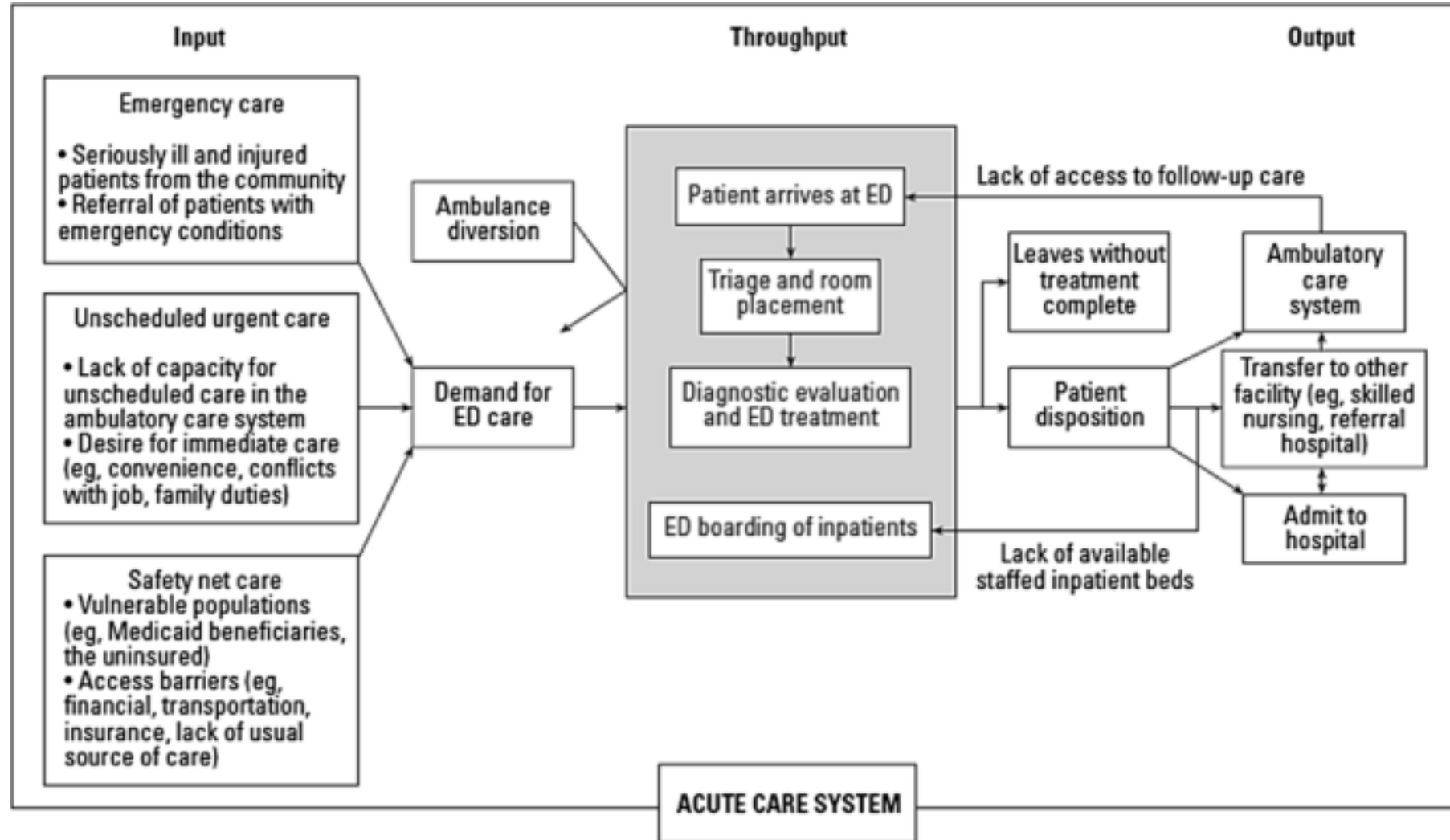


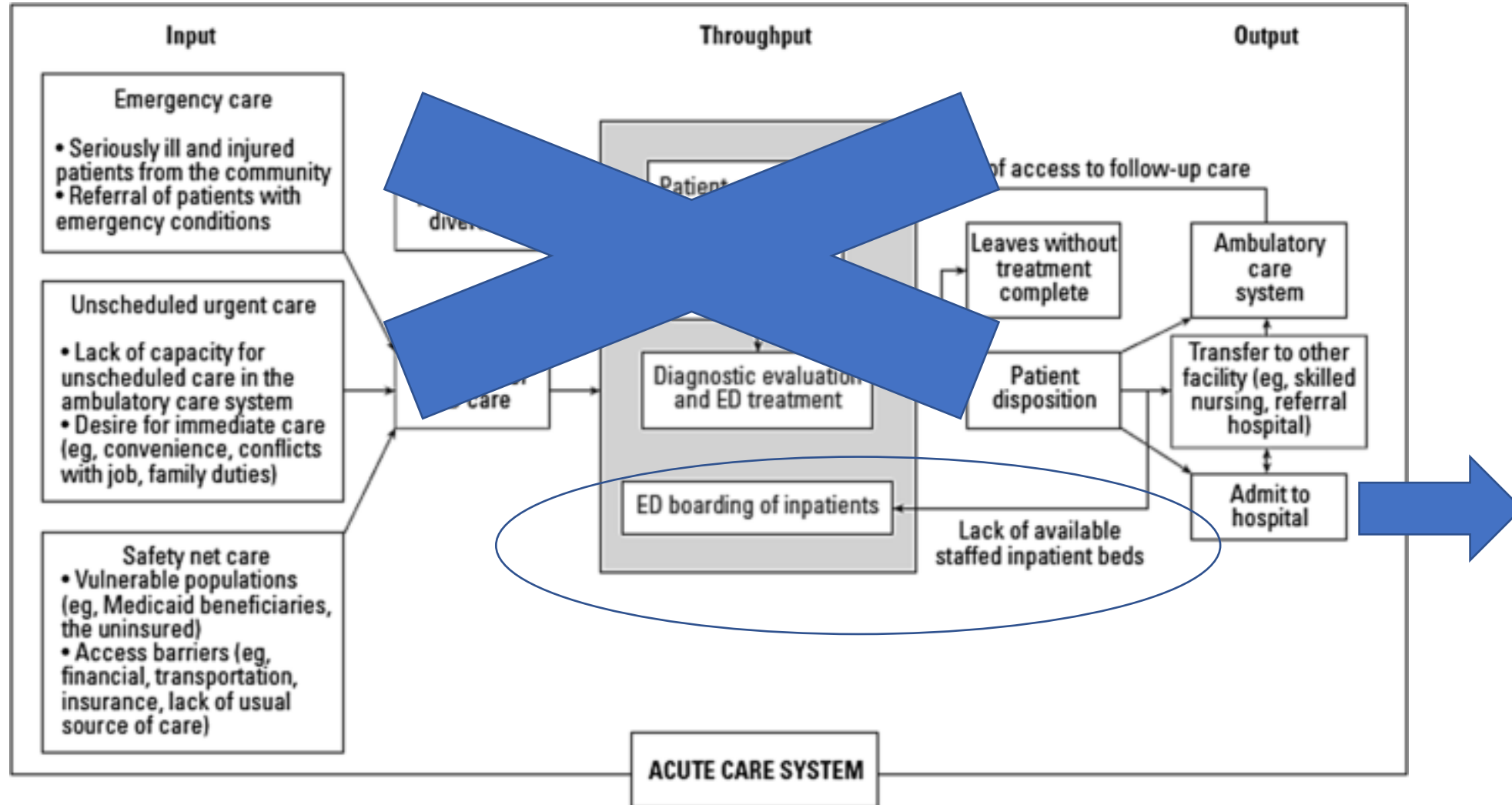
Capacity and ED Wait time

Peter M. Hill, MD FACEP
Sr. VP Medical Affairs
Johns Hopkins Health System

Traditional View of ED Throughput



Work since the first of 4 state-organized reports in 2002 has focused on this box – yet here we are.



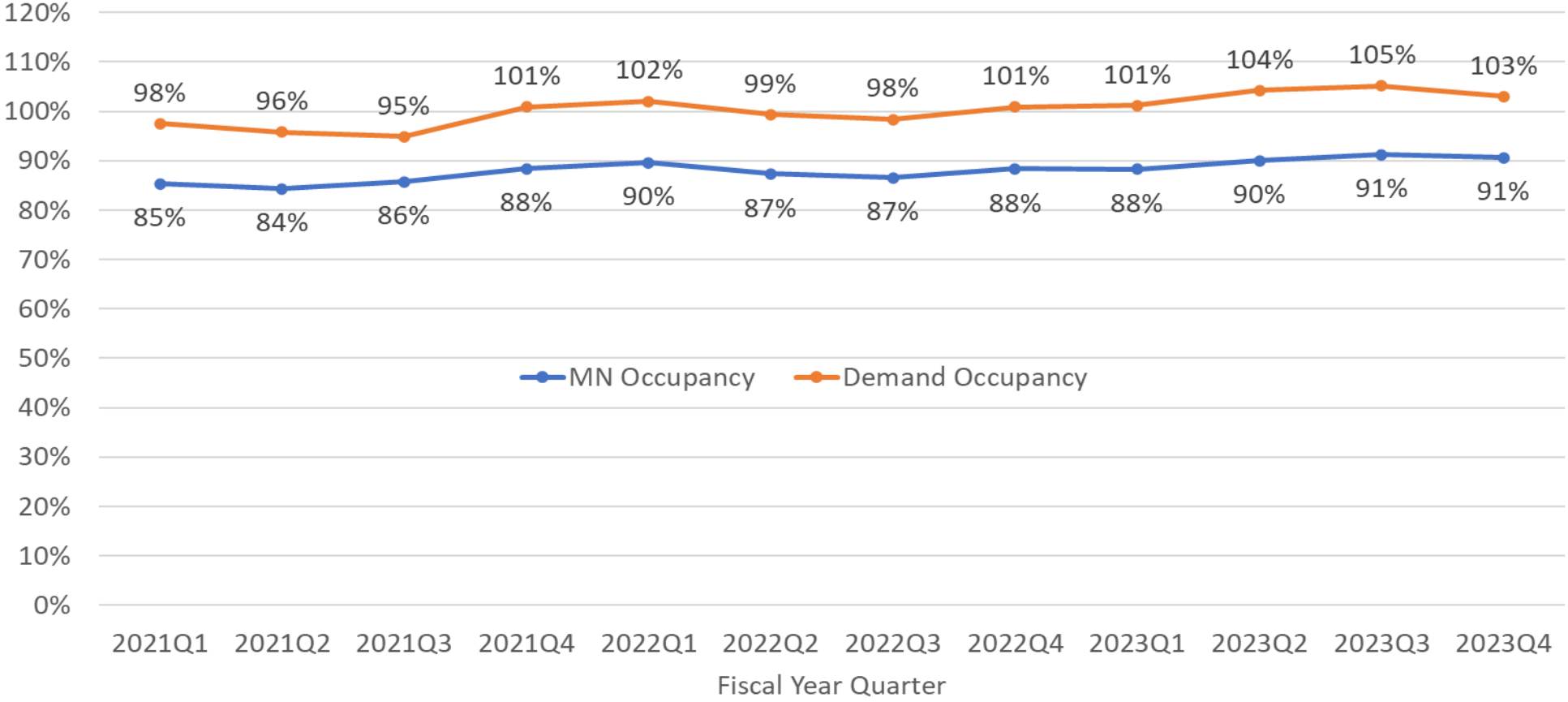
Long ED waiting times/ambulance off load times are a symptom of a much larger problem

- 25 years of research - ED overcrowding is largely a result of hospital overcrowding
 - Not ED processing/throughput problems
 - This acknowledged in Joint Chairmen's Report on ED Overcrowding , MIEMSS, 2017
- Boarding:
- This functionally reduces the size of the ED, often in half, creating an inability to serve new patients arriving, resulting in long wait times and long ambulance off load times and diversion. (artificially increases size of the hospital)
- Hospital overcrowding is a function of space and time – i.e number of available beds and LOS of hospitalized patients.
- The three ways to address hospital overcrowding are
 - Admit fewer patients – much discussion and effort by the state and across industry
 - **Reduce LOS – continual effort and benchmarking**
 - **Create additional capacity – throughout the system**

Midnight vs Demand Occupancy

Midnight (MN) & Demand Occupancy
Medicine, Surgery, Neurosciences, Pediatrics & Oncology Combined

Demand Occupancy includes patients who have been accepted via HAL, Direct Admit, OR, or ED
Demand Occupancy reflects occupancy at 1200.



Hospital capacity and ED 'wait time'

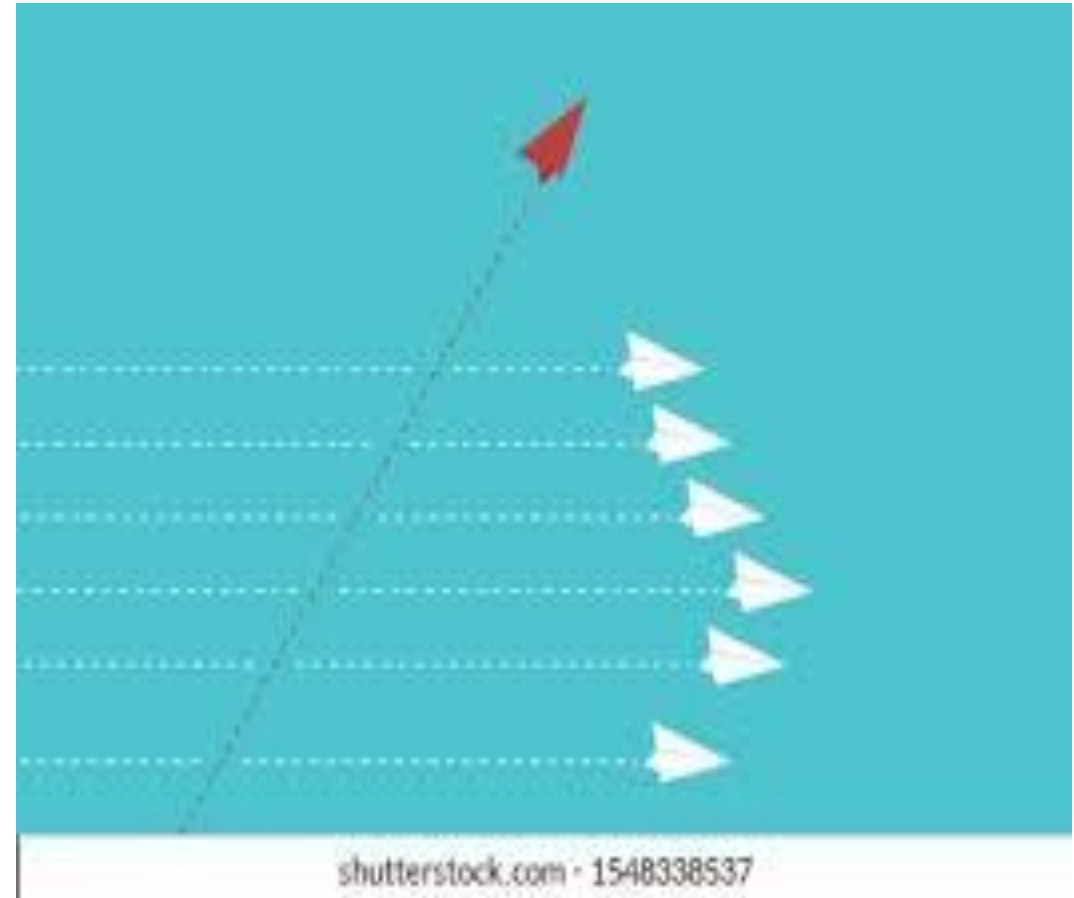
- Maryland longest 'wait time' in the country - 228 min (Becker's Feb 22, 2022 – data from SysAid using CMS data)
- Maryland 5th fewest beds -1.82 beds/1000 population (KFF 2022)
- Comparing the above lists of states -
- 7/11 with the best wait time stats also had the most beds/capita
- 0/11 of states with the worst ED wait times were in the top 18 states with the most beds/capita
- There is a correlation between state bed capacity and 'ED wait time'
 - Previous efforts focus on preventing admissions –
 - Need to do something different

Further stress

- Bed closures are increasing across the US, especially in community hospitals - mainly due to financial issue
- Similar bed closures are occurring in Maryland
- Shrinkage of post acute care capacity is well documented across the country and in Maryland (reference page)
- Acceptance rates are falling as post acute care facilities are becoming more selective
- Pediatric bed closures across the country and in Maryland are also well documented (reference page)
- Behavioral health bed crisis is well documented

Different approach

- 5 State sponsored ED overcrowding reports since 2002
- Problem waxes and wanes but has not been solved
- Unlikely that collectively MD ED's and hospitals operate poorly compared to other states
- Must understand what it is we all share that sets us apart from other states.
- We all operate within the same Maryland health care environment
- ED wait time, ambulance diversion and long off load times are largely a product of that environment
- Symptom of a larger, systemic capacity problem



- **How tight nursing home capacity is bottlenecking hospital operations** - Longer patient stays are racking up higher costs, but hospitals aren't getting paid more. (HealthCareDive.com Oct 4, 2022)
- Hospital finances play a major role in the critical shortage of pediatric beds for RSV patients. (PBS News Hour, Dec 11, 2022)