

Reimagining Hospital Capacity with AI to Solve Access Challenges and Boost ROI

Jason Harber, BS

Vice President, Inpatient Flow
LeanTaaS

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The Formula for Operational Excellence: How LeanTaaS Optimizes Inpatient Capacity, Throughput, and Staffing

Jason Harber
Head of Inpatient Flow Business

The problems are **real**
and they are **significant**

\$12

BILLION

Lost annually from
ED boarding

\$10–20

THOUSAND

Lost per declined
transfer

\$1.8–2

THOUSAND

Lost per patient, per
day from long stays



Historical approaches have reached their limits



BED MANAGEMENT SYSTEMS



NEW CONSULTING PRACTICES

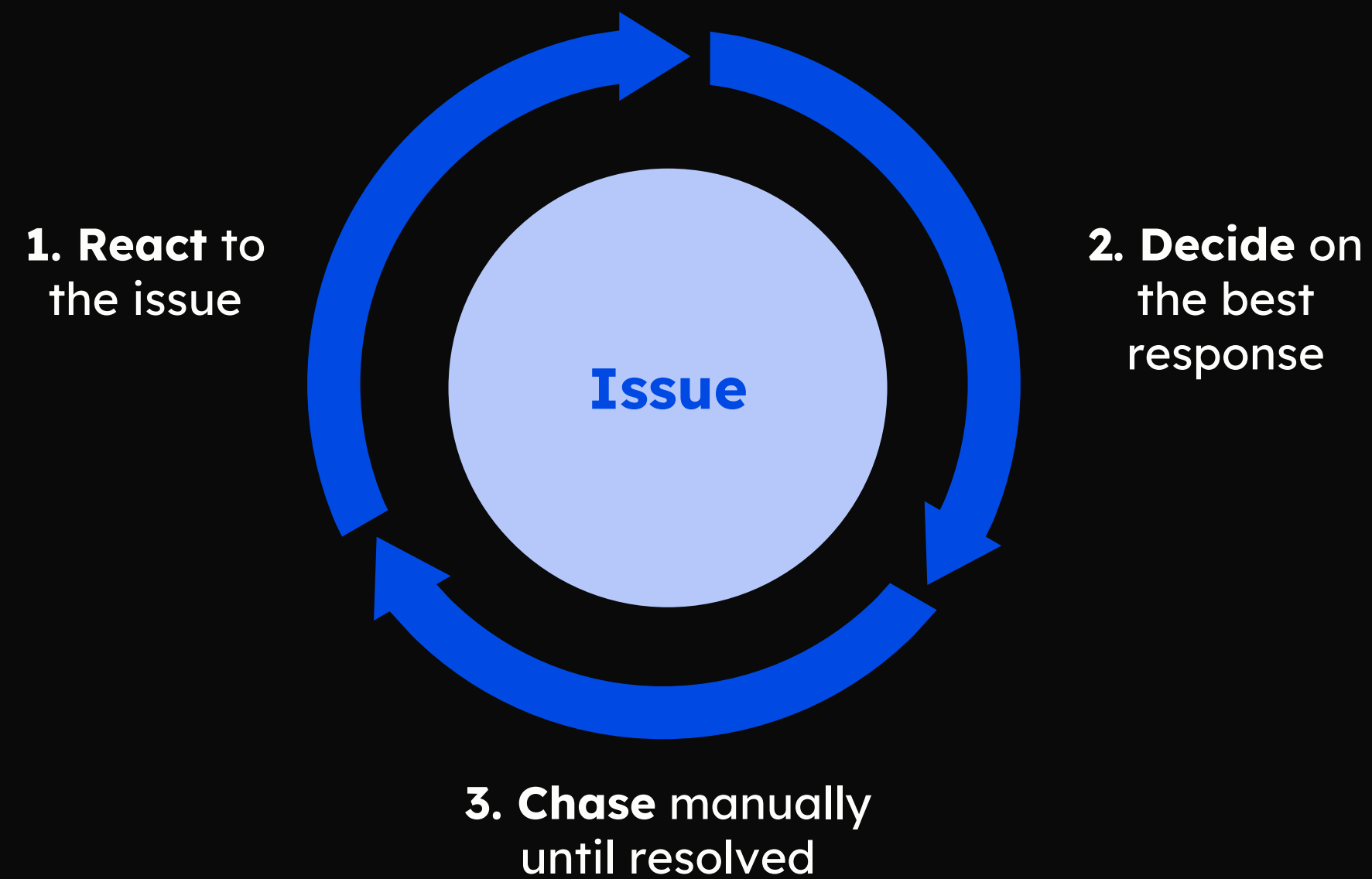


HOSPITAL COMMAND CENTERS



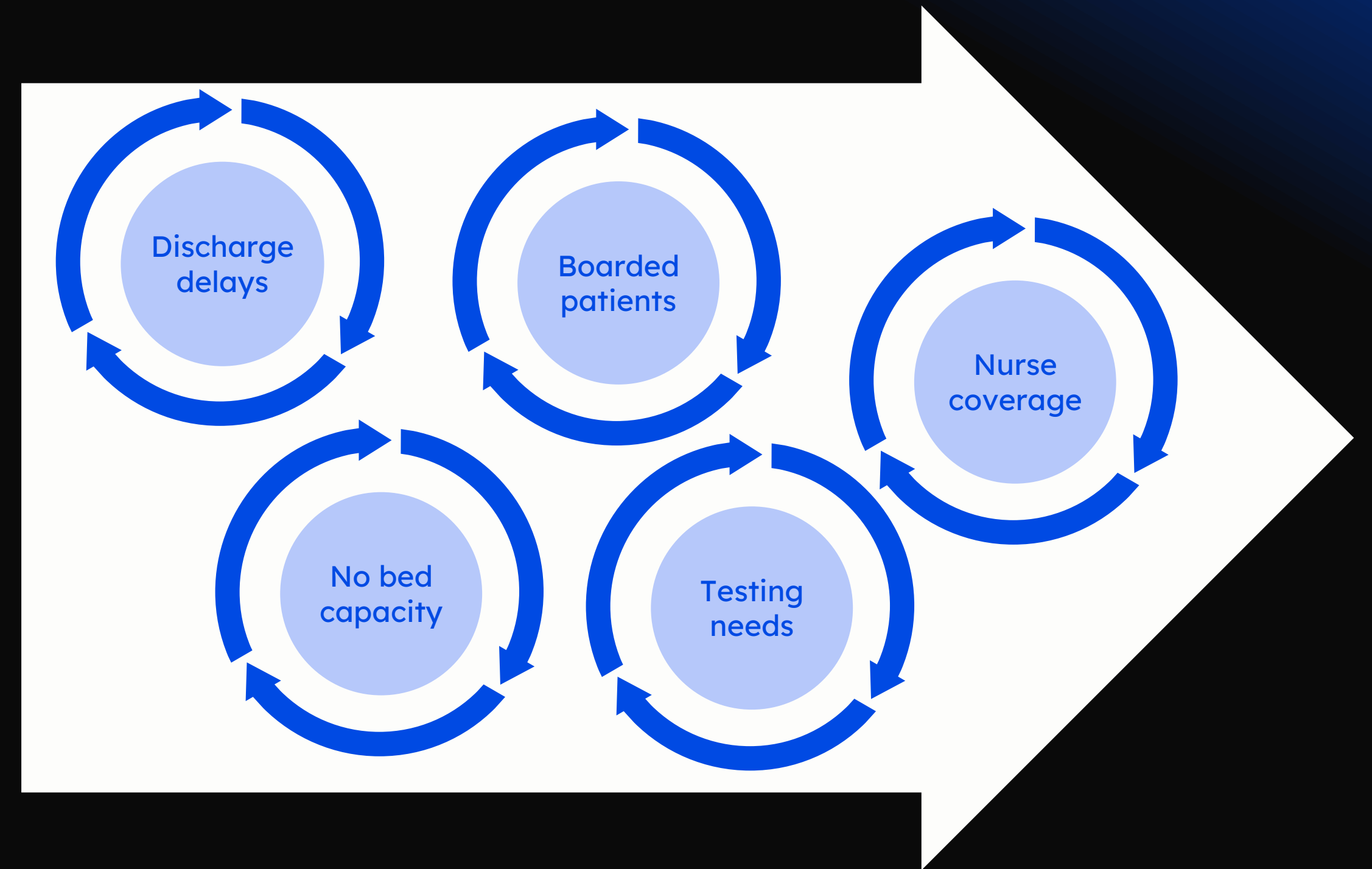
Reactive approaches have cascading effects

CURRENT APPROACH TO ADDRESSING ISSUES...



Individuals and teams react to each issue as it arises

...IS UNSUSTAINABLE AT PACE AND SCALE



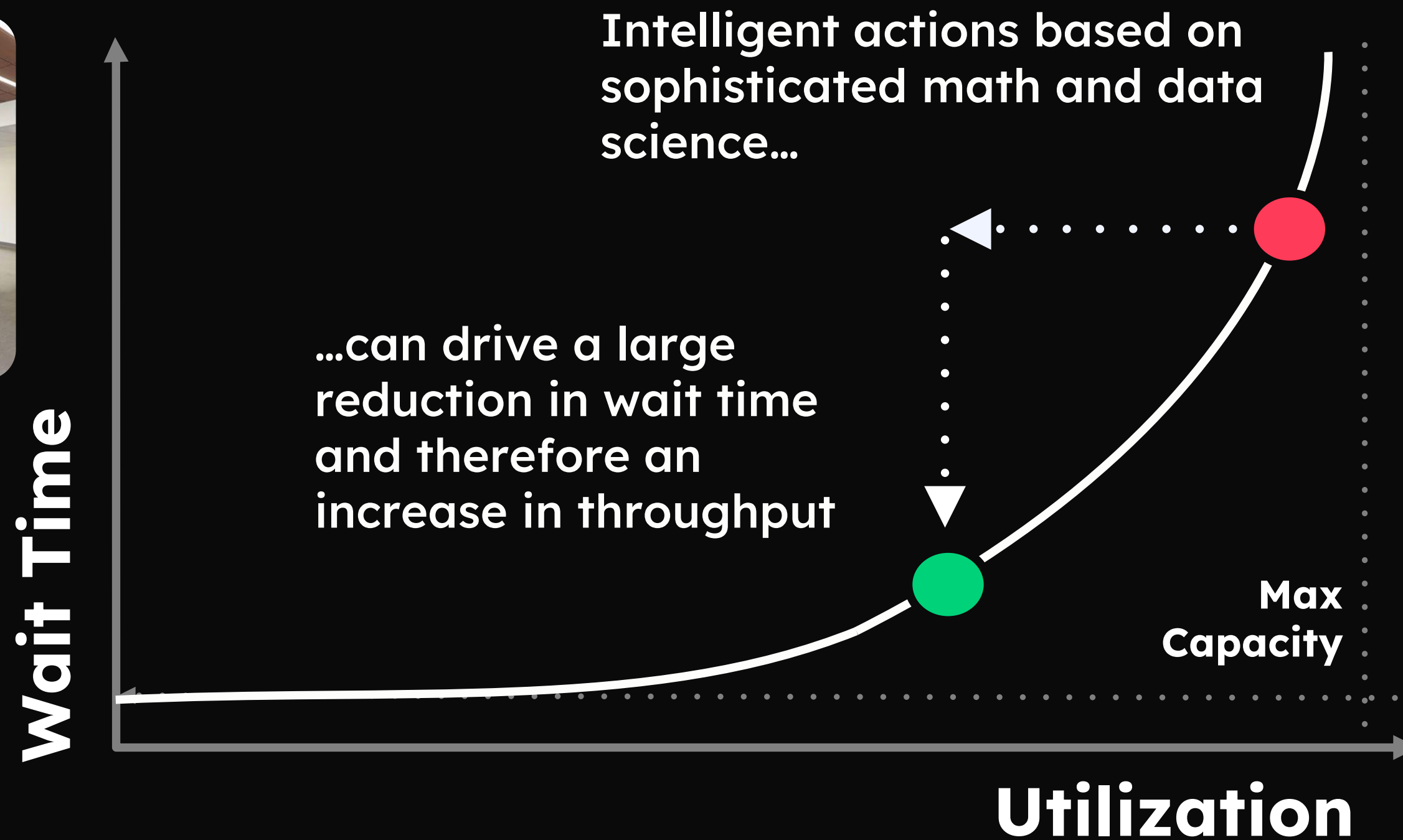
Volume of issues overwhelm the staff and paralyze throughput



Unlocking capacity will help – but doing so is a hard math problem

Weekends

ED Boarding Time: 2 hours
High Capacity Status: 3 hours
of Patients Denied Care: 10
Available Beds?: Yes

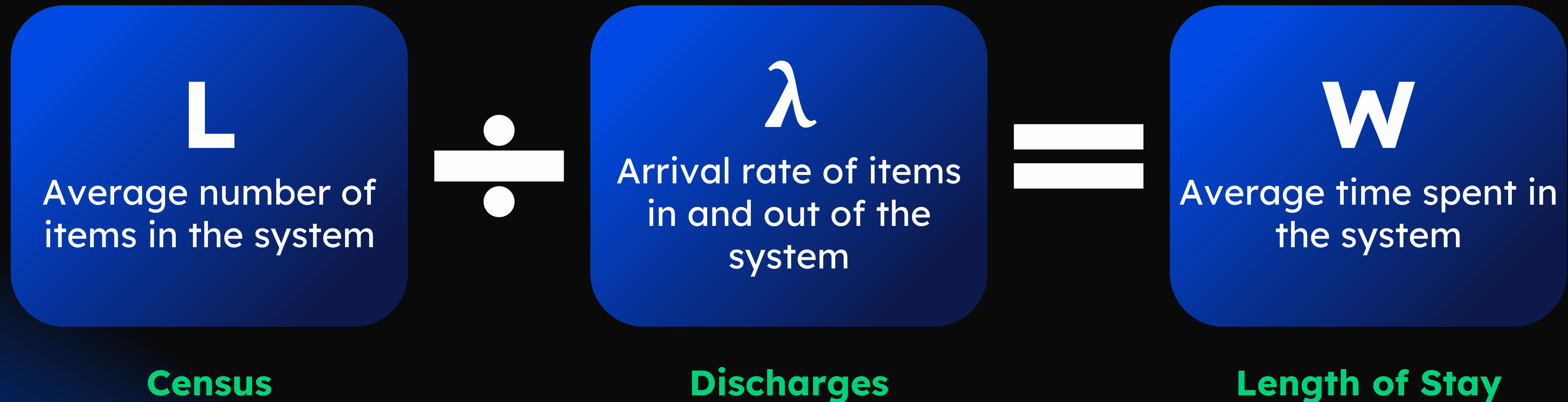


Weekdays

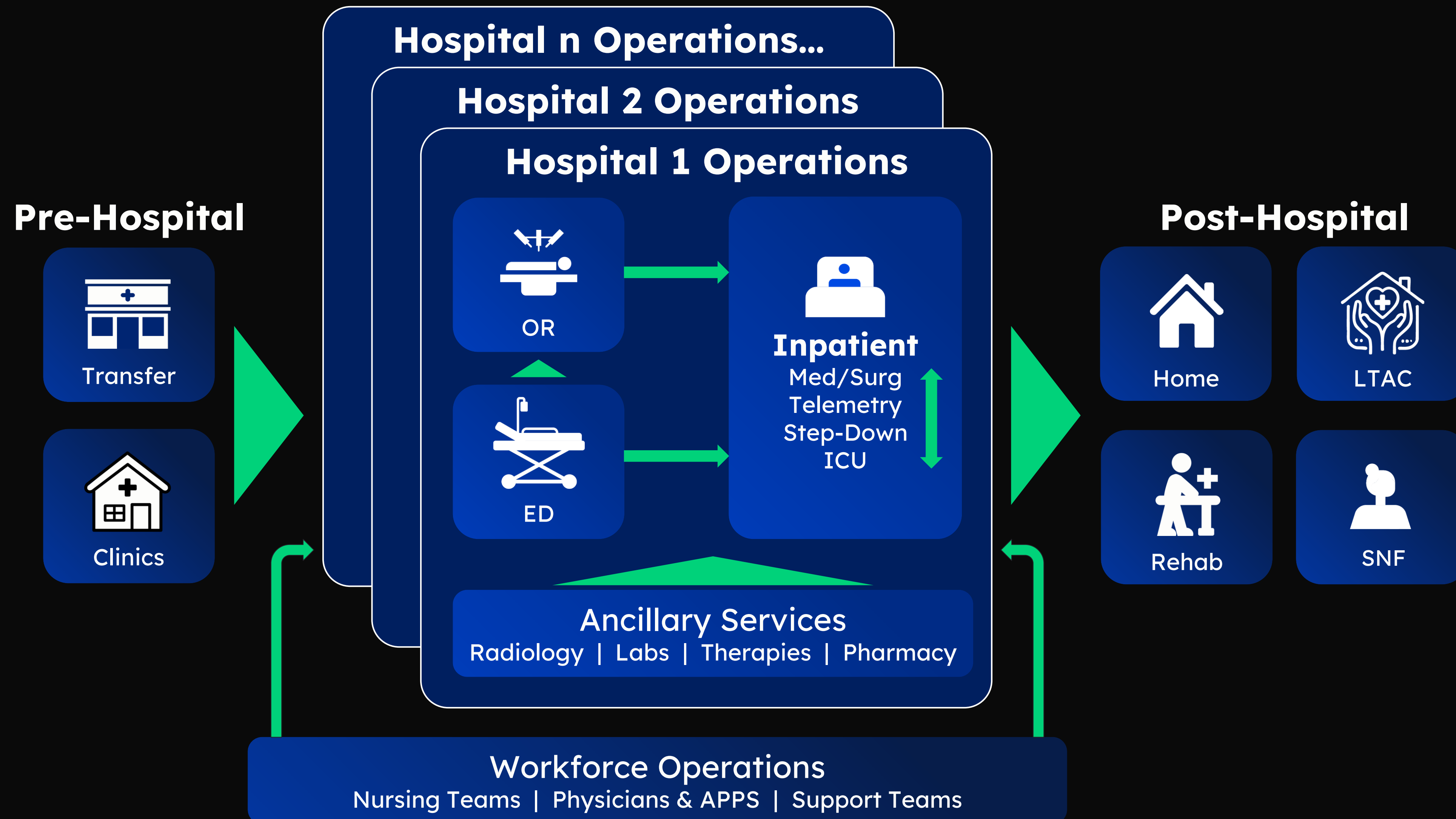
ED Boarding Time: 6 hours
High Capacity Status: 12 hours
of Patients Denied Care: 50
Available Beds?: No



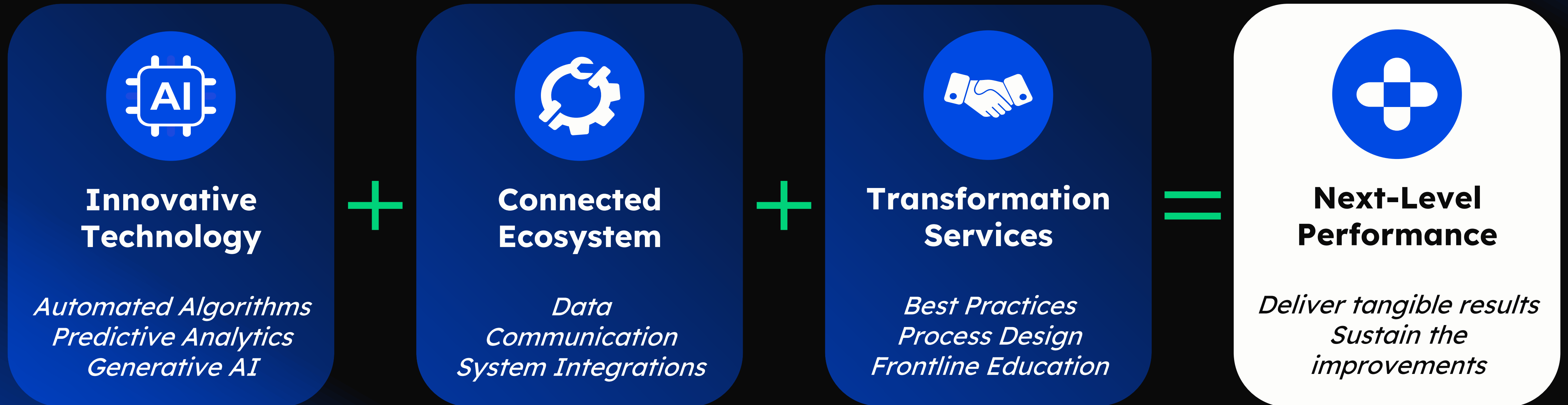
Applying Lean Principles Used In Other Industries: **Little's Law**



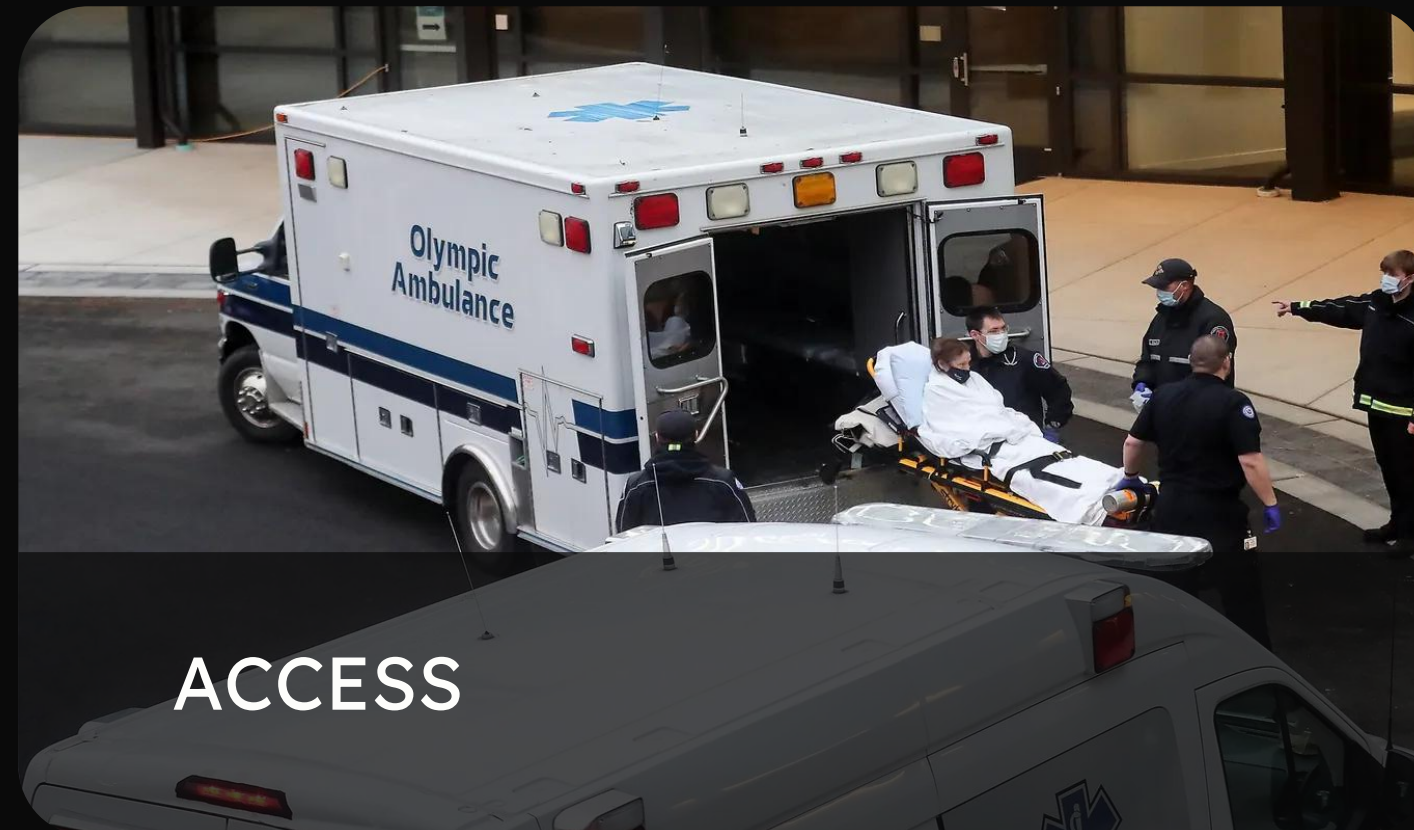
Optimizing Inpatient Operations is Complex



How We Do It: The “Magic” Equation



Targeted Areas of Impact



- Capacity Protocols
- Case Prioritization
- Load Balancing



- Care Progression
- Discharge Management
- Complex Patients



- Shift Planning
- Staff Deployment
- Staff Assignment



Shift Planning

Daily Staffing

Nursing leaders are faced with these staffing challenges every day



Inconsistent staffing processes across units



Limited visibility to staff availability or needs



Unbalanced workloads across units



Shift Planning

Daily Staffing

Nurse staffing forecasts optimize coverage and utilization by enabling proactive planning and more strategic allocation of resources



Ensures resources are available where needed most

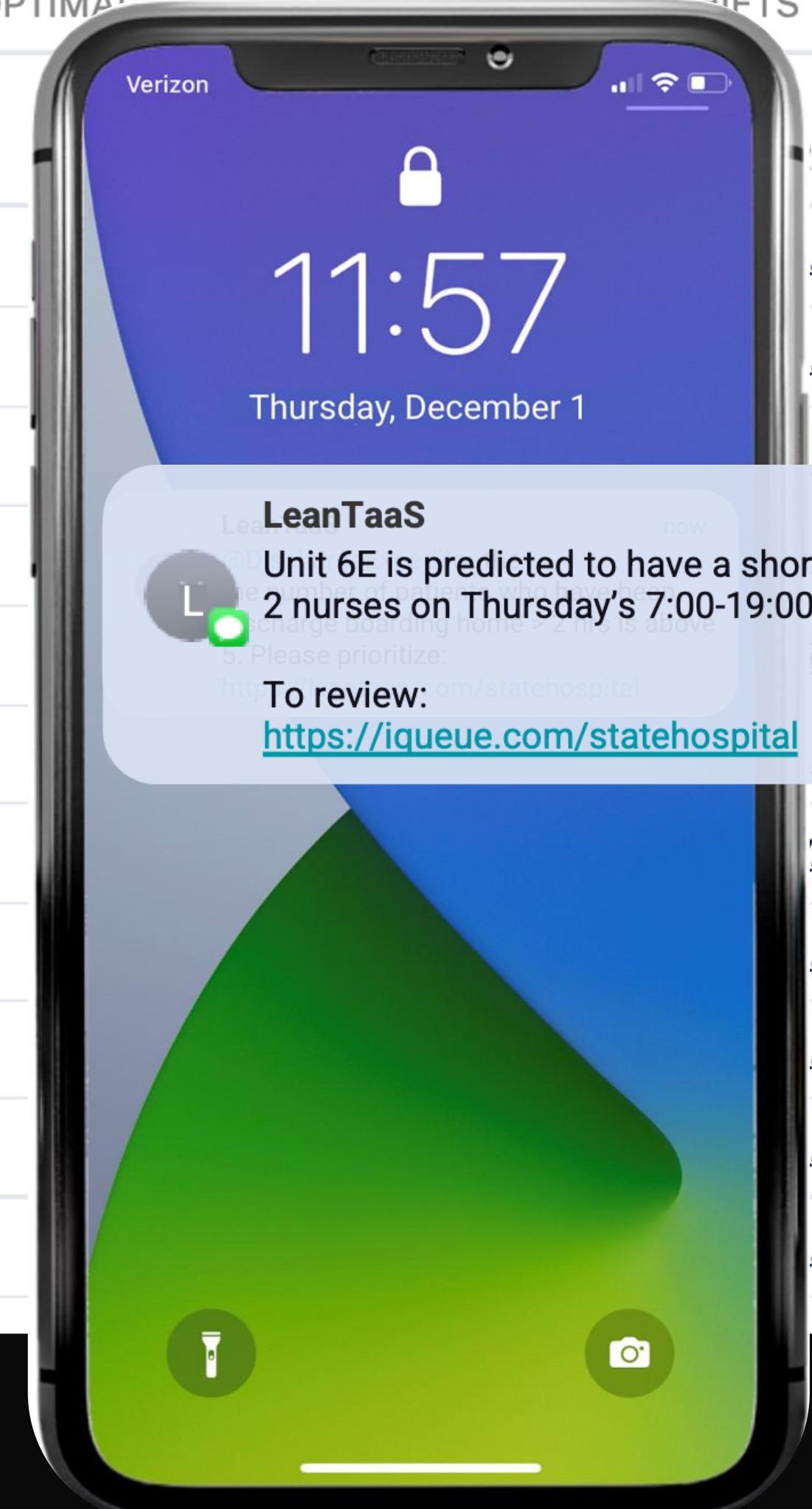


Reducing manual efforts & ensures balanced coverage



Reduces last-minute changes and reliance on premium pay

Cost center	Notes	Current census	OPTIMAL / FORECAST	STAFFED SHIFTS	VARIANCE
5E	0	21 of 41		N	RN
5W	0	40 of 41		.3	-0.7
ED Admit Boarding	0	0		.0	-3.0
7E	0	36 of 41		0	-2.0
7W	0	30 of 41			+1.0
8E	0	0 of 39			+0.1
8W	0	32 of 33			+0.1
9W	0	0 of 37			0.0
Float Pool	0	—		.0	0.0
Regional Float Pool	0	—		.0	0.0
Total		159		.4	-4.6



Care Progression

EDD Automation

Care teams struggle to ensure accurate and up-to-date EDDs



Manual processes cause delays and errors in EDD updates



Inconsistent EDD practices create variability



Operational inefficiencies burden care teams



Care Progression

EDD Automation

Likely Discharge Date prediction enables clearer decision-making and on-time barrier resolution



Enables teams to manage towards specific dates



Increased integration of ancillary management role in discharge planning



Standardized delay escalations remove outstanding issues

Bed Class	Patient MRN	Physician	LOS Admit time	EDD	Pred. discharge date
8W ROOM 0815 Inpt	F ODDRÚN K SIGURVALDADÓTTIR PAT-732852292	Matthew P Kozlov	5.8 days 4/10/24 17:41	🕒 Tomorrow	💡 Today
7E ROOM 0758 Inpt	M DZHAMBOLAT P DRATCHEV PAT-733047157	Romaine G Allard	6.2 days 4/10/24 08:00	2 days from now	💡 Tomorrow
8E ROOM 0865 Inpt	F IVANA M REZKOVÁ PAT-732170552	Lisa M Berglund	4.0 days 4/12/24 11:43	3 days from now	💡 Tomorrow

EHR

Patient List

Patient Chart

Bed Board

Person icon Patient chart

iQueue

Current Prediction

Pred DC Date

Tomorrow

Pred DC Disposition

Post Acute



Discharge Management

Departure Lounge Optimization

Discharge-ready patients frequently occupy beds longer than necessary



Patients occupy inpatient beds for hours when they are able to go home



Delays are addressed after they occur, leading to further disruptions



Late-day discharge batching, increasing strain across departments



Discharge Management

Departure Lounge Optimization

Watchlists automatically send Discharge Escalations when certain patients meet thresholds that require staff intervention



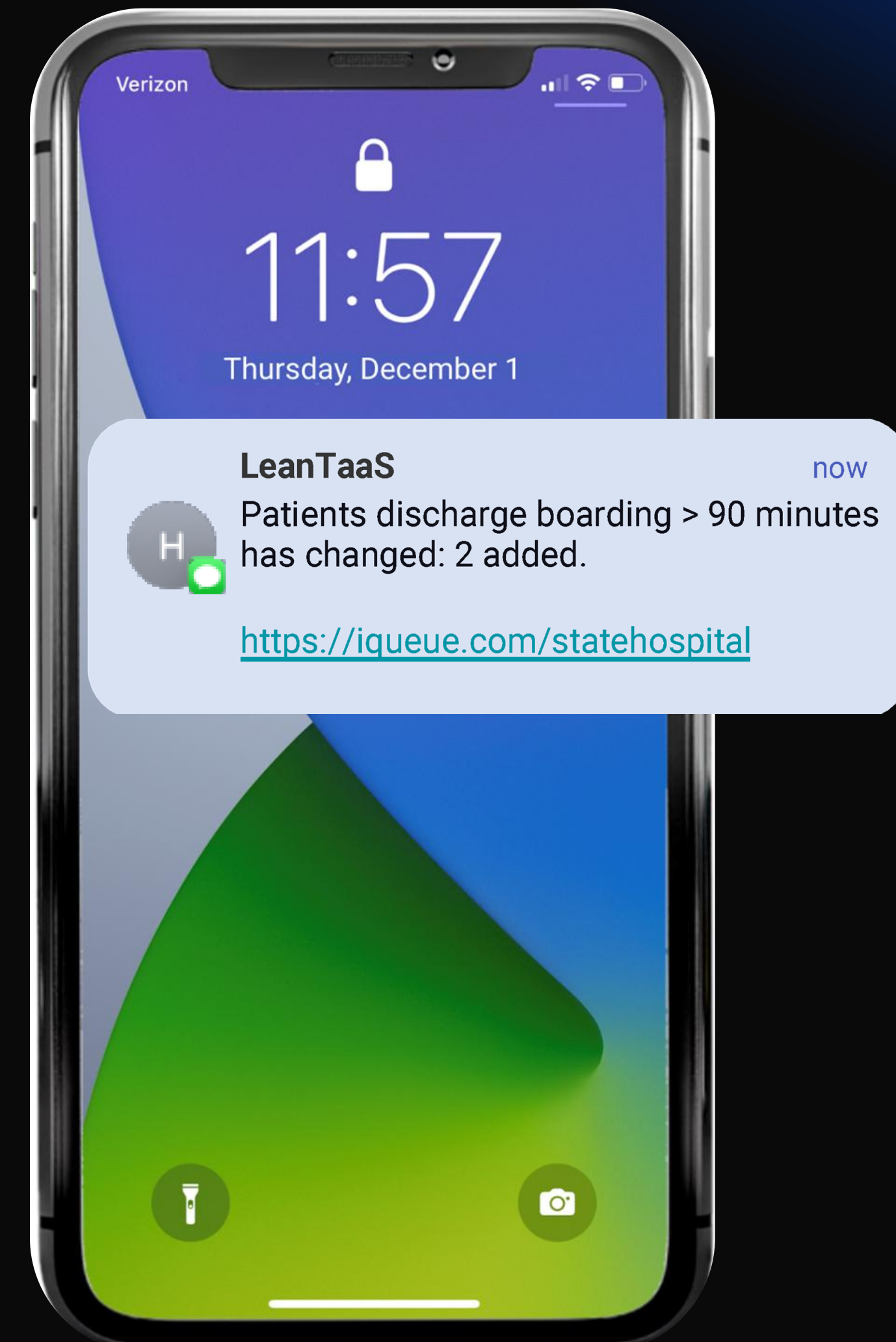
Identify and address inefficiencies in real-time



Reduce patient boarding time with predictive and rule-based triggers



Escalate long outpatient and observation stays throughout the day



Capacity Protocols

Protocol Activation

Activation of capacity protocols is inconsistent and lacks timeliness



Fragmented information communication leads to inconsistent actions



Inefficient management of capacity delays patient admissions



High rates of diversion & transfer declines reduce patient access to care



Capacity Protocols

Protocol Activation

Census and Inflow/Outflow Predictions enable timely activation of capacity protocols, ensuring unified decisions across departments.



Distributes admissions across your network, reducing overcrowding



Automates capacity protocols activation based on predicted volumes



Real-time visibility into bed availability across your network

The dashboard displays a table of hospital capacity protocols. The table has columns for Hospital, Last modified, ED, and a dropdown menu. The data is as follows:

Hospital	Last modified	ED	
Camby Hospital	6 days ago	Delay	▼
Cowan Hospital	6 days ago	SOP	▼
Ellis Hospital	6 days ago	Delay	▼
Friedman Hospital	6 days ago	SOP	▼
Harvey Hospital	6 days ago	Delay	▼
Prevision Main	6 days ago	SOP	▼
Shore Hospital	6 days ago	Delay	▼
Wesley Hospital	6 days ago	SOP	▼

The smartphone notification from LeanTaaS reads: "ICU diversion conditions detected in North Hospital. Please assess the situation with protocol recommendations and act: <https://iqueue.com/statehospital>".



World class
software by itself
isn't enough



LeanTaaS: Your transformation partner

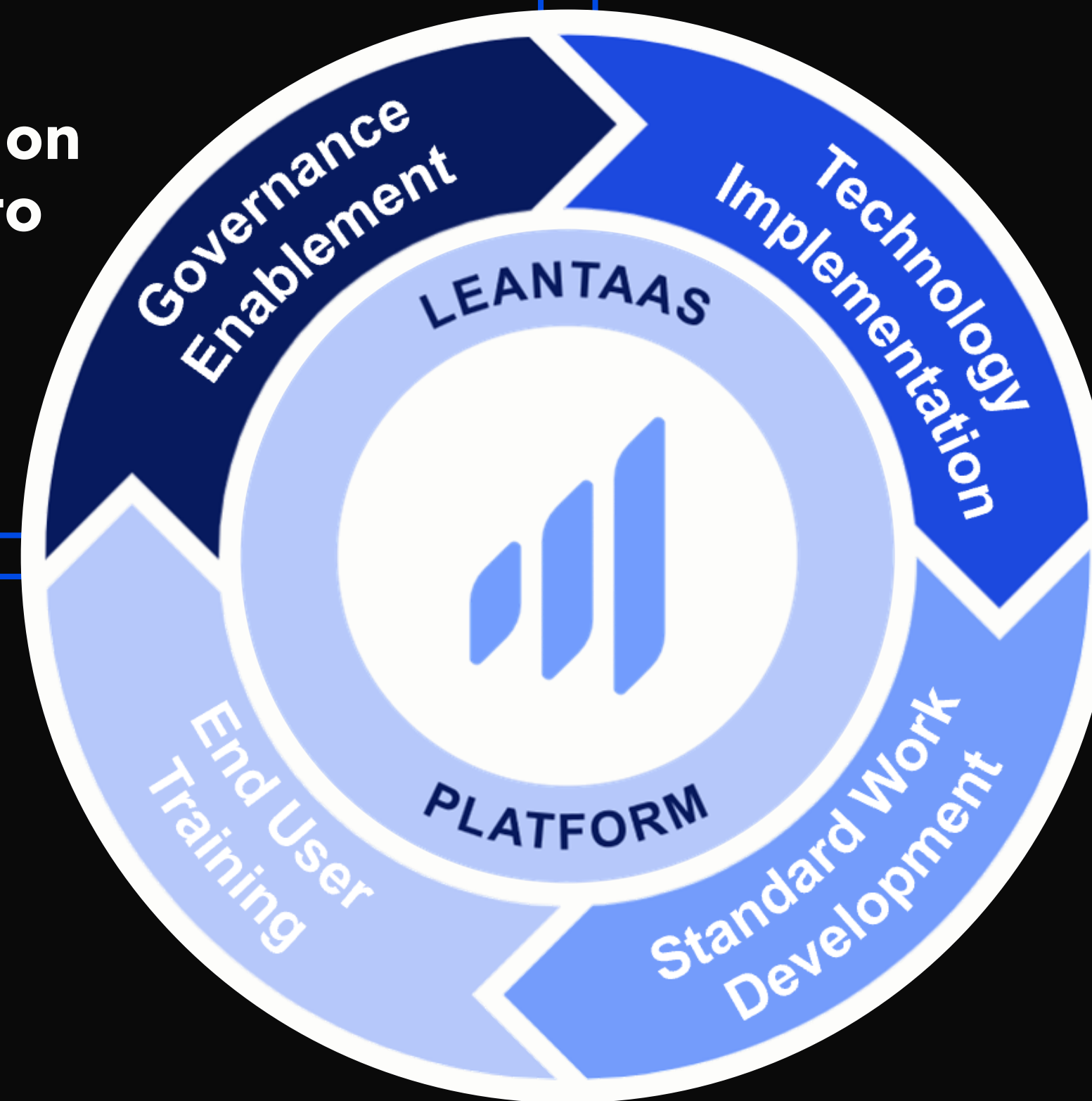
LeanTaaS provides the tools, personnel & expertise to deliver the key outcomes for the life of the relationship

Align cross-functional leadership on performance and improvements to drive organizational action

Configuration of new software requests to enhance use of the iQueue system

Frontline training to mobilize new capabilities and improvement efforts

Workflow definition for adoption within the organization's existing operating practices



Your Team of Inpatient Flow Experts

Hand-selected team from over 50+ experts within LeanTaaS

Program Leadership



Jason Harber
Innovation Partnership

- 20+ years of leadership in healthcare IT, analytics, & product innovation
- Former COO & Chief Strategy Officer of Hospital IQ
- Former VP, Product Management at TeleTracking



Eric Hochberg
Product & AI Development

- 10+ years of experience in data and AI innovation for hospital operations.
- Former Product Lead at Epic focused on Grand Central and the associated patient flow analytics



Peter Gould
Program Delivery

- 30+ years in healthcare analytics service delivery, complex project delivery, and client management.
- Former delivery lead at McKesson, Patient Keeper, and Cedar Gate Technologies

Change Management



Bill Griffith, CSSBB
Operational Strategy

- 25+ years of operational improvement, operations, and coaching in Healthcare and Manufacturing
- Lead performance improvement teams to transform care delivery



Lisa Romano MSN, RN
Clinical Operations

- Former ICU RN with +25 years transforming patient flow and clinical operations
- Former leadership roles at Lehigh Valley Health, TeleTracking, Skylight, & CipherHealth



Katie Prater, RN
Frontline Engagement

- 15+ years of paramedicine, nursing, critical care transport, and patient flow mgmt experience
- Held clinical leadership positions at Novant Health and Carolinas HealthCare System

Platform Delivery



Jackie Morrissey, PMP
Innovation Partnership

- 20+ years in software delivery, complex project delivery, and client management.
- Former delivery lead at McKesson, Aetna, and WebPT.



Glen Guenther
AI + Automation Delivery

- 10+ years in capacity management analytics and healthtech operational improvement
- Former Epic patient flow lead for large scale US and international projects

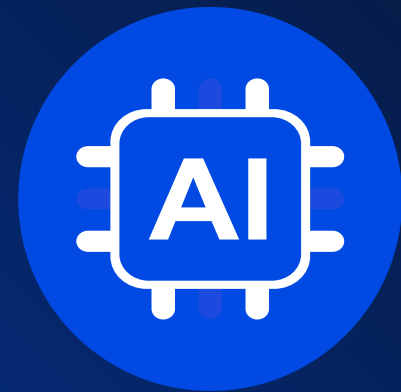


Allison Dupont
Workforce Optimization

- 10+ years process engineering and optimizing clinical workforce teams
- Former consultant at Kaufman Hall & Associates and Navigant Consulting



How We Partner



Innovative Technology

to generate accurate predictions and distinctive prescriptions



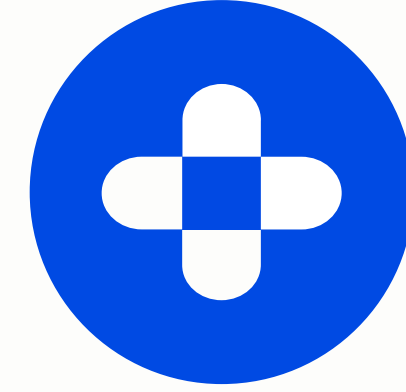
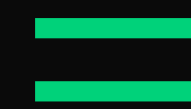
Connected Ecosystem

to convert the prescriptions into action



Transformation Services

necessary for building understanding and internal commitment



Next-Level Performance
with proven ROI across the health system



Proven impact and sustained results

30+

Health Systems

100+

Hospitals

26k

Inpatient Beds

5%

increase in
Daily
Discharges

10%

decrease in
Excess
Days

25%

decrease in
Transfer
Declines

2%

increase in
Patient
Admissions

