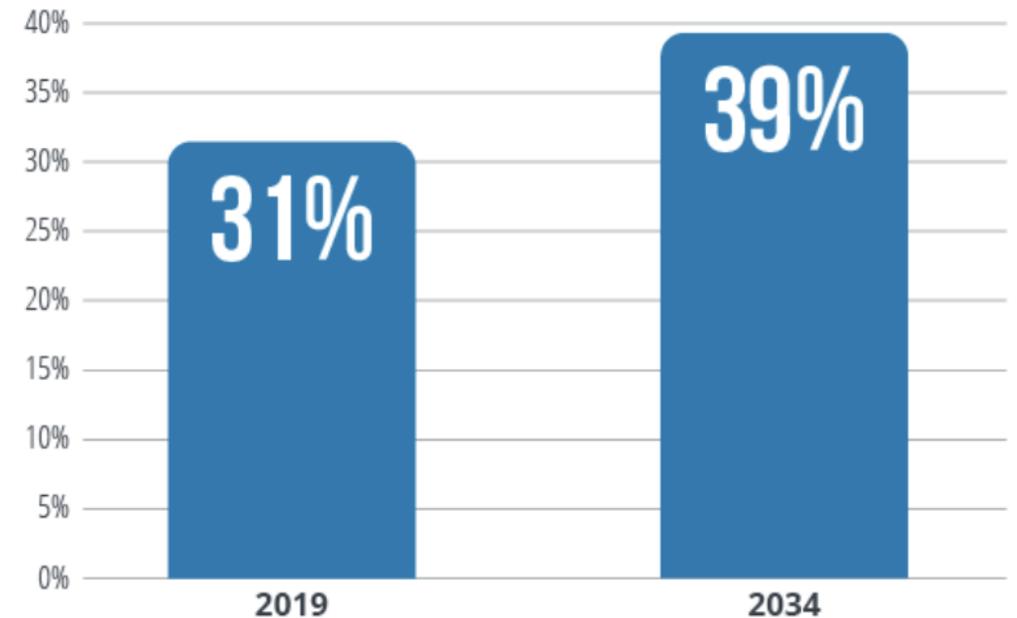


Anesthesia workforce diminishing in the perioperative space as providers age and there is an increasing demand in not only the inpatient OR's but also endoscopy, cath lab, IR, & ASC's



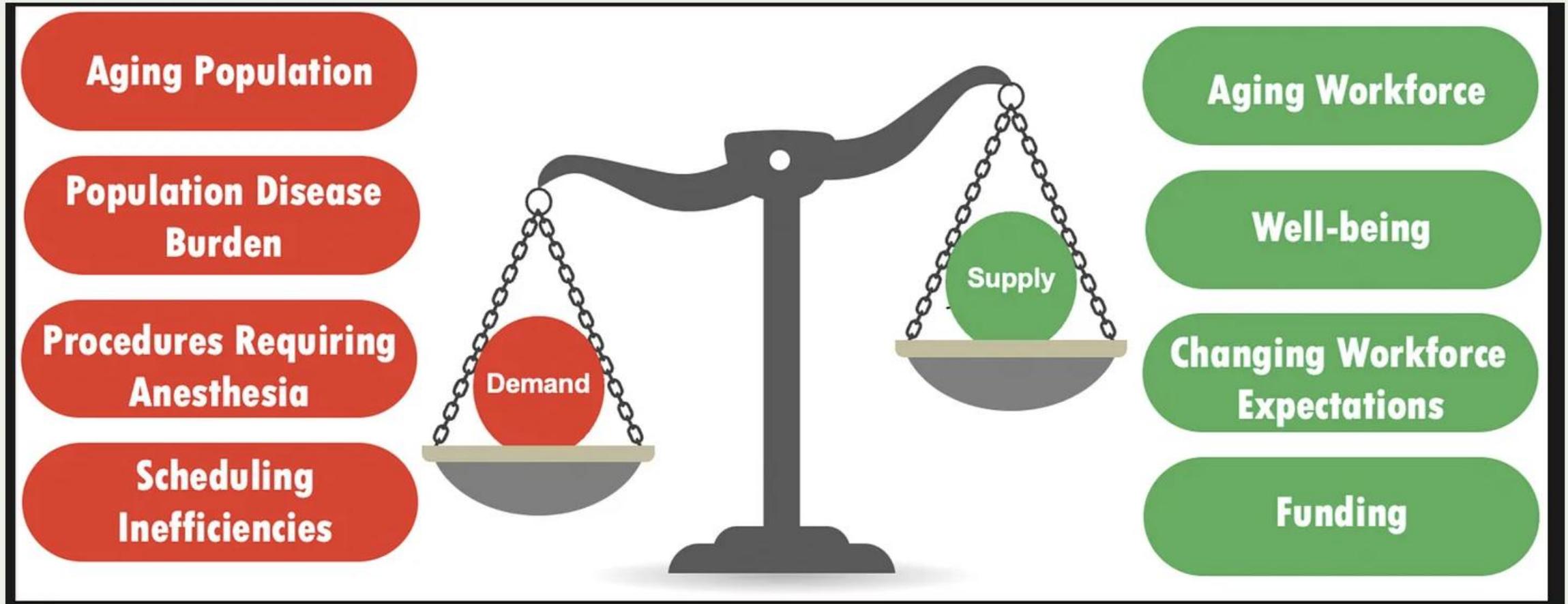
THE DEMAND FOR SURGICAL SERVICES BY THOSE 65 AND OLDER

2019 - 2034



THERE IS A **3%** INCREASE IN THE DEMAND FOR SURGICAL SERVICES ANTICIPATED OVER THE NEXT DECADE.

Factors which are outweighing demand for anesthesia Providers over actual supply



How is quality of care & safety affected by staffing shortages, staff turnover, agency staff and aging staff? CONSIDER:

- Serious safety events periop
- Sub-specialty OR nursing teams compromised
- Central sterile processing errors
- Preoperative patient prep e.g. ERAS and medications
- Surgical site infections
- Operational KPIs – on time starts, room turnover
 - Nurses need to practice at the top of their license
- PACU congestion & holds
- OSHA related injuries – sharps & safe patient movement

Heavy Workload Impact on Nurses and Patient Safety



Impact on Nurse	Resulting Issues	Impact for Patient
Less time	Bypassing safety protocols and incomplete communication	Lapses of continuity in treatment
Less attention to details	Mistakes and brain strain	Risk of over- or under-medicating patients
More stress	Reduced job performance	Greater risk of medical errors
More shortcuts	Compromised quality of patient care	Risk of infections and compromised data security

Example of Nursing tasks for Colorectal Enhanced Recovery Protocol – consider prepping 2 simultaneous patients and distractions which ensue

- Physical admission, weighing and bedding
- Epic intake – history & med reconciliation
- Confirm bowel prep, oral Abx, carbohydrate load
- Chlorhexidine wipes
- Oral meds – Tylenol, Celecoxib, Alvimopan
- Place IV lines
- Glucose POC (and other relevant labs)
- IV meds to bedside – Kefzol, Flagyl
- Nurse sedation to assist Anesthesia blocks (TAP or Epidural)
- Active warming with Bair Hugger
- Other special considerations

Patient & colleague safety further comprised by staffing shortages

Patient Safety

United States



440,000

Preventable Patient Deaths
from medical errors.

Colleague Safety

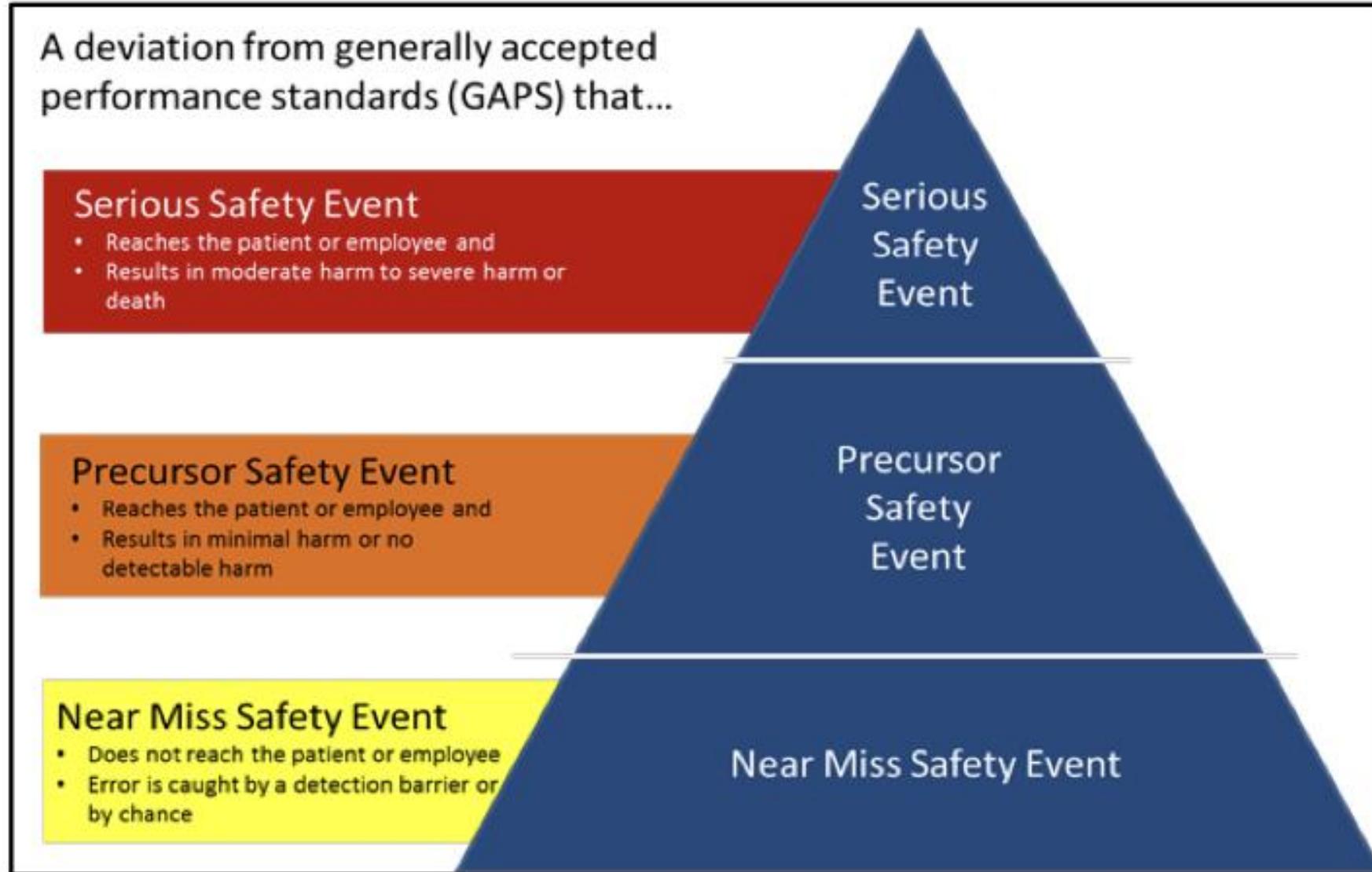
United States



582,800

Injuries
to health care workers.

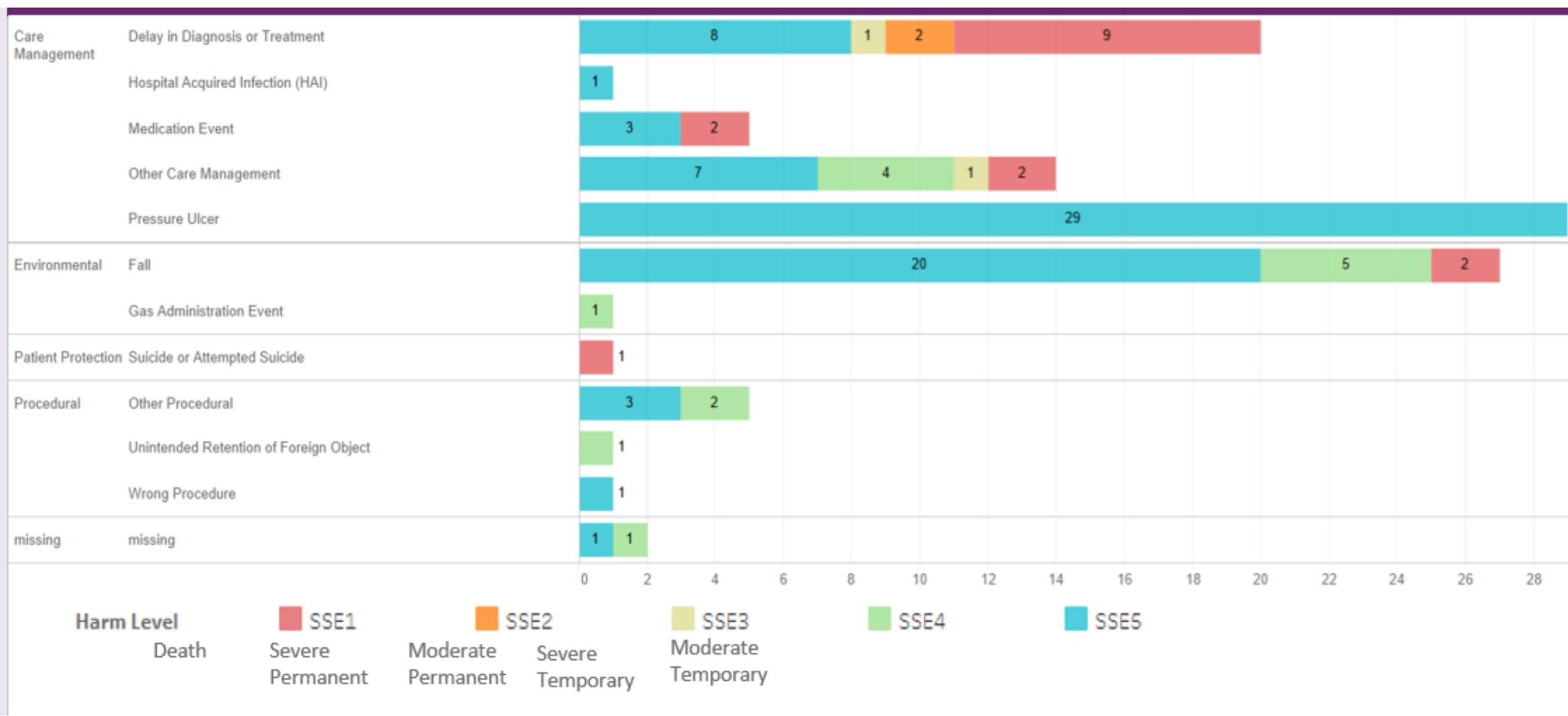
Safety Event Classification Pyramid



Safety Event Classification Levels of Harm

	Code	Level of Harm	Patient Harm Descriptions
Serious Safety Event	SSE 1	Death	A deviation in GAPS resulting in death.
	SSE 2	Severe Permanent Harm	A deviation in GAPS resulting in critical, life-changing harm with no expected change in clinical status; includes events resulting in permanent loss of organ, limb, or vital physiological or neurologic function.
	SSE 3	Moderate Permanent Harm	A deviation in GAPS resulting in significant harm with no expected change in clinical condition yet not sufficiently severe to impact activities of daily living or business functioning; includes events that result in permanent reduction in physiologic reserve, disfigurement, and impaired or aided sense of function.
	SSE 4	Severe Temporary Harm	A deviation in GAPS resulting in critical, potentially life-threatening harm yet lasting for a limited time with no permanent residual; requires prolonged transfer to a higher level of care/monitoring, transfer to a higher level of care for a life-threatening condition, or an additional major surgery, procedure, or treatment to resolve the condition.
	SSE 5	Moderate Temporary Harm	A deviation in GAPS resulting in significant harm lasting for a limited time; requires a higher level of care/monitoring or an additional minor procedure or treatment to resolve the condition.

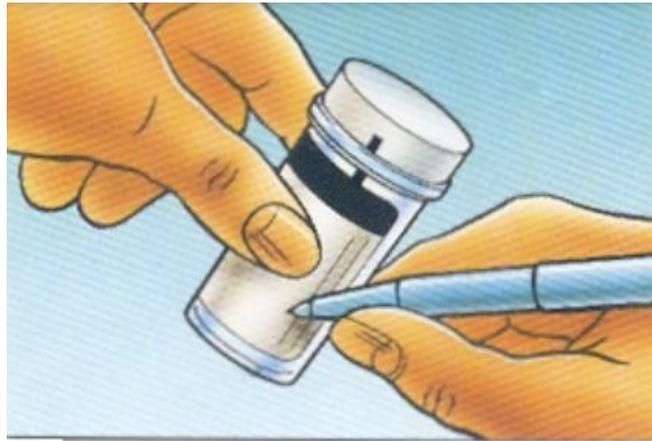
SSE categories: Example of a One Year Summary



Medication Error: Insulin administration



Mismanaged specimens or lost specimens



- Intraop team communication and nursing and scrub tech experience key
- Specimen handoff
- Read back during hand over process including name, type, location of retrieval
- Appropriate handling of specimen
- Transport to lab
- Lab management

Other perioperative events which should be never events

- Retained foreign bodies (e.g. sponge or clip)
- Wrong procedure or wrong side procedure
- Surgical site infection - not adhering to strict infection prevention protocols
- Delayed response to patient exhibiting hypotension or hypoxia due to alarm fatigue or absent alarms (preop and PACU)
- Contaminated sterile packs
- Empty oxygen tank

Five Ways to Ease Staffing Shortages Now and into the Future (per American Hospital Association)

1. Customize retention strategies
2. Lean more on advanced practice nurses and LPN teams
3. Strive to become a Millennial/Gen Z Destination
4. Integrate workforce planning with strategic planning
5. Create your own solutions

More specific strategies for improving OR staffing & workload

- Align with colleges, universities and tech schools
 - Sponsored education programs at schools
 - Registered apprentice programs for surgery techs in your hospital
 - In house training of CSP technicians
- Aggressive recruitment strategies
 - Posting broadly including Linkendin
 - Local school campaigns
- Flexible scheduling – meet work life balances
- Add nursing techs and assure that EVS & transport support OR areas so that nurses can provide top of license work
- Overlap of night and day shift to launch first case starts

And finally....continue to stress safety behaviors and tools at daily huddles and educational sessions



Prepare for the Process



Attention to Detail

Behaviors

Tools

 **Prepare for the Process and Manage the Task**

- Daily Huddles
- Timeouts/Briefs/Debriefs
- Score the Risk

 **Support the Team**

- Peer Checking
- Peer Coaching
- 200% Accountability

 **Communicate Clearly**

- 3-Way Repeat Back
- Phonetic/Numeric Clarification
- Share Information using SBAR

 **Questioning Attitude**

- Stop the Line
- Validate and Verify
- Speak up for Safety using ARCC

 **Attention to Detail**

- Self-Check with STAR
- Make Things Visible

**THANK YOU
SO MUCH**

YOU ARE VERY MUCH APPRECIATED!