

Prof Dr Jamal Alkudhairi 2025

HOSPITAL UTILIZATION

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Declining in-patient utilization → closure / merge
many small, rural US hospitals because:

- ✘ Higher prices, & little investment in new technology → drive patients away.
- ✘ Lower utilization, increases patient's costs → cash flow becomes negative.

UTILIZATION INDICES



✘ Admission rate: معدل الرقود

(Annual admissions / Catch pop) ‰

✘ Hospitalization rate/person (hospitalization volume): حجم الرقود للمستشفى (admission per-capita)

(Annual admissions / Persons admitted) %

✘ Average length of stay: معدل مكوث المريض (يوم)

Discharge date – Admission date

UTILIZATION INDICES (BEDS)



✘ Bed occupancy rate (ratio) (BOR): **نسبة إشغال الأسرة:**

used beds from beds provided (predisposing).

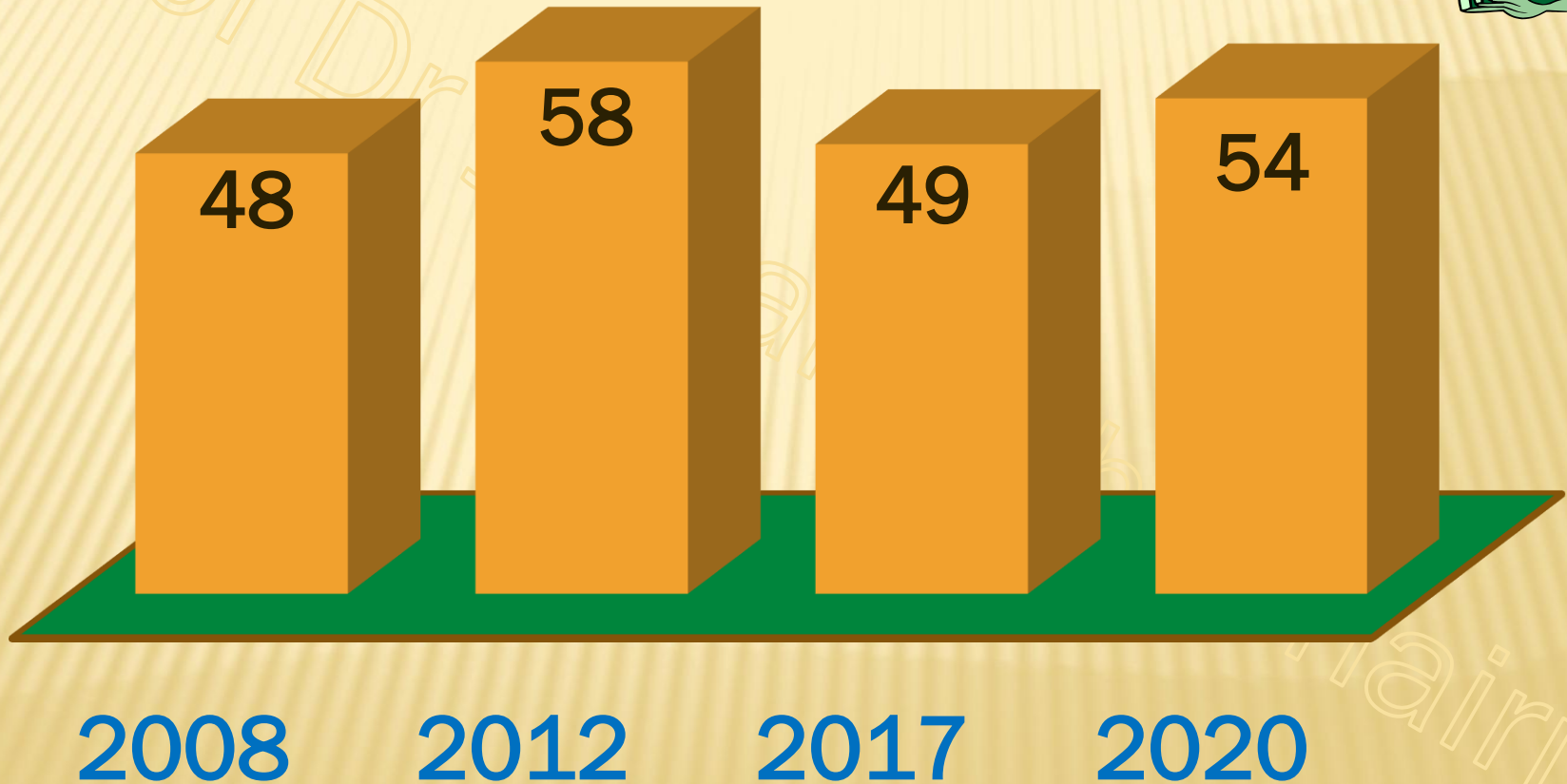
Related to length of stay:

(Average daily admissions / beds) %

(Total length of stay per yr / beds x 365)%

Predisposing beds < Tot beds (including casualty)

BED OCCUPANCY RATIO (BOR%)



UTILIZATION INDICES (BEDS)



- ✘ Bed population index (BPI): سریر/سكان
(availability of beds regardless of utilization): (total bed ratio / 1000 pop)
 $(Tot\ beds / Catch\ pop) \times k$
- ✘ Population per bed: مواطن لكل سریر
 $Catch\ pop / tot\ beds.$ (= k / BPI)

UTILIZATION INDICES



- ✘ Turnover interval (Average period in days that a bed remains empty: **فترة خلو السرير (يوم)**
(Admission date - Previous patient discharge date))

BOR=100% → turnover =zero

Short turnover → bed shortage.

Long turnover → excess beds

→ admission policy defect.



HOMEWORK: FIND OUT HOSPITAL INDICES 2020

(WRITE DOWN THE FORMULA IF PRESENT)



Hospital indices 2019

- Total hospitals (gov+private)
- NHE% for hospitals
- Admission rate (inpatient rate/1000): **80.9**
- Bed occupancy ratio: **56.5**
- Total bed ratio / 1000 pop: **1.2**
- Pop per bed
- Total gov beds: **46627**
- Predisposing beds: gov & private: **39180+5450**
- Outpatient visit / 1000 pop: **703**
- Outpatient visit per capita: **1.61**

PRACTICAL



STUDY THE FOLLOWING DATA & WRITE YOUR CONCLUSIONS

US Hospitals utilization data	1980	2000
Bed Occupancy rate	76%	66%
Admission rate (per 1000)	160	120
Average length of stay (days)	7.6	5.8
<i>Outpatient visits / 1000 pop</i>	890	1900

Pro



*Today we are adding years to life,
Not life to years*

shahiri