

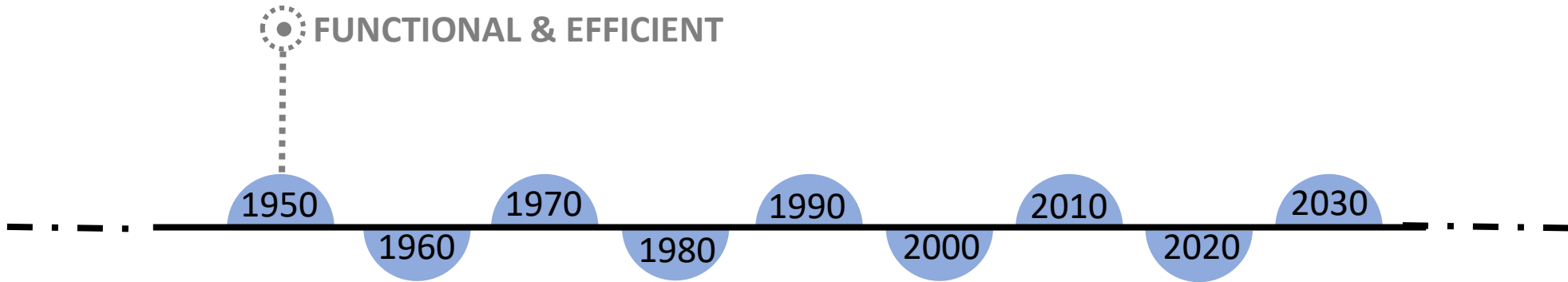
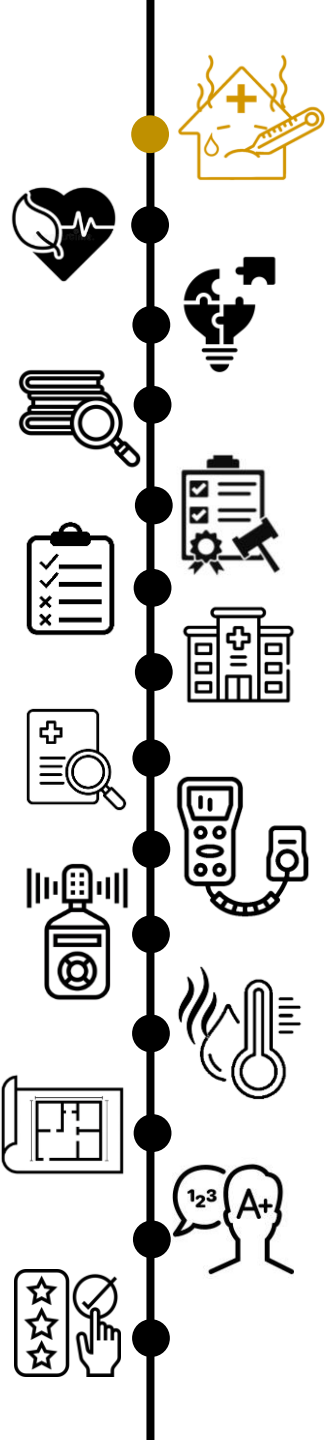
# Assessing the Role of the Hospital Built Environment in Supporting Psychosocial Well-being:

## Can We Put a Number on It?

**Presented By**

Dr. Ghaydaa Hemaidah – Dr. Alan Lewis

# Historical Background



Source: Hughes, 2000

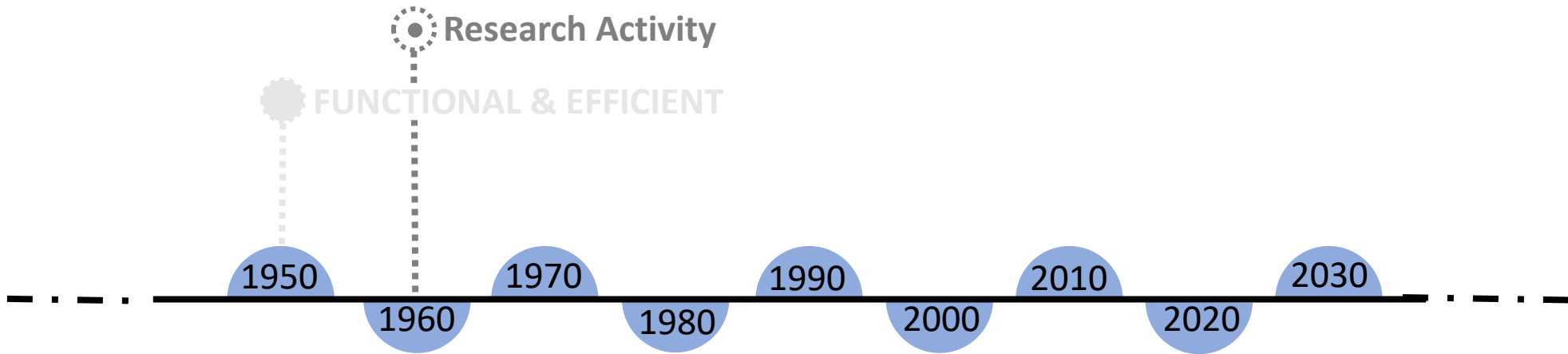
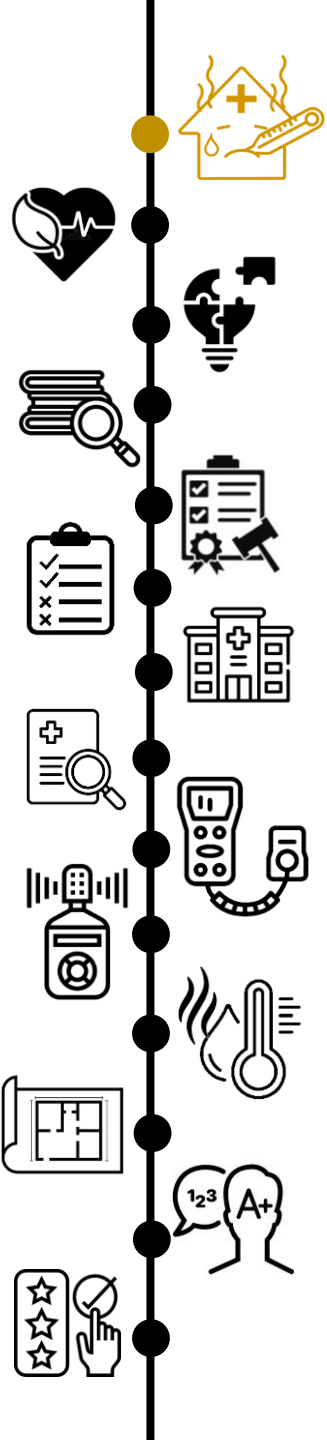


Source: Hughes, 2000

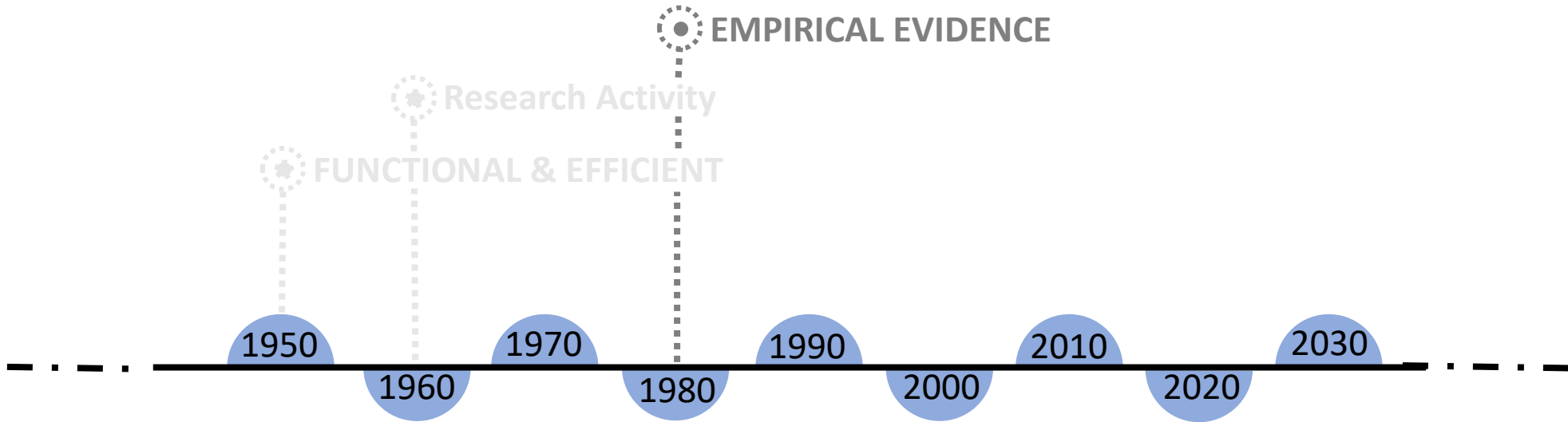
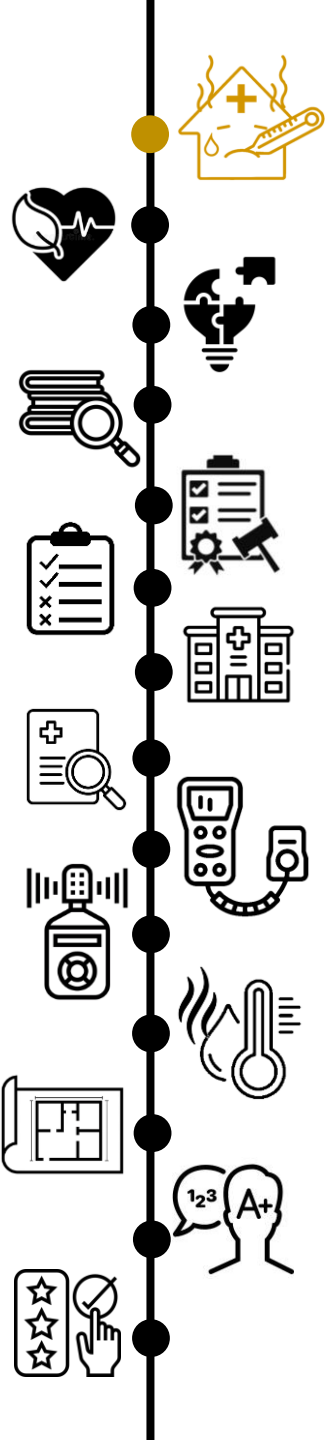


Source: Adams et al., 2010

# Historical Background



# Historical Background



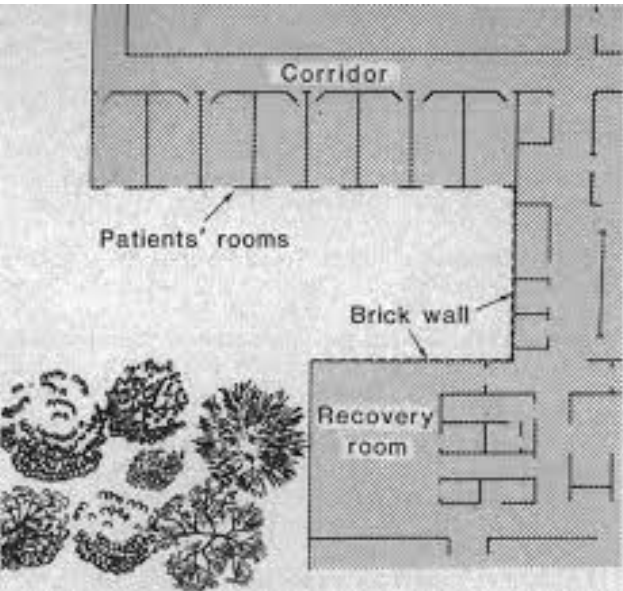
## View Through a Window May Influence Recovery from Surgery

### View Through a Window May Influence Recovery from Surgery

*Abstract. Records on recovery after cholecystectomy of patients in a suburban Pennsylvania hospital between 1972 and 1981 were examined to determine whether assignment to a room with a window view of a natural setting might have restorative influences. Twenty-three surgical patients assigned to rooms with windows looking out on a natural scene had shorter postoperative hospital stays, received fewer negative evaluative comments in nurses' notes, and took fewer potent analgesics than 23 matched patients in similar rooms with windows facing a brick building wall.*

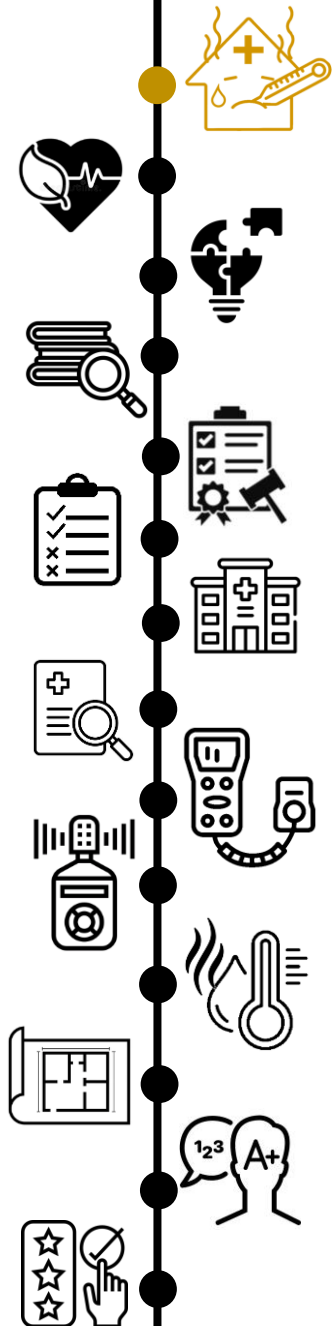
Investigations of aesthetic and affective responses to outdoor visual environments have shown a strong tendency for American and European groups to prefer natural scenes more than urban views that lack natural elements (1, 2). Views of vegetation, and especially water, appear to sustain interest and attention more effectively than urban views of

cated somewhat closer to the wall-view rooms on both floors. The rooms are all for double occupancy and are nearly identical in terms of dimensions, window size, arrangement of beds, furniture, and other major physical characteristics. Each room has a single window 1.83 m high and 1.22 m wide with the lower edge 74 cm above the floor. The size and

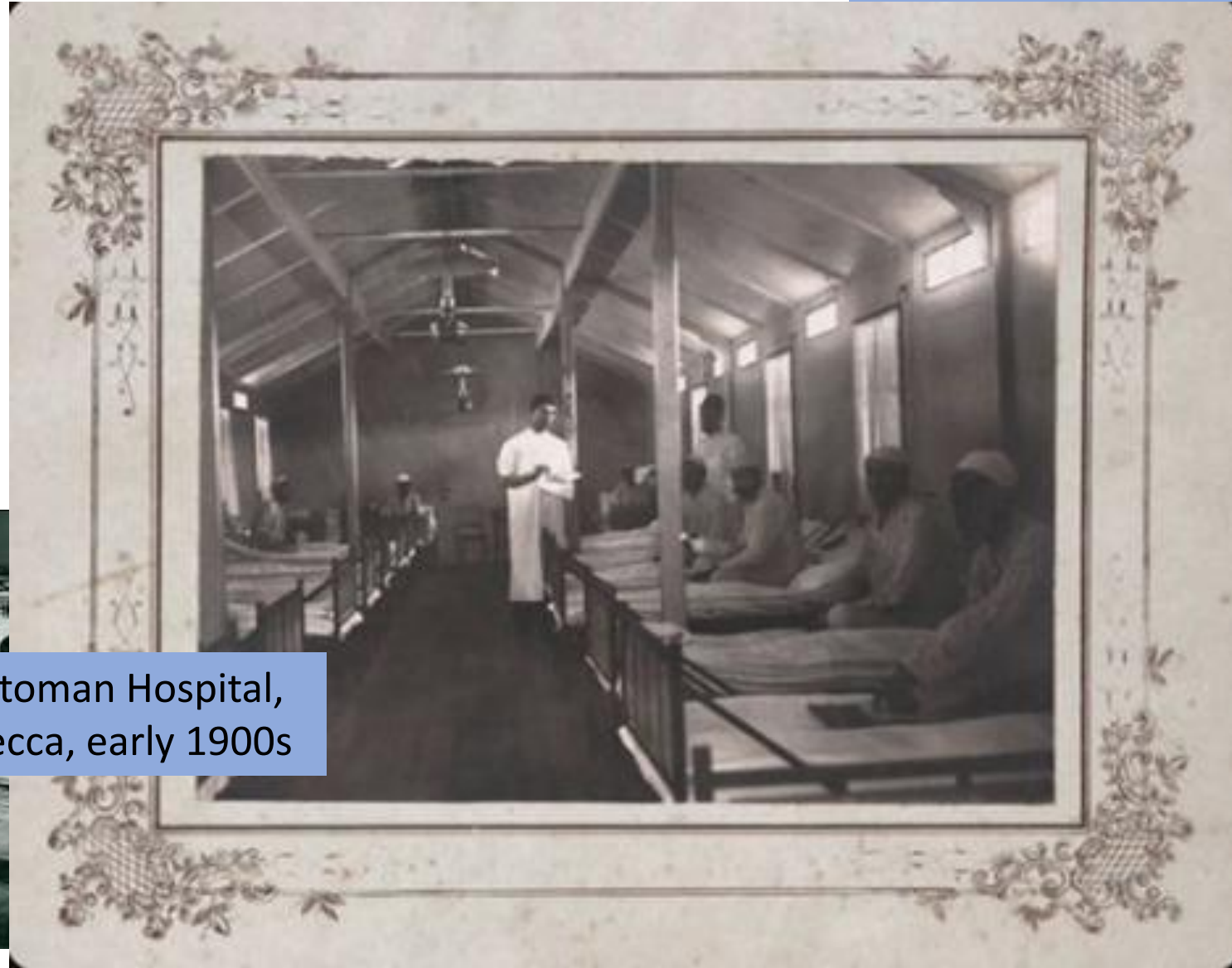


suburban Pennsylvania hospital (low beds). Such patients often experience considerable anxiety (4, 5), and hospital

# Historical Background



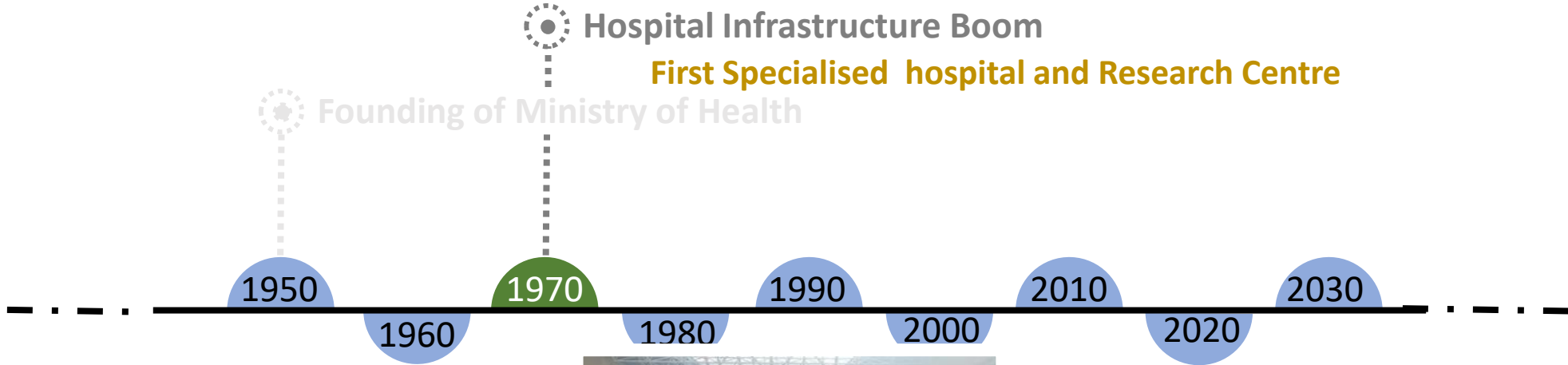
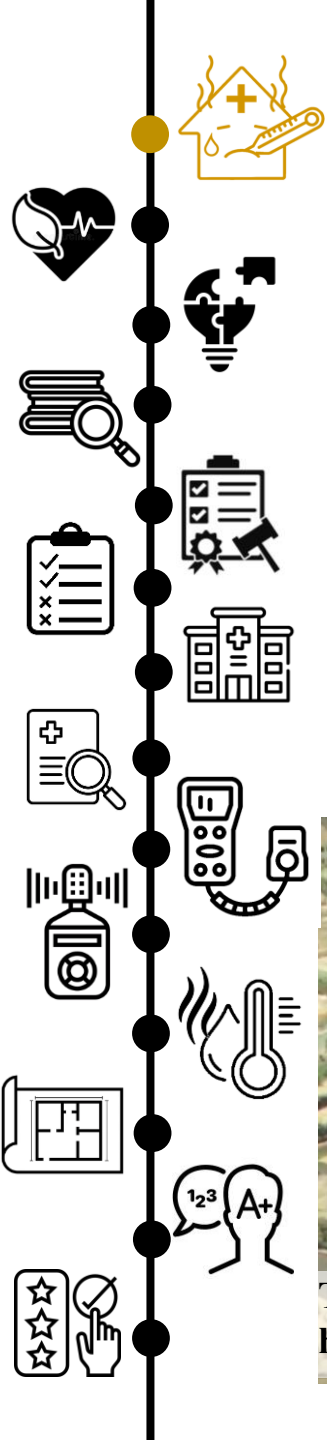
Ottoman Hospital,  
Mecca, early 1900s



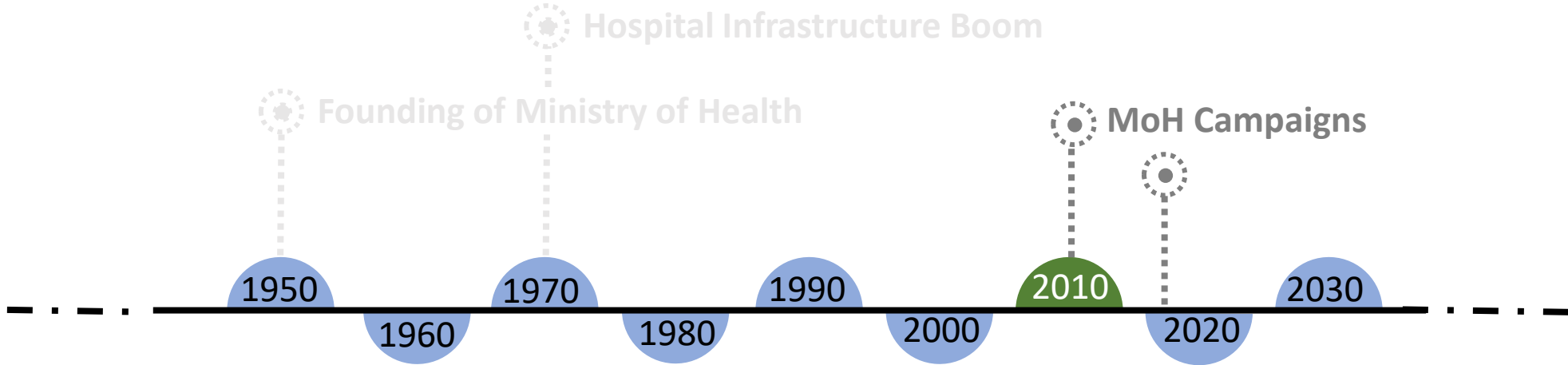
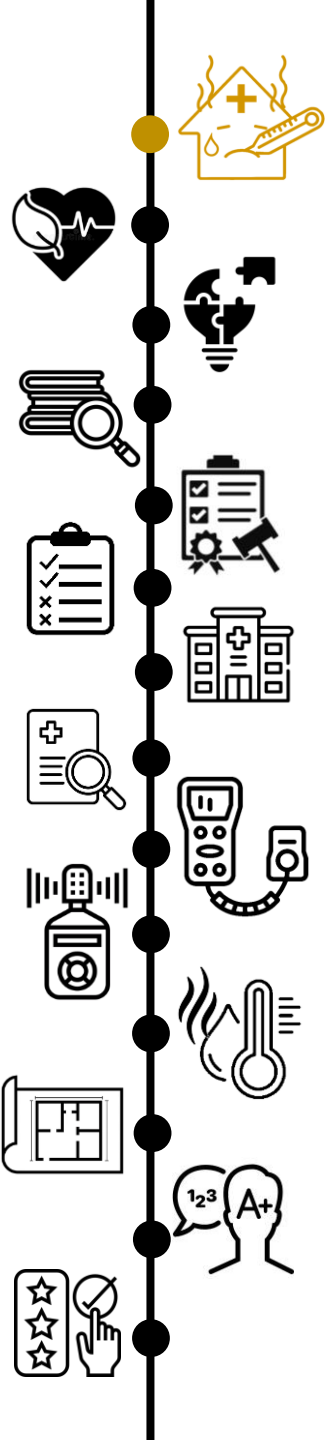
2030



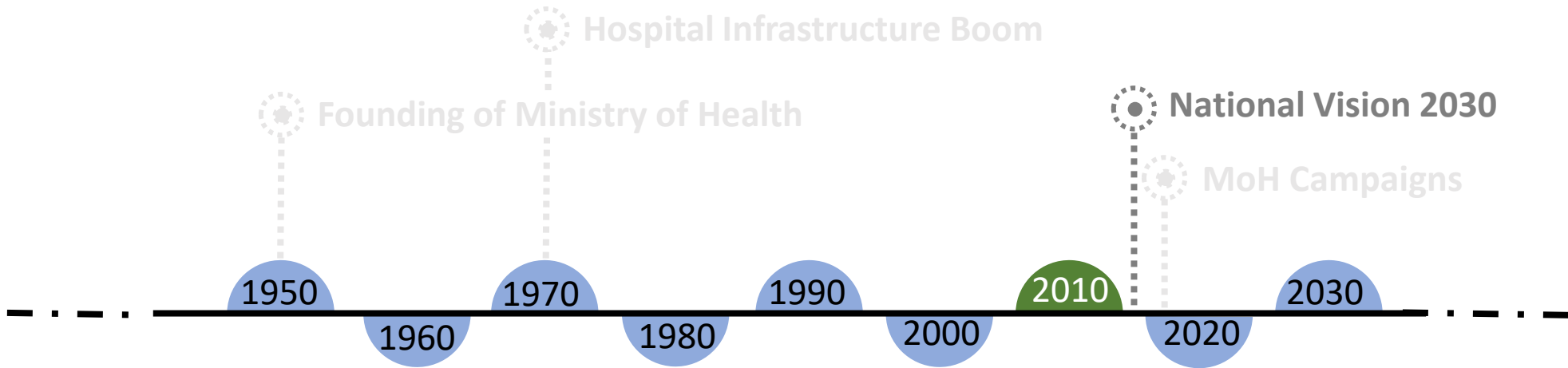
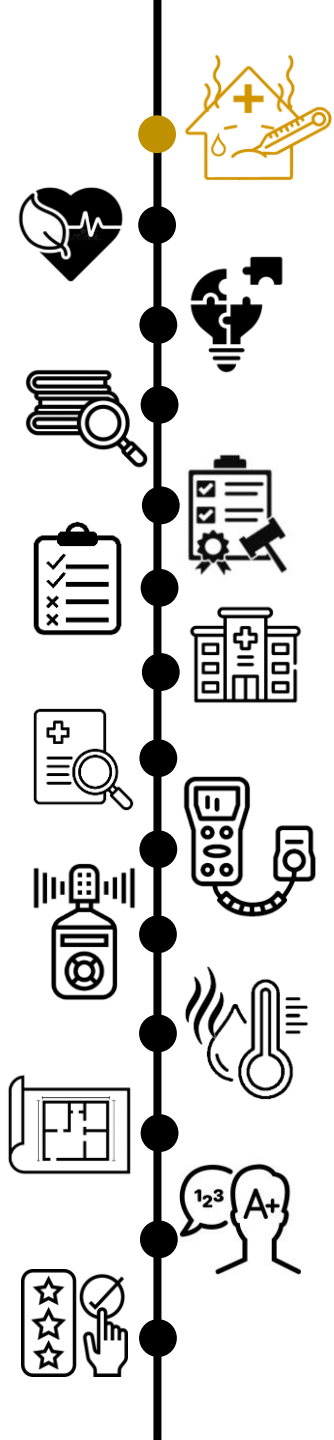
# Historical Background



# Historical Background

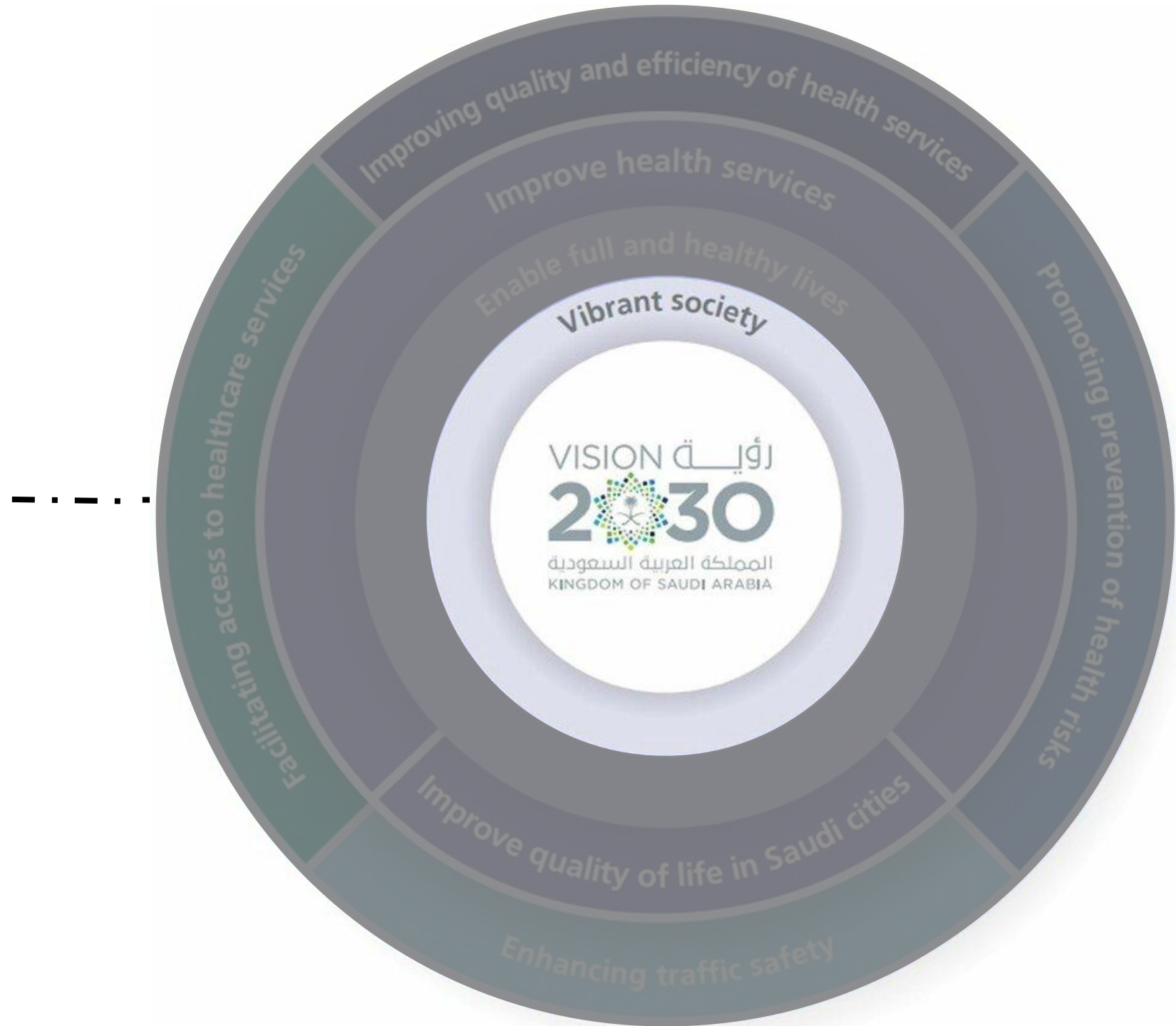
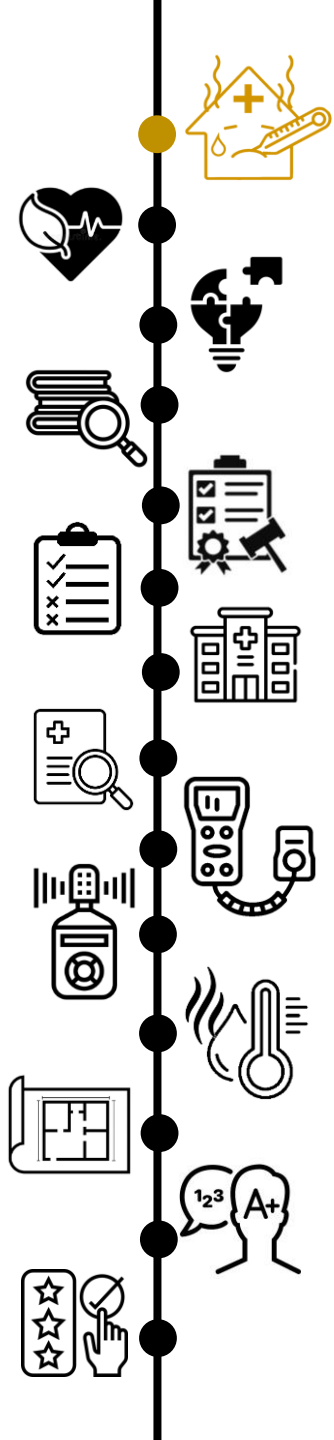


# Historical Background



رؤية  
VISION  
2030  
المملكة العربية السعودية  
KINGDOM OF SAUDI ARABIA

2016



Improving quality and efficiency of health services

Improve health services

Enable full and healthy lives

Vibrant society

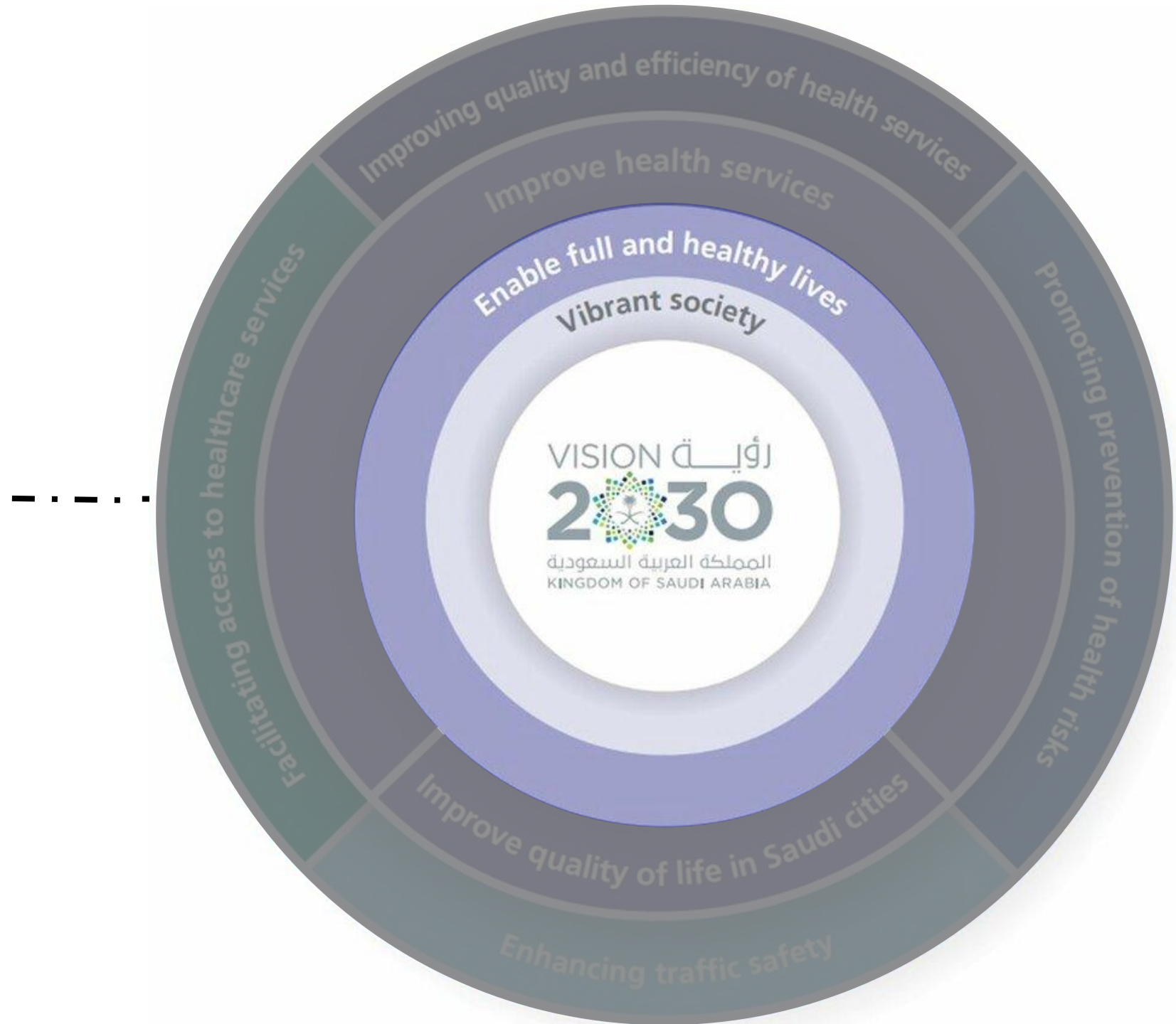
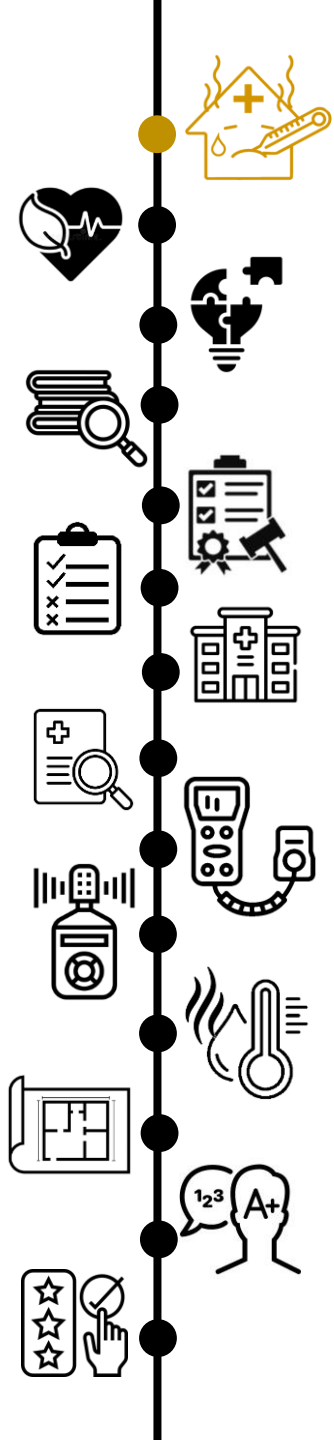
VISION رؤية 2030  
المملكة العربية السعودية  
KINGDOM OF SAUDI ARABIA

Promoting prevention of health risks

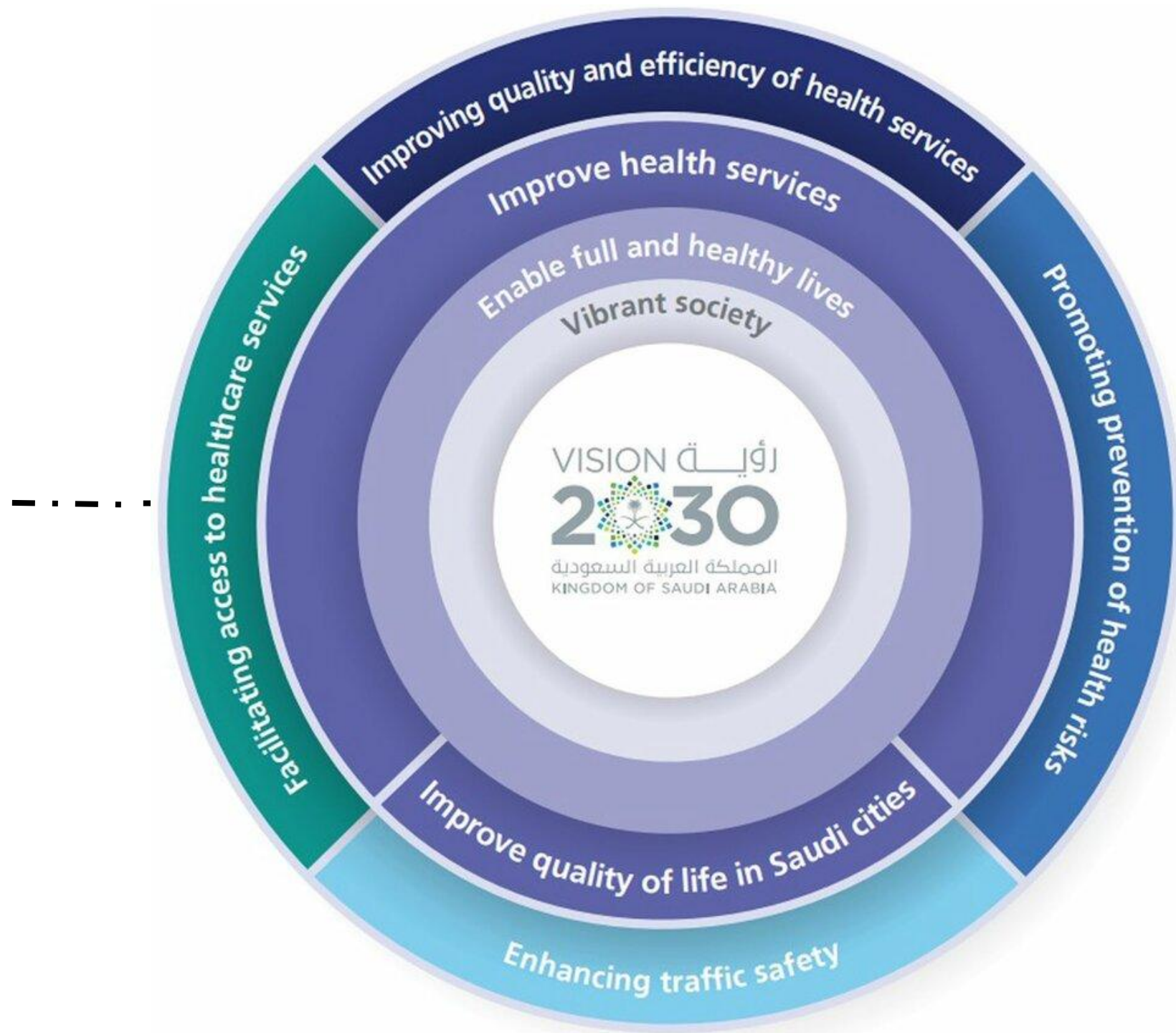
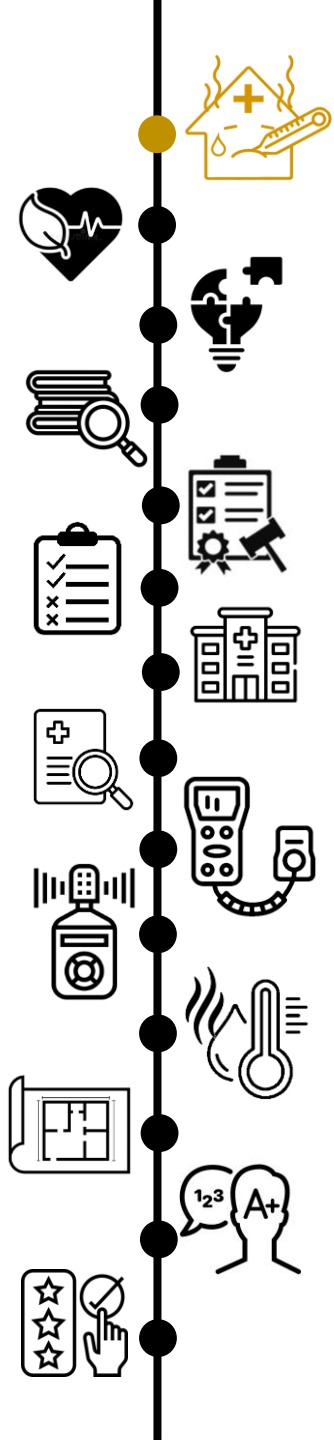
Improve quality of life in Saudi cities

Enhancing traffic safety

Facilitating access to healthcare services







VISION رؤية 2030  
المملكة العربية السعودية  
KINGDOM OF SAUDI ARABIA

Facilitating access to healthcare services

Improving quality and efficiency of health services

Promoting prevention of health risks

Improve quality of life in Saudi cities

Enhancing traffic safety

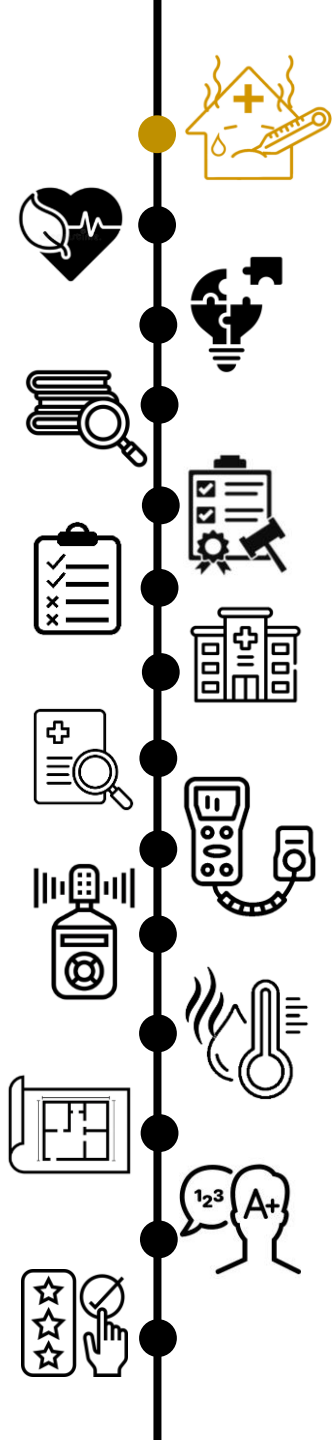
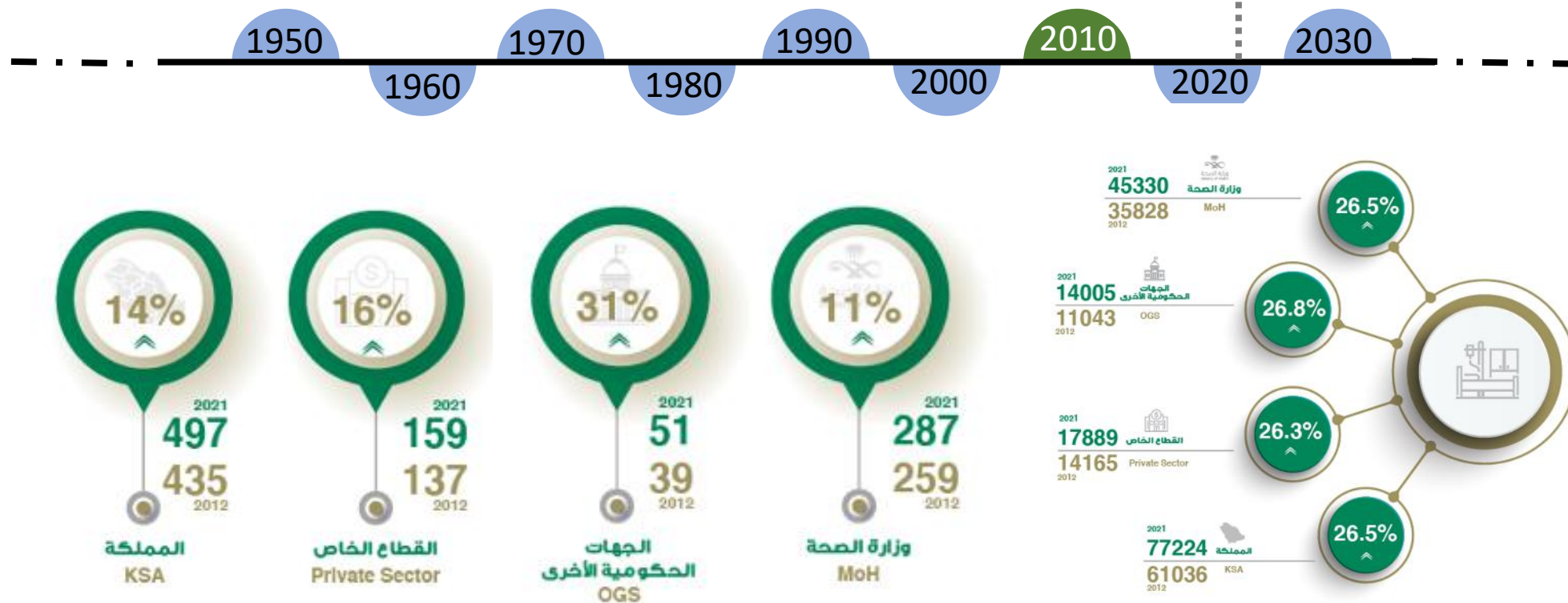
Improve health services

Enable full and healthy lives

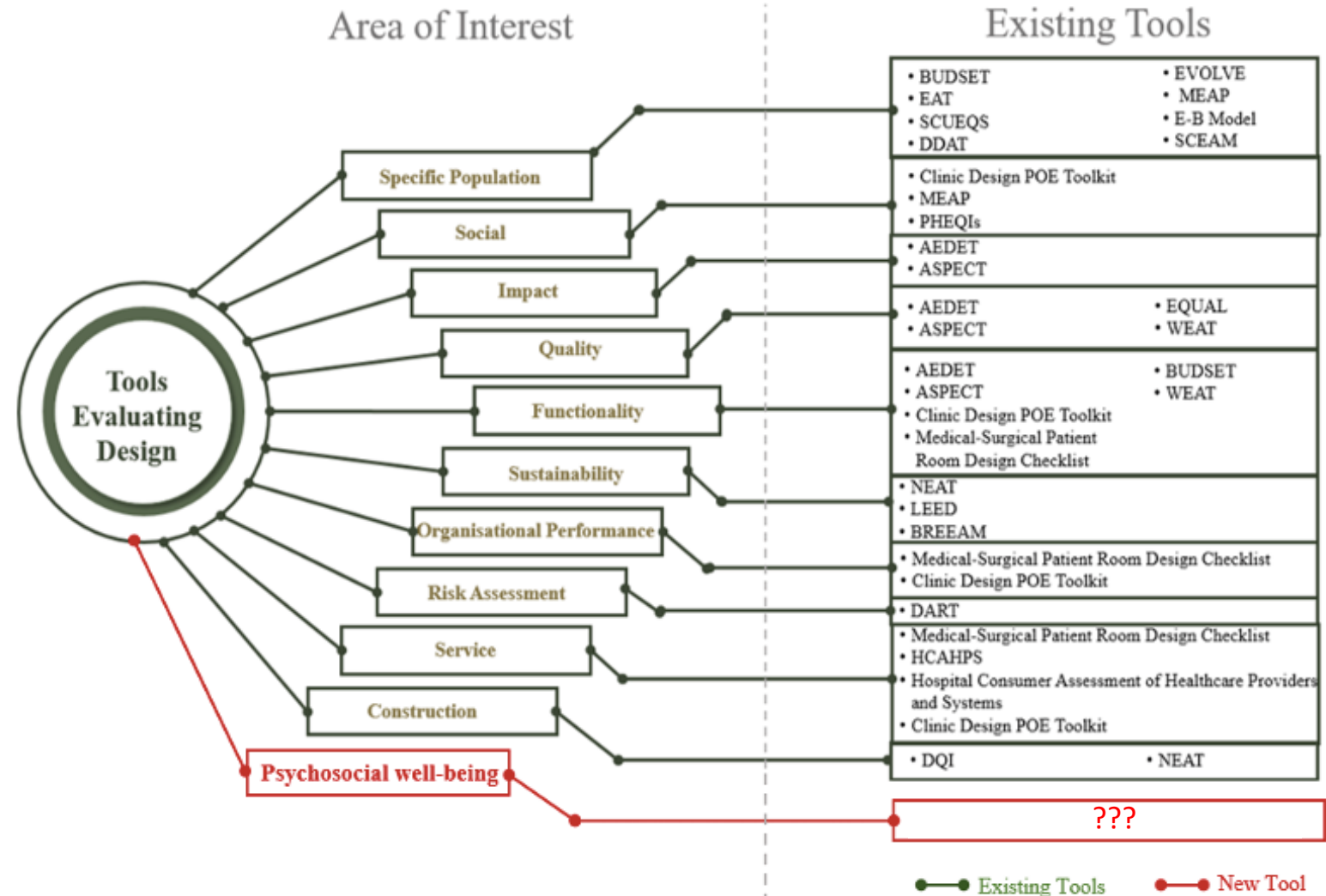
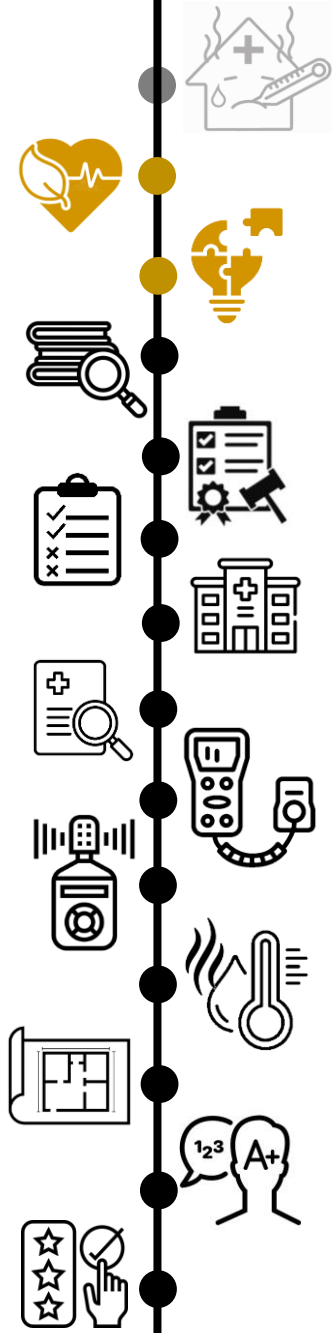
Vibrant society

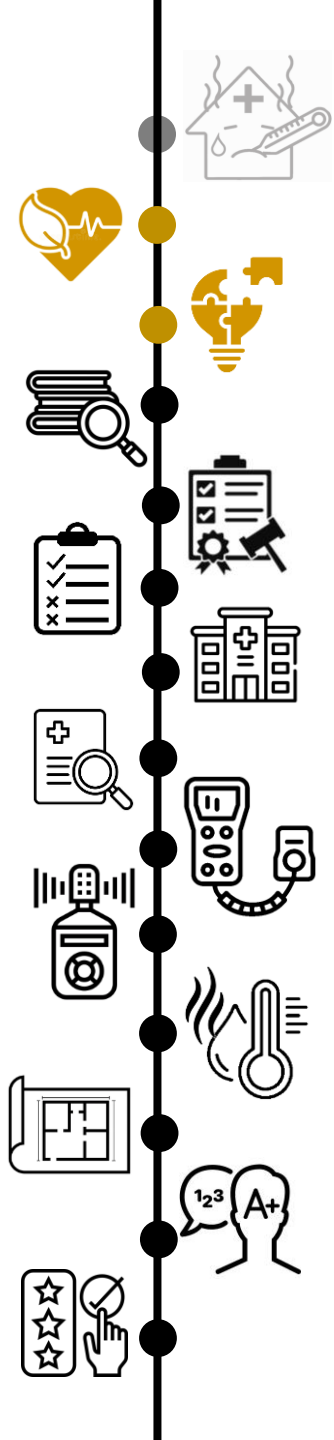
# Historical Background

## Health Budget Allocation



# Post-occupancy Evaluation





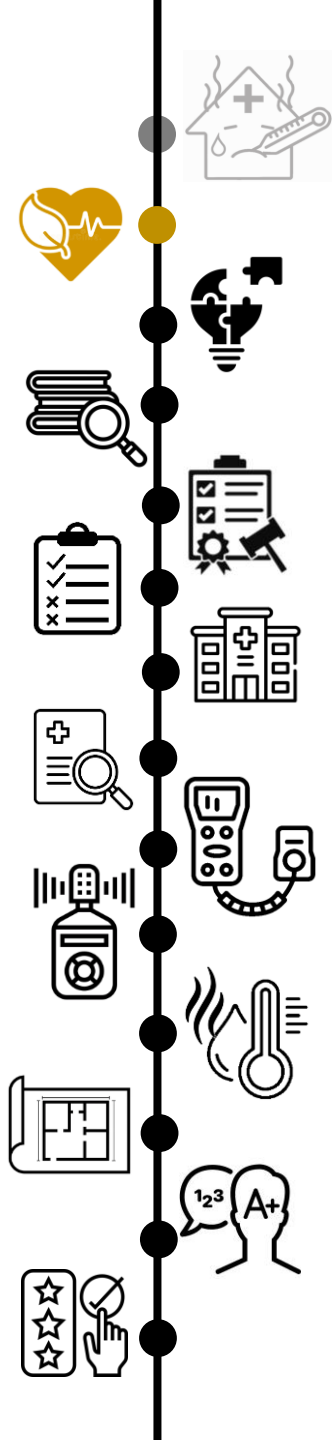
# Psychosocial Environment Impact Scale (PEIS)

Development

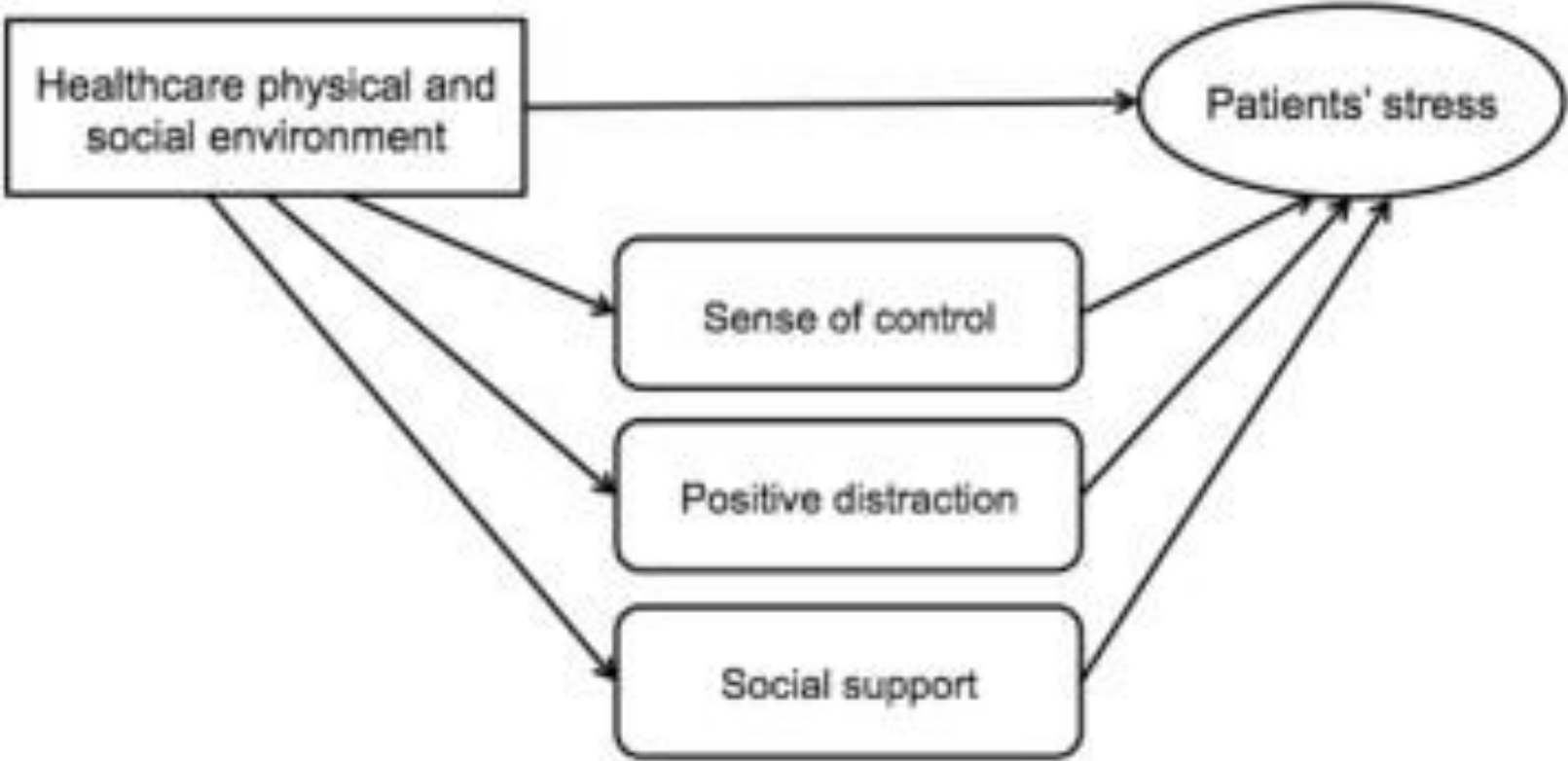
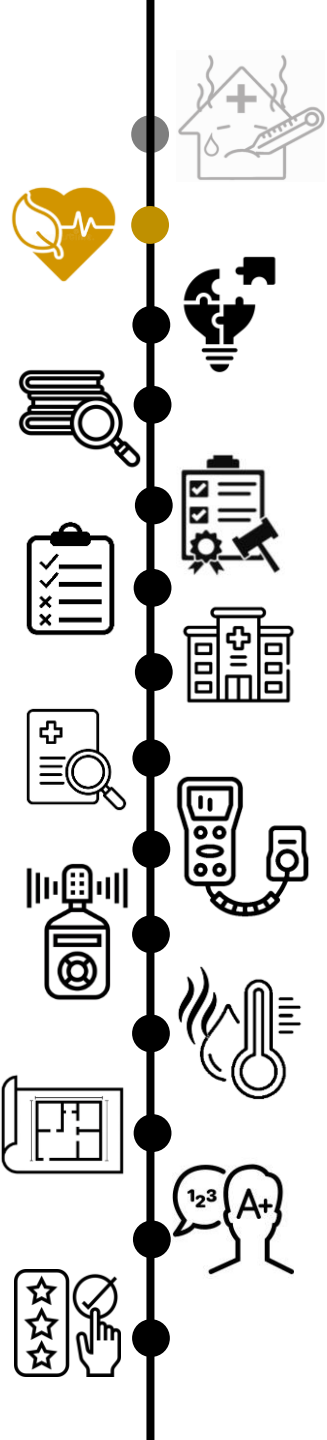
# The Value of Good Environmental Design Became Evident



**New theories Evidence-based approaches,  
and Regulations**

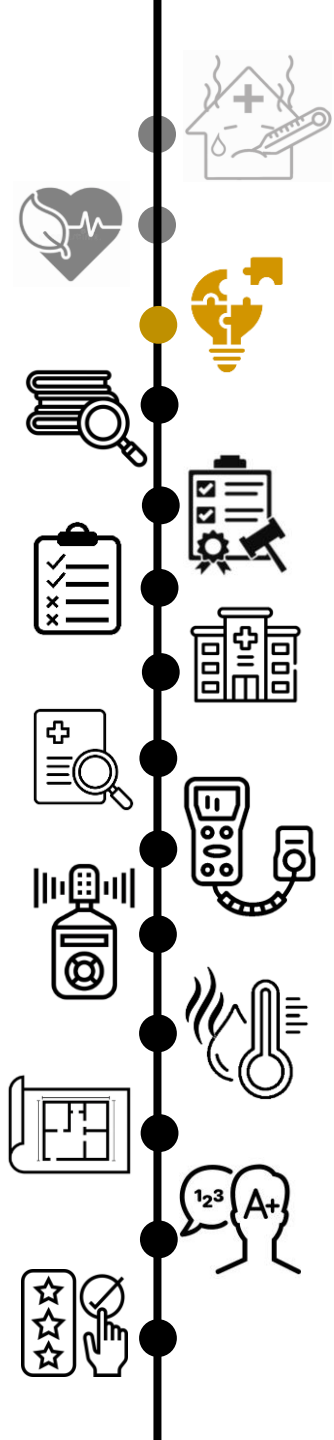
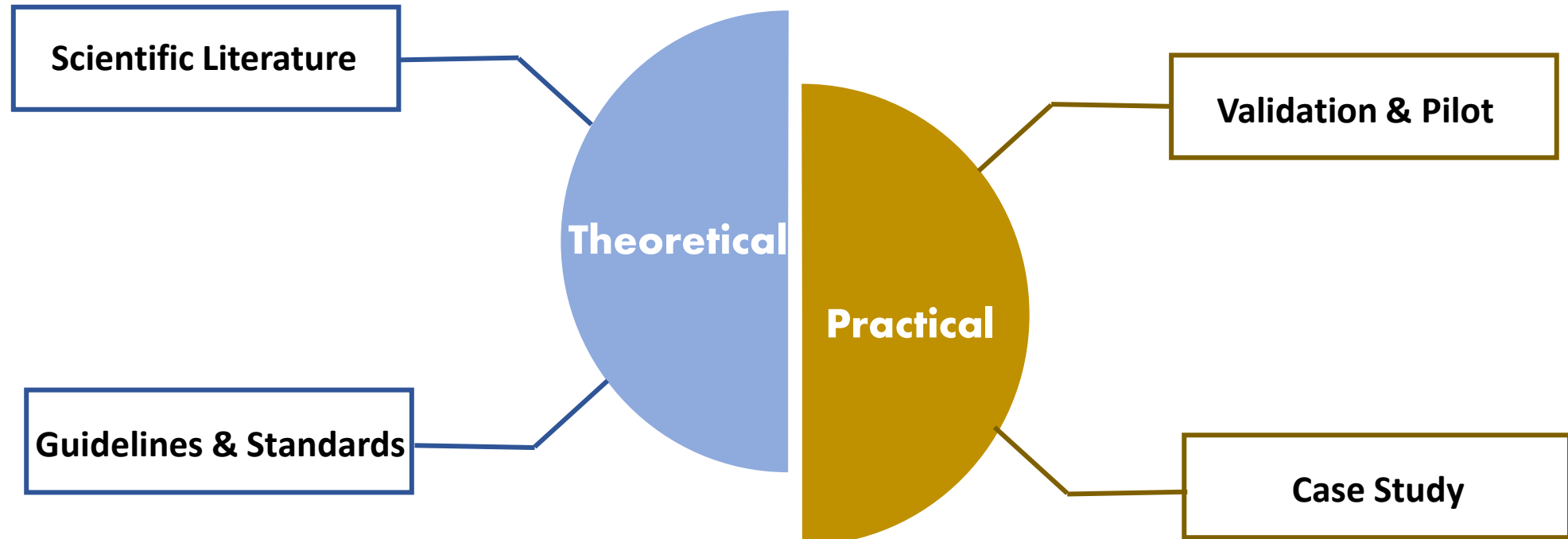


# Supportive Environment



The Theory of Supportive Design , 1991

# Tool Development



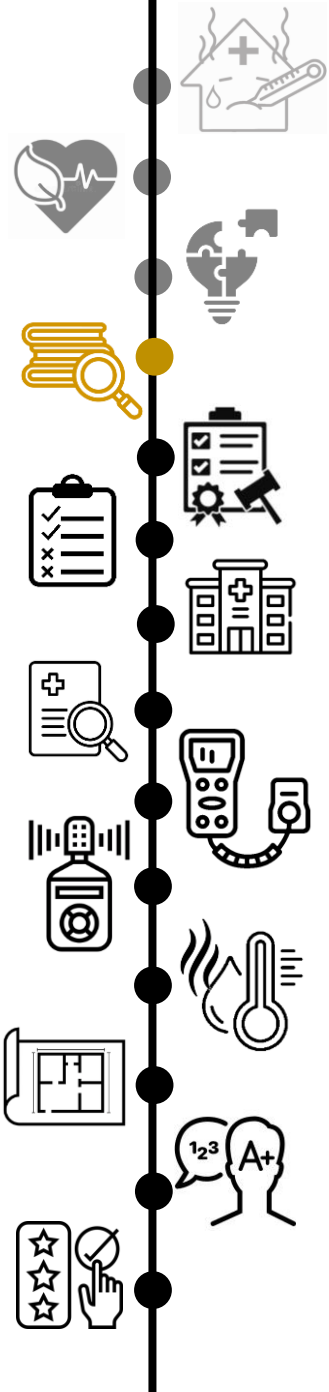
## Evidence Mapping vs. Systematic Review

Same in...

The process of data extraction

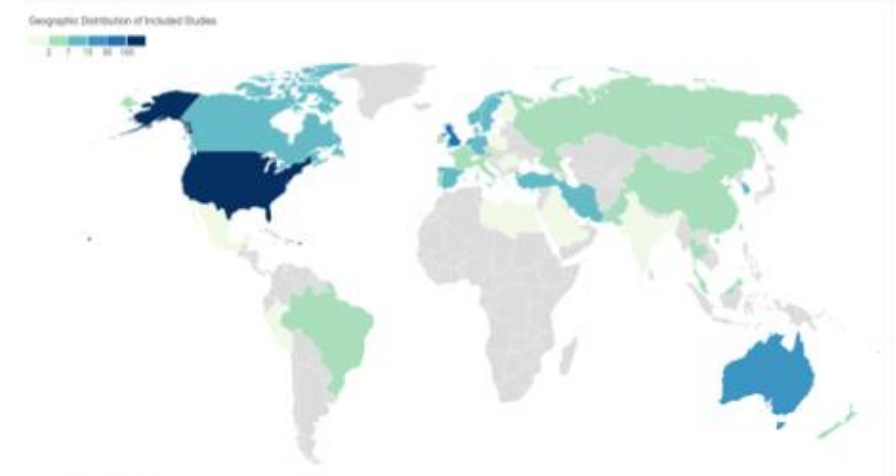
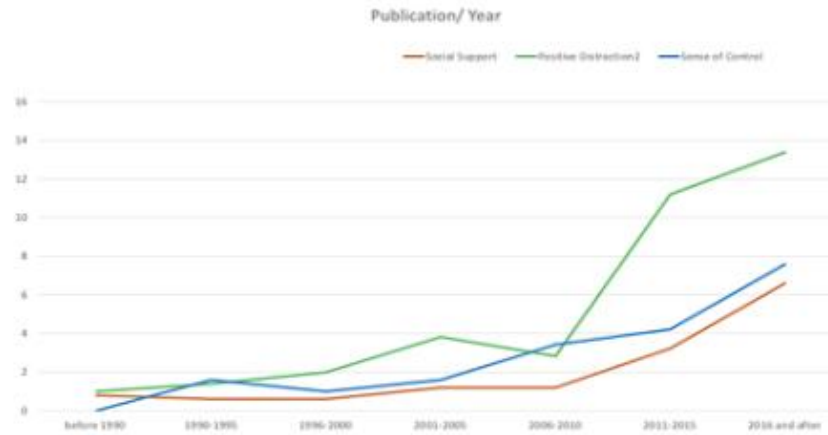
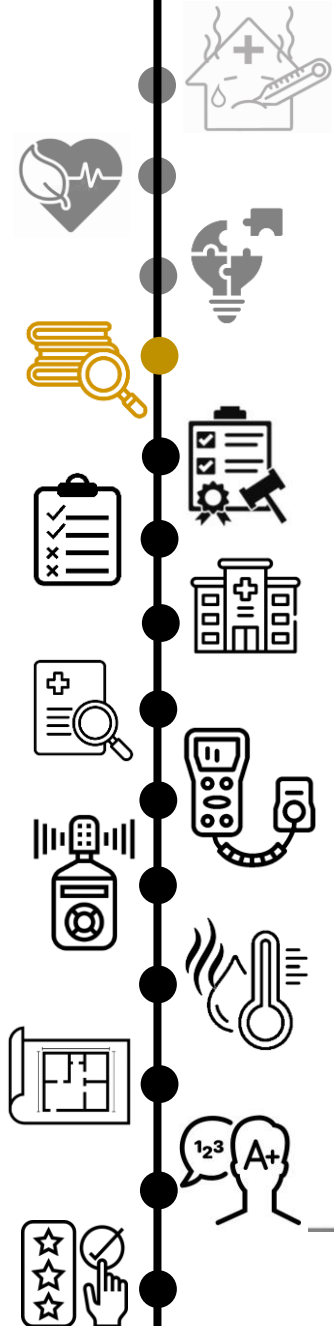
Different in...

the Scope Breadth , discussion, presenting the outcomes





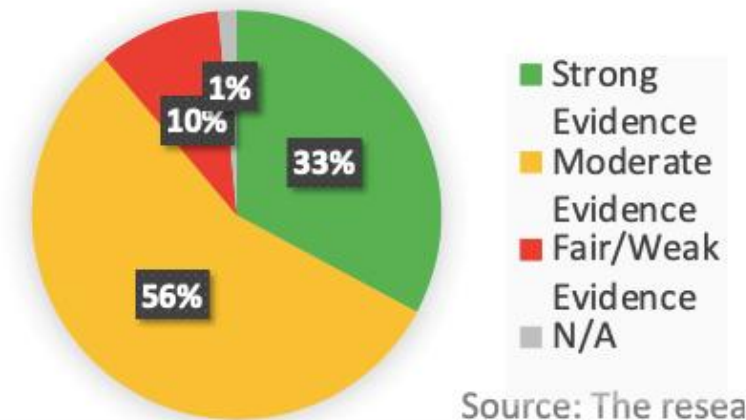
# Evidence Mapping



	PD	SC	SS
Pre-Design	64	54	50
Functional Planning & Layout	3	16	38
Interior Design	251	75	8

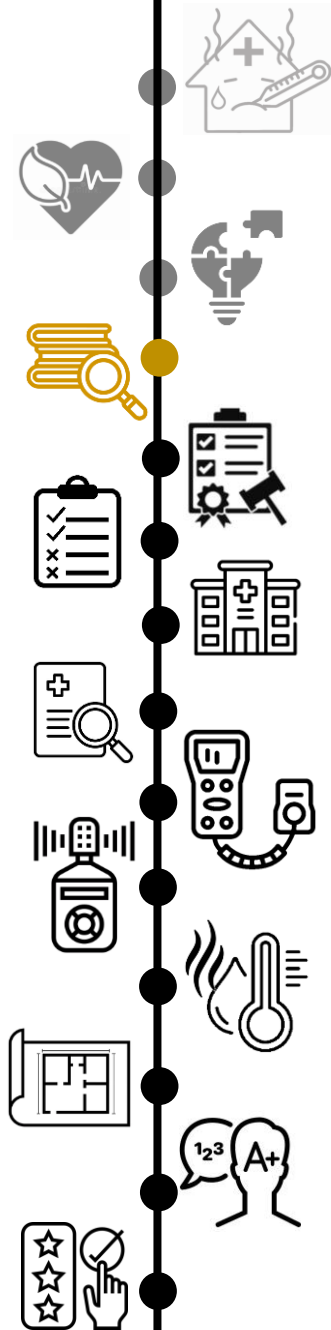
**No. of Studies**

Less  More

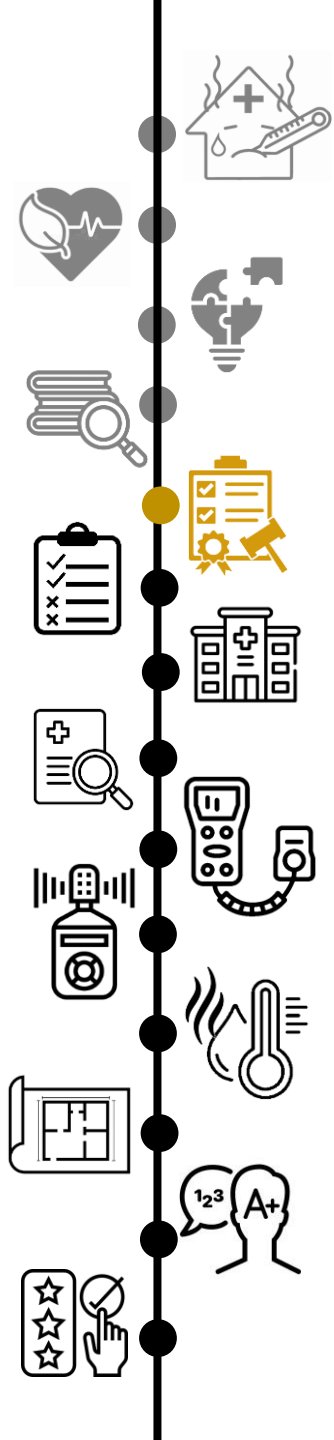


Source: The researche

# Evidence Mapping



Main Topics from the EM	Source(s) of Evidence from EM			
Activity room - e.g. for art practice, Yoga, Play area	PD-RODR1-13 MA-GARI1-13	PD-ALIX1-14 PD-DUNC1-11	PD-TAYL1-18	PD-LANK1-10
Social Area/ Space - Public Spaces	SS-LAMB1-14	SS-WEIN1-17		
Spiritual and religious facilities	SS-HOSS1-19	SS-MORA1-15	SS-RAND1-19	
Outdoor activity: Horticultural Therapy - Gardening	PD-MUGI1-11 PD-HEXX1-11	PD-JANG1-19 PD-KHAN2-16	PD-PIET1-19 PD-VUJC1-17	PD-VELD1-20
Family Area/ Accommodation - Visitor inclusion	SC-CHAU1-16 SS-DE M1-10 SS-SCHR1-10 SS-FRAN1-17	SC-MORG1-10 SS-COAT1-18 SS-BIEH1-19 SS-HUYN1-10	SC-WINN1-18 SS-PINE1-12 SS-PERS1-15	SS-LANT1-15 SS-WOOD1-18 SS-FOSS1-13
Outdoor Garden	PD-MCNA1-15 PD-CERV1-14 PD-DETW1-15 SS-ULRI1-20	PD-IVAR1-12 PD-JONV1-13 PD-PASH1-13	PD-PASH2-13 PD-WHIT1-01 PD-YARx1-10	SS-HABI1-19 PD-IQBA1-11 PD-ABDE1-19
Healing Garden	PD-SHER1-05 PD-VAND1-17	PD-VAND2-17	PD-SÖDE1-14	PD-GOOD1-11
Roof top	PD-POUY1-17	PD-DAVI1-11		
Plan to maximise the number of	SC-DAEM1-15 SC-BARR1-10 SC-THI,1-12 SC-FLOR1-19 SC-KEWA1-17	SC-ANAK1-19 SC-BEGG1-18 SC-BOYL1-19 SC-CARU1-14 SC-CEPE1-15	SC-CHAU1-16 SC-GOKC1-14 SC-HALA1-17 SC-HESK1-14 SC-ISLE1-13	SS-BIEH1-19 SC-WILL1-15 SS-PERS1-15 SC-YOUN1-17 SS-ROWL1-19



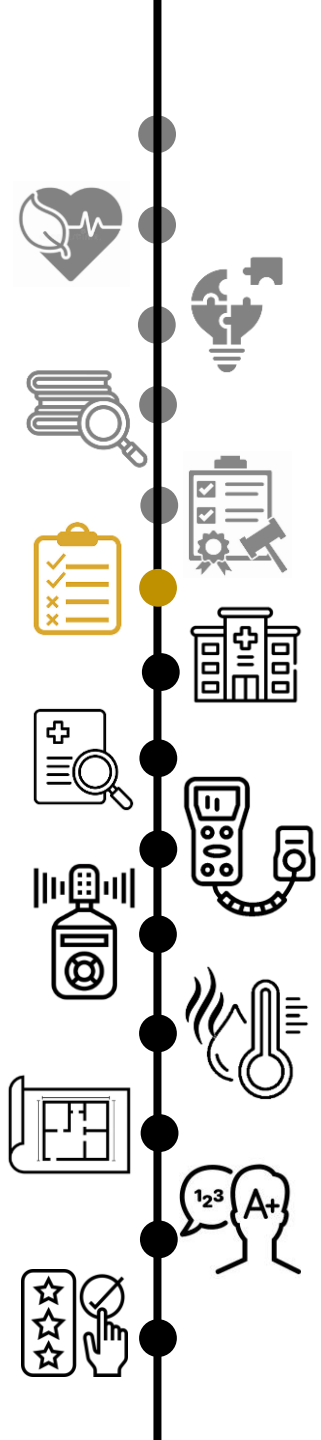
# CBAHI

المركز السعودي لاعتماد المنشآت الصحية  
Saudi Central Board for Accreditation  
of Healthcare Institutions

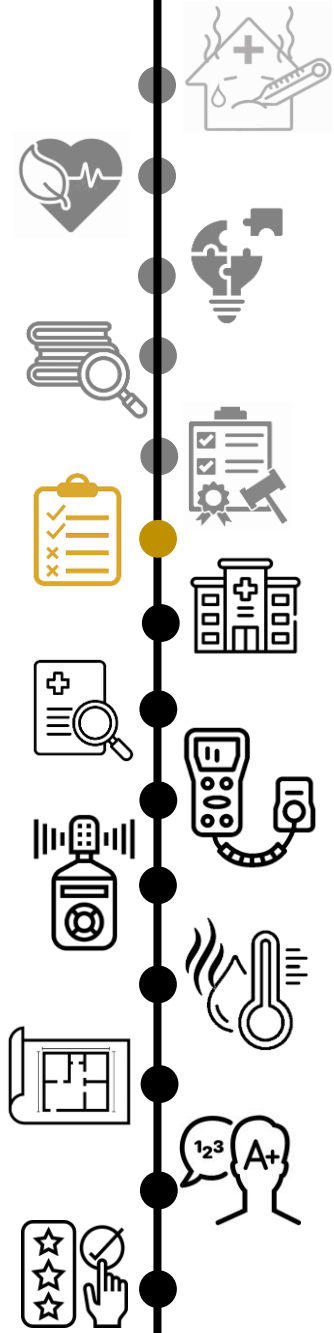


# Psychosocial Environment Impact Scale -PIES-

		Ward's Level			Room's Level	
Parameter		Facilities & Services	Layout & Planning	Ambient Environment	Layout & Design	Ambient Environment
Sub-Parameter	Social Areas		Layout type	Natural Light	Layout	Natural Light
	Outdoor Gardens		Rooms Counts	Artificial light	Room Area	Artificial light
	Prayer areas		Waiting Areas	Noise	Interior Design	Noise
			Nurse Stations	Odours	Furniture & Fixtures	Odours
				Temprature		Temprature



# Psychosocial Environment Impact Scale -PIES-





# PIES Questions

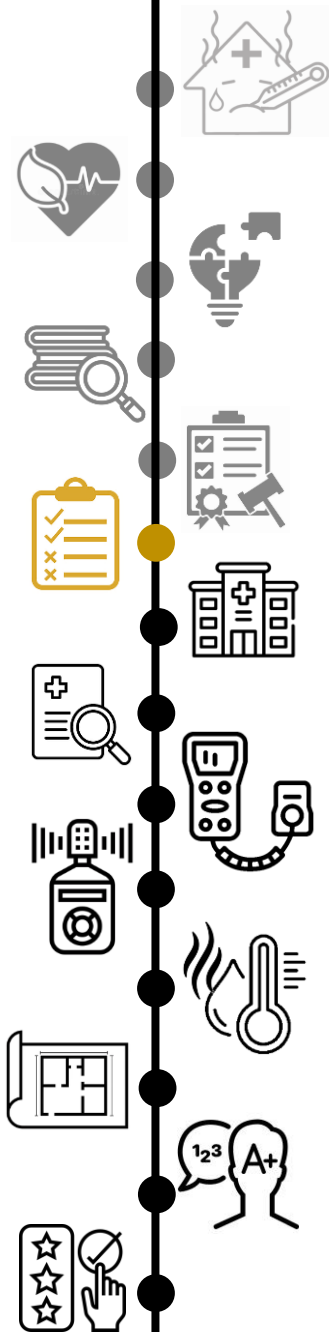
## General Information

## Domain

- Social Support
- Positive Distraction
- Sense of Control
- Delivery of Care

General Info	
Unit Numbe, Floor , Building	4D, Floor 4, Main Tower
What is the unit layout type?	Linear

No. & Domain	Question	Yes 1	No 2	NU 3	NA 4
1	Are there outdoor Gardens/ Healing gardens/ Roof top gardens that are accessible by patients?		2		
2	Do These spaces have Resting areas (Benches)?				4
3	Are these spaces have shades (e.g. Pergolas)?				4
4	Are these spaces are prepared to perform any activities (e.g. gardening)				4
5	Do the ward has a Gender-segregated waiting area?		2		
6	Is there a Gender-segregated waiting area outside the ward?		2		
7	Is there a common waiting area inside the ward?		2		
8	Is there a common waiting area outside the ward?	1			
9	Is there a Multi-purpose/ Day room that is used for social activities?			3	
10	Is there a Gender-segregated prayer area on the designated		2		
11	Is there a Gender-segregated prayer area on the floor immediately above or below?		2		
12	Is the Nurse station in the centre of the ward?	1			
13	Does the ward accommodate at least 50% single-occupancy rooms?		2		
14	Does the ward accommodate at least 80% single-occupancy rooms?		2		
15	According to availability, can the patient choose the room where they stay in, or change the room (bed) they are assigned to if possible?	1			
16	Do corridors have window(s) that provide(s) sunlight during the day?	1			
17	Do the windows receive indirect sunlight, rather than direct light?	1			



# PIES Questions

## General Information

## Domain

## Questions

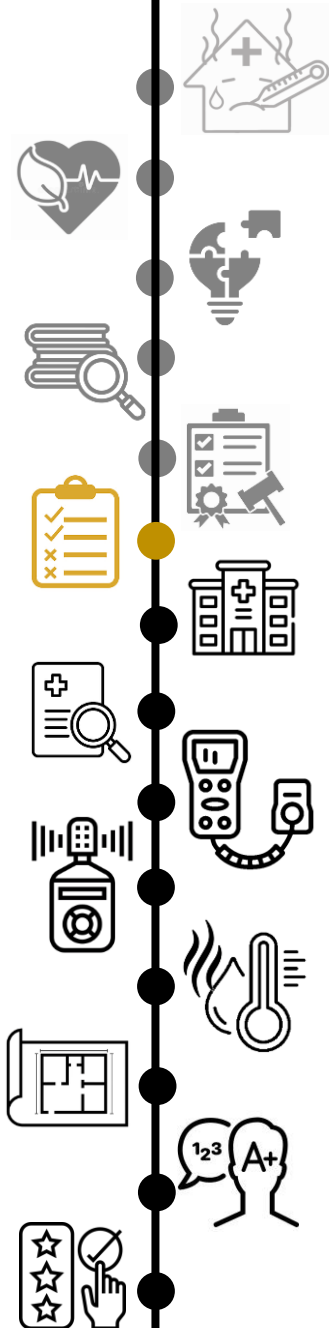
Follow-up question

Branching question

Skip logic question

General Info	
Unit Numbe, Floor , Building	4D, Floor 4, Main Tower
What is the unit layout type?	Linear

No. & Domain	Question	Yes 1	No 2	NU 3	NA 4
1	Are there outdoor Gardens/ Healing gardens/ Roof top gardens that are accessible by patients?		2		
2	↳ Do These spaces have Resting areas (Benches)?				4
3	↳ Are these spaces have shades (e.g. Pergolas)?				4
4	↳ Are these spaces are prepared to perform any activities (e.g. gardening)				4
5	Do the ward has a Gender-segregated waiting area?		2		
6	↳ Is there a Gender-segregated waiting area outside the ward?		2		
7	↳ Is there a common waiting area inside the ward?		2		
8	↳ Is there a common waiting area outside the ward?	1			
9	Is there a Multi-purpose/ Day room that is used for social activities?			3	
10	Is there a Gender-segregated prayer area on the designated		2		
11	↳ Is there a Gender-segregated prayer area on the floor immediately above or below?		2		
12	Is the Nurse station in the centre of the ward?	1			
13	↳ Does the ward accommodate at least 50% single-occupancy rooms?		2		
14	↳ Does the ward accommodate at least 80% single-occupancy rooms?		2		
15	According to availability, can the patient choose the room where they stay in, or change the room (bed) they are assigned to if possible?	1			
16	Do corridors have window(s) that provide(s) sunlight during the day?	1			
17	↳ Do the windows receive indirect sunlight, rather than direct light?	1			



# PIES Questions

## General Information

## Domain

## Questions

## Answers

## Observation

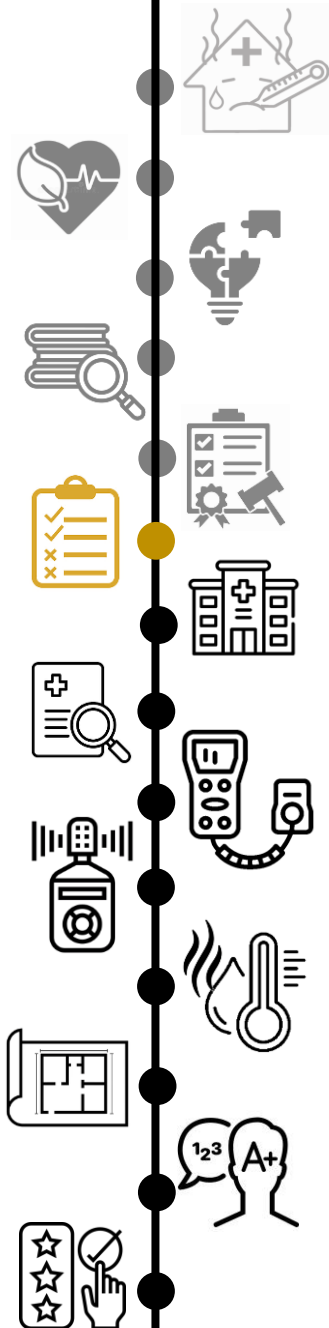
## Continuous Monitoring

## Spot Readings

## Architectural Drawings

General Info	
Unit Numbe, Floor , Building	4D, Floor 4, Main Tower
What is the unit layout type?	Linear

No. & Domain	Question	Yes 1	No 2	NU 3	NA 4
1	Are there outdoor Gardens/ Healing gardens/ Roof top gardens that are accessible by patients?		2		
2	└ Do These spaces have Resting areas (Benches)?				4
3	└ Are these spaces have shades (e.g. Pergolas)?				4
4	└ Are these spaces are prepared to perform any activities (e.g. gardening				4
5	Do the ward has a Gender-segregated waiting area?		2		
6	└ Is there a Gender-segregated waiting area outside the ward?		2		
7	└ Is there a common waiting area inside the ward?		2		
8	└ Is there a common waiting area outside the ward?	1			
9	Is there a Multi-purpose/ Day room that is used for social activities?			3	
10	Is there a Gender-segregated prayer area on the designated		2		
11	└ Is there a Gender-segregated prayer area on the floor immediately above or below?		2		
12	Is the Nurse station in the centre of the ward?	1			
13	└ Does the ward accommodate at least 50% single-occupancy rooms?		2		
14	└ Does the ward accommodate at least 80% single-occupancy rooms?		2		
15	According to availability, can the patient choose the room where they stay in, or change the room (bed) they are assigned to if possible?	1			
16	Do corridors have window(s) that provide(s) sunlight during the day?	1			
17	└ Do the windows receive indirect sunlight, rather than direct light?	1			



# PIES Results

## General Information

## Domain

General Info	
Unit Number, Floor, Building	4D, Floor 4, Main Tower
What is the unit layout type?	Linear

No. & Domain	Question	Yes 1	No 2	NU 3	NA 4
1	Are there outdoor Gardens/ Healing gardens/ Roof top gardens that are accessible by patients?		2		

Ward 4D				
	SS	PD	SC	DC
Y	4	4	1	7
No or NU	9	7	4	4
NA	7	4	0	1

Room 468				
	SS	PD	SC	DC
Y	9	13	11	9
No or NU	6	16	15	1
NA	3	3	1	1

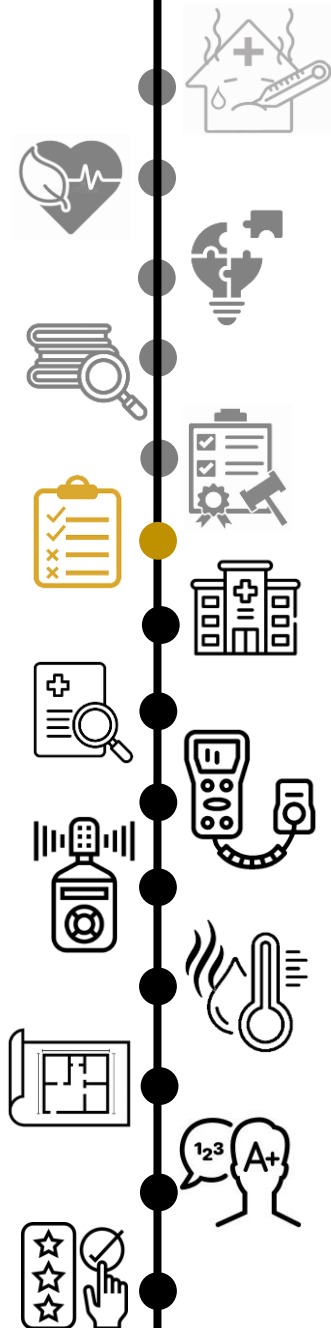
11	Is there a garden immediately above or below?		2		
12	Is the Nurse station in the centre of the ward?	1			
13	Does the ward accommodate at least 50% single-occupancy rooms?		2		
14	Does the ward accommodate at least 80% single-occupancy rooms?		2		
15	According to availability, can the patient choose the room where they stay in, or change the room (bed) they are assigned to if possible?	1			
16	Do corridors have window(s) that provide(s) sunlight during the day?	1			
17	Do the windows receive indirect sunlight, rather than direct light?	1			

Observation

Continuous Monitoring

Spot Readings

Architectural Drawings





# From Theory to Practice

Case Study

## Case Study



**King Fahd University Hospital, Al Khobar City  
-KFUH-**



# About KFUH



**Year Built:** 1970

**Year Inauguration:** 1981

**Affiliation:** Imam Abdulrahman University

**Design:** Tower on a Podium

**Bed Capacity:** Approx. 435 beds

**Accreditation:** JCI, CAP, CBAHI, IAC





# Case 1

## Case study 1: Public Services Ward

Location: Main Tower

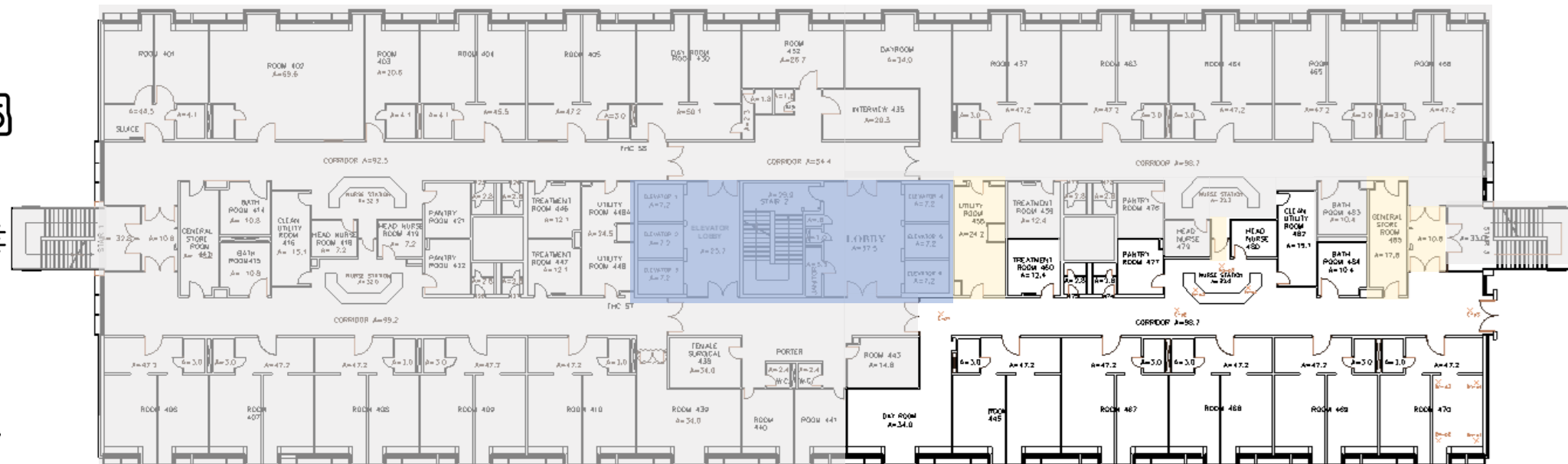
Floors: 4

Wards: 4

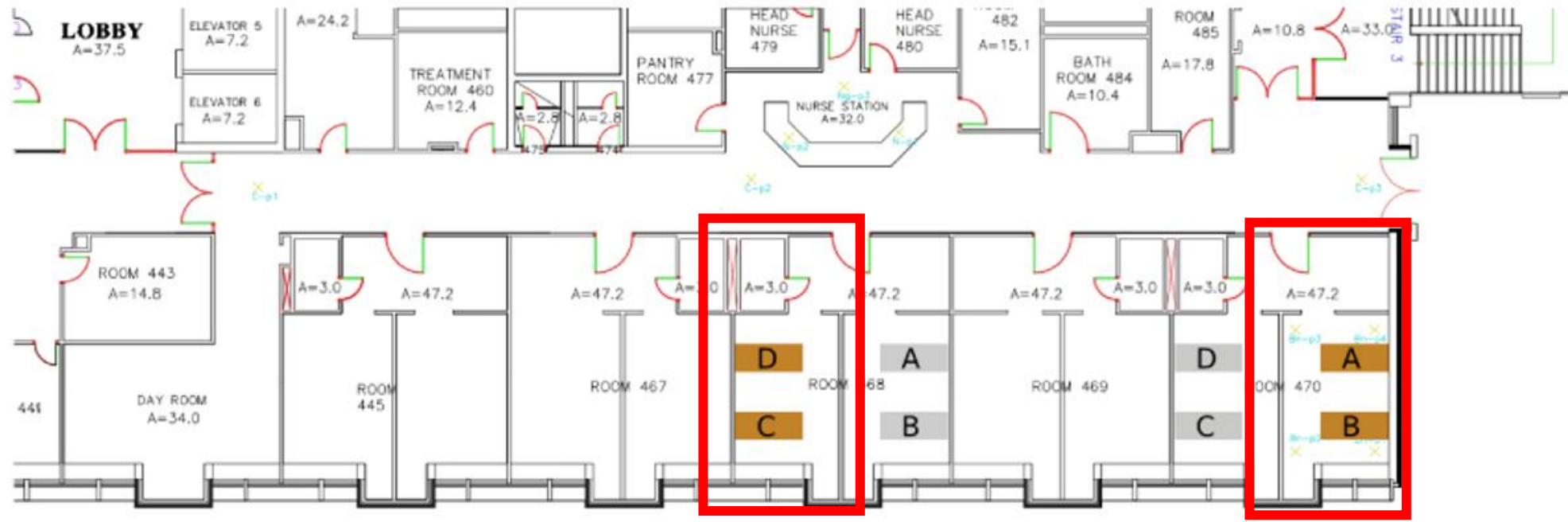
Type of Rooms: Multi-occupancy

No. of Rooms : 11

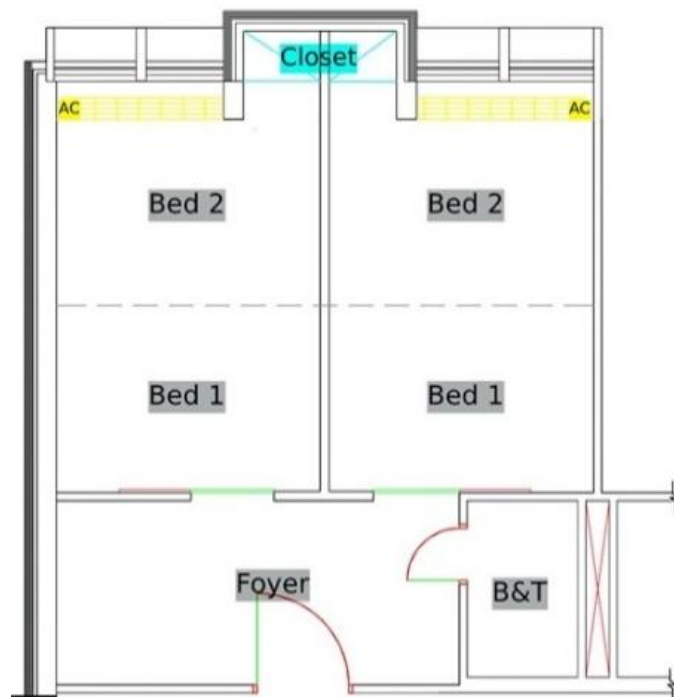
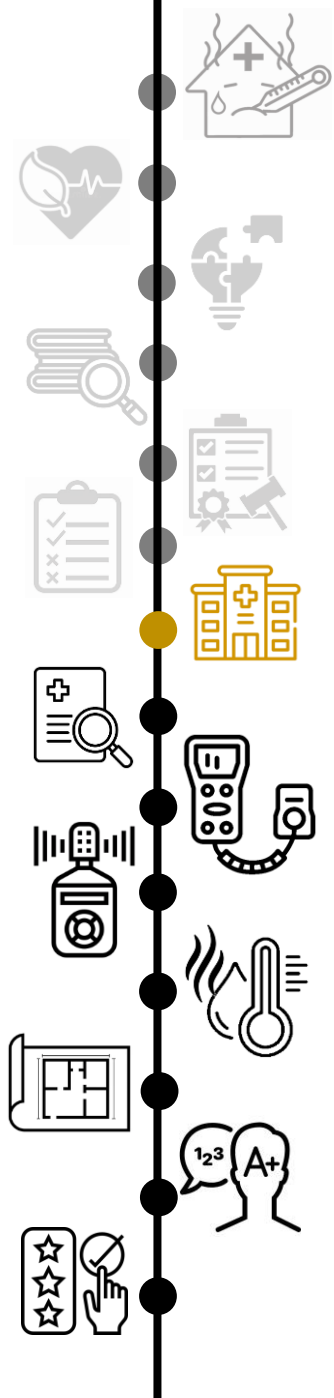
No. of Patients: 21



# Case 1



# Case 1



## Case study : Private Services Ward

Location: VIP Building

Type of Rooms: Single-occupancy

Floors: 2

No. of Rooms: 11

Wards: 2

No. of Patients: 11



## Case 2





# Observation

Site visit is an approach to obtain information about specific features through observation.

**Presence/  
Absence**

Is there a window?

**Quality of  
Feature**

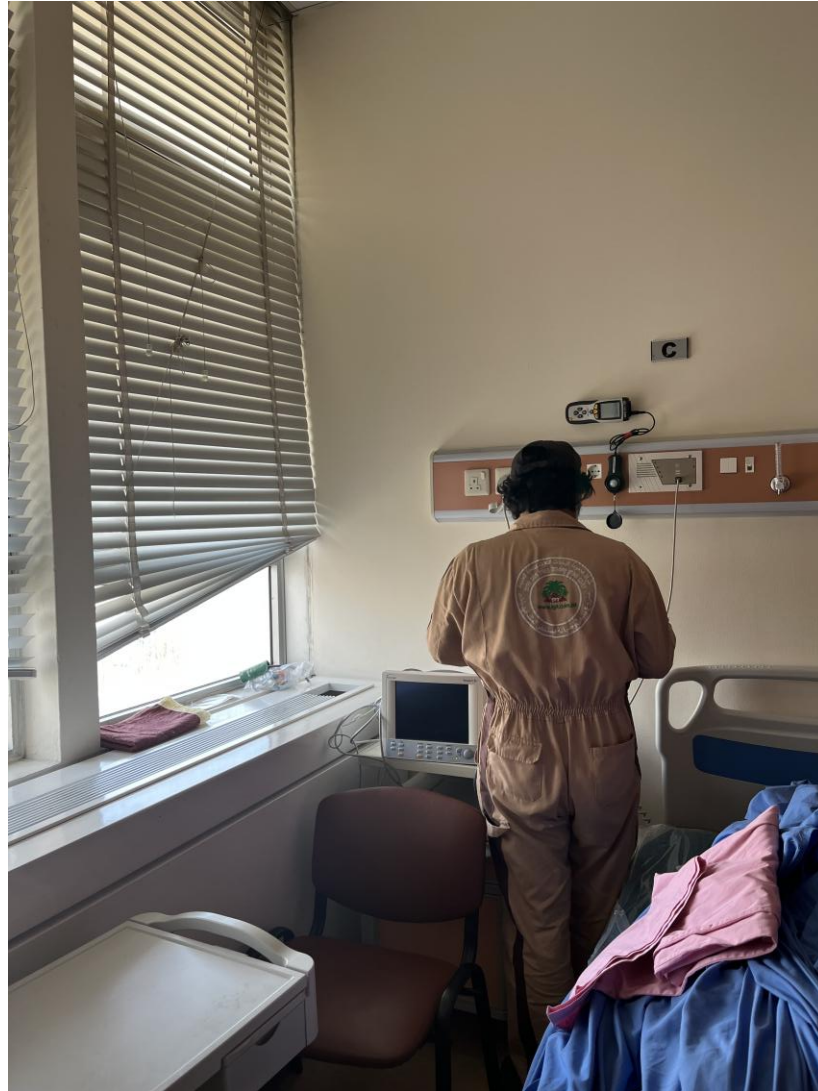
Is the window overlooking a natural view/ roof garden (greenery)?

**Pleasantness/  
intensity**

If a smell is identified, is it pleasant?

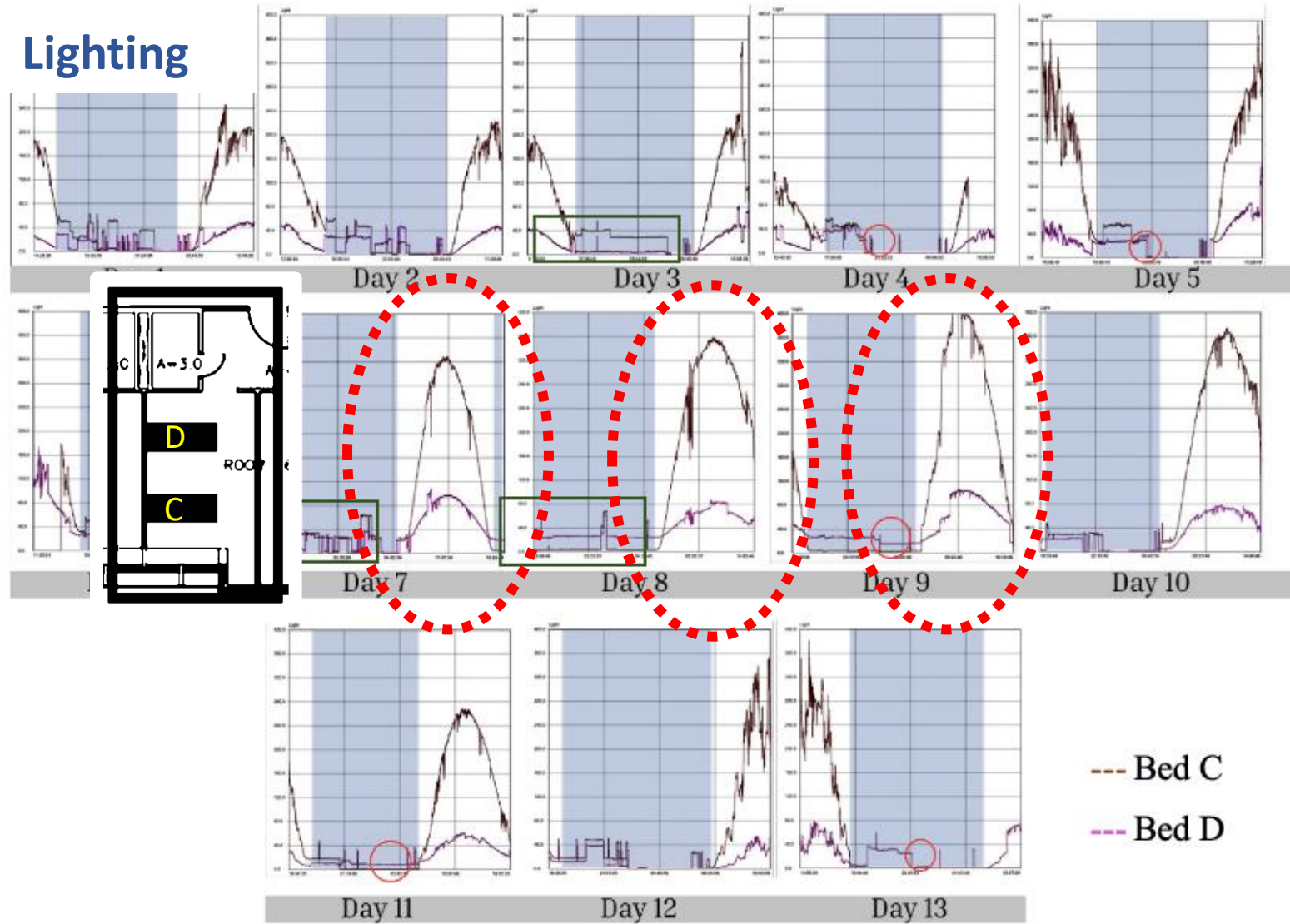


# Monitoring



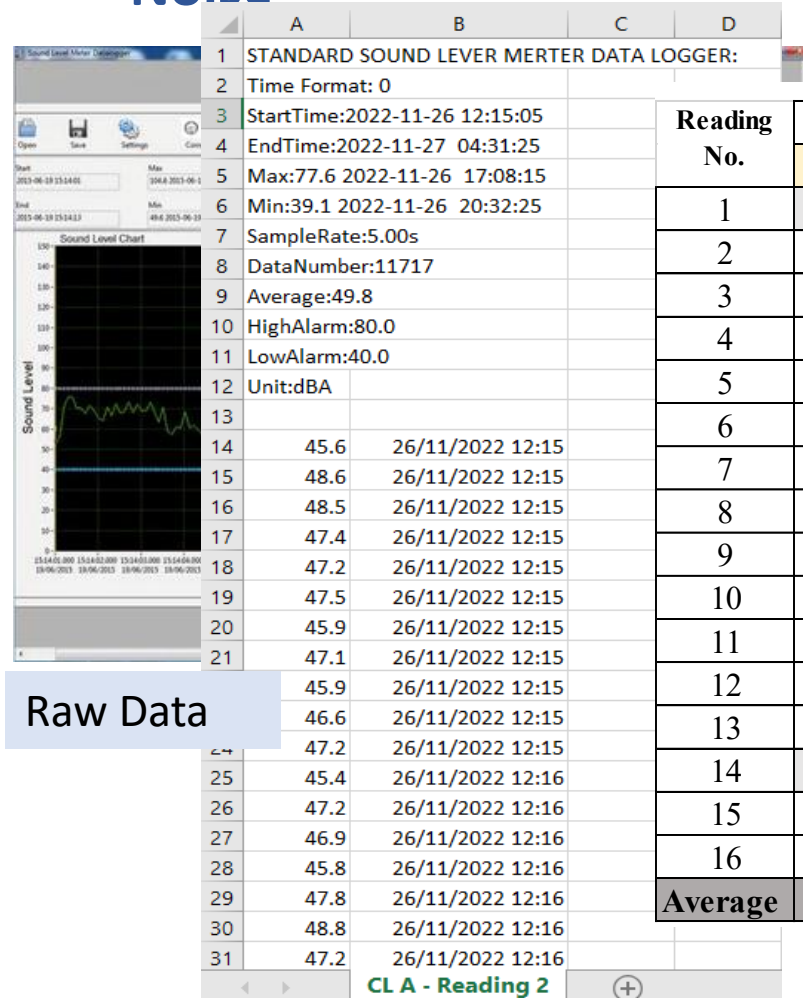
# Monitoring

## Lighting



# Monitoring

## Noise

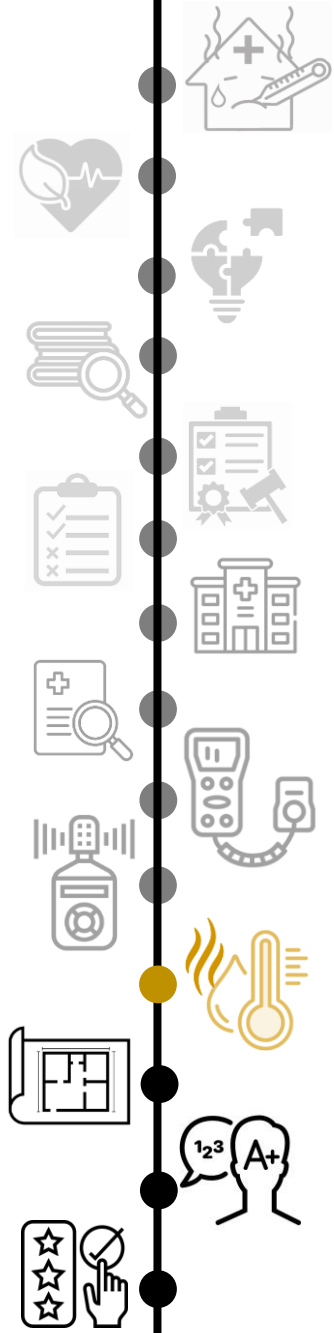


Reading No.	Room 433		Room 440		Room 443	
	Day	Nigh	Day	Nigh	Day	Nigh
1					52.5	46
2	52.6	52.6	43.7	43.4	55	43
3	50.2	49.4	43.6	43.5	51.1	45.2
4	47.4	42.3	44.4	43.7	46.2	45.9
5	47.2	41.2	46.4	43.9	48.4	45.9
6	40.5	39	45.3	43.7	47.4	48.8
7	42.1	40	43.9	43.8	48.3	44
8	37.4	38.4	44.1	44.3	47.3	40.3
9	37.8	37.7	44.4	44.3	49.1	48.5
10	38.9	39	45	44.5	51.3	43.8
11	38.6	38.6	44.3	44.4	44.7	40.4
12	38.7	39.5	45.1	43.2	42.5	39
13	38	38.2	40.2	39.3	43.2	39.4
14			41.4	42.4	42.7	41
15	37.3	38.3	47.7	41	48.3	44.5
16	42.8	41.2	42.3	42.1	48	44.1
<b>Average</b>	<b>42.1</b>	<b>41.1</b>	<b>44.1</b>	<b>43.2</b>	<b>47.9</b>	<b>43.7</b>

Raw Data

Analysed Data





## Devices



**4-in-1 environment meter for sound, light, humidity, and temperature.**

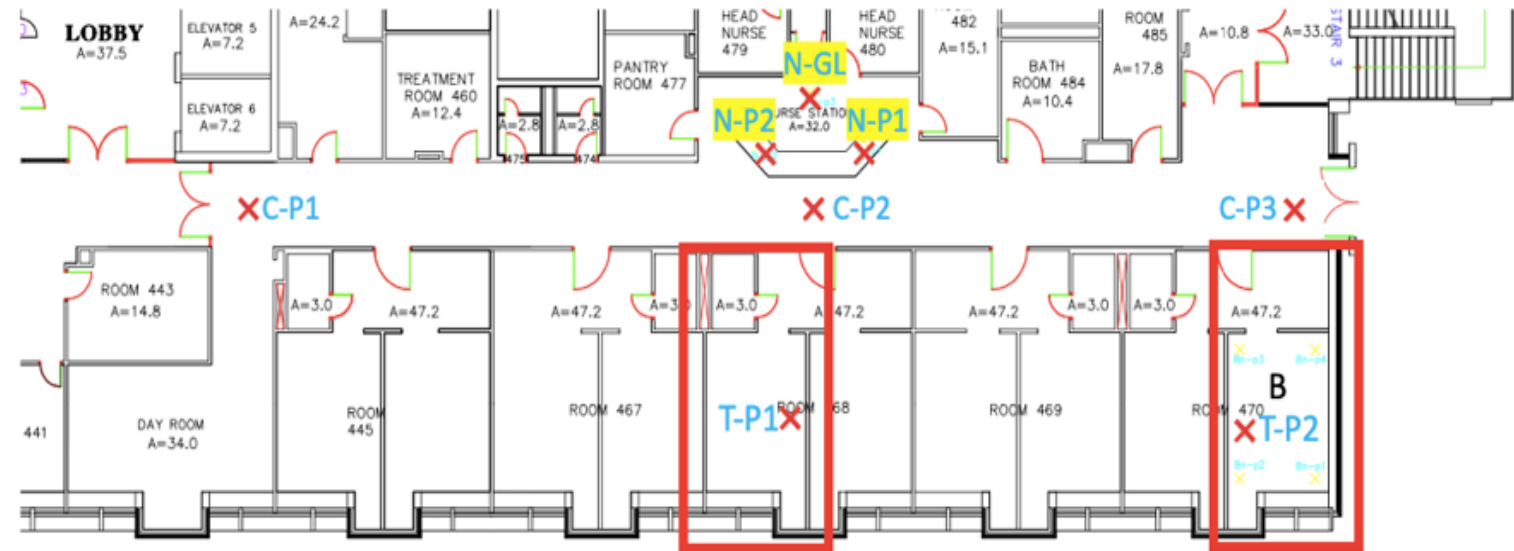
## Spot Readings



**Hedonic Tone for Smells Identification, Pleasantness and Intensity**

# Spot Readings

## Location

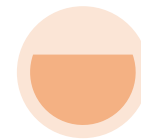


## Frequency



Morning

06:00 - 11:00



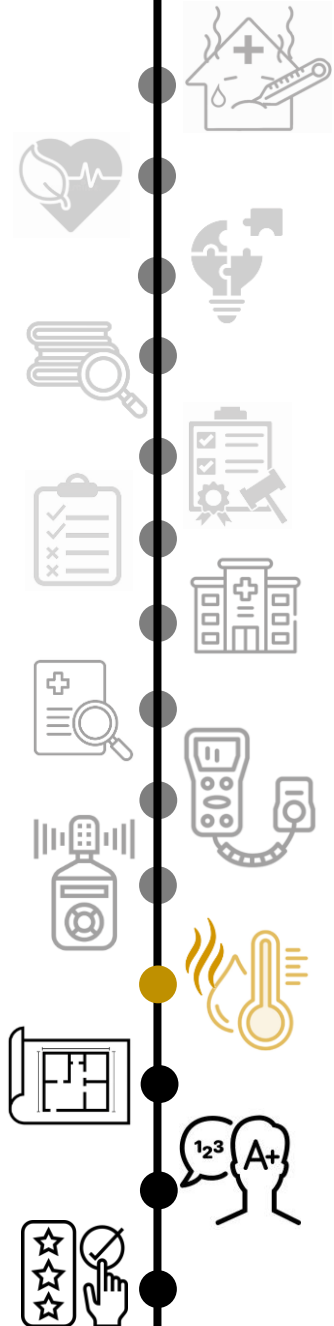
Afternoon

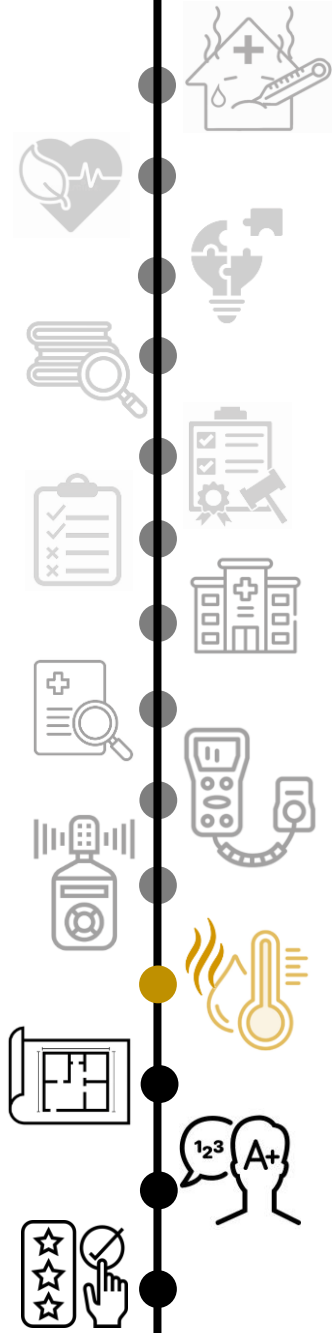
12:00 - 17:00



Evening

18:00 - 00:00





# Spot Readings



## Noise

Noise level ranges and their prevalence as a percentage of total measurement time.

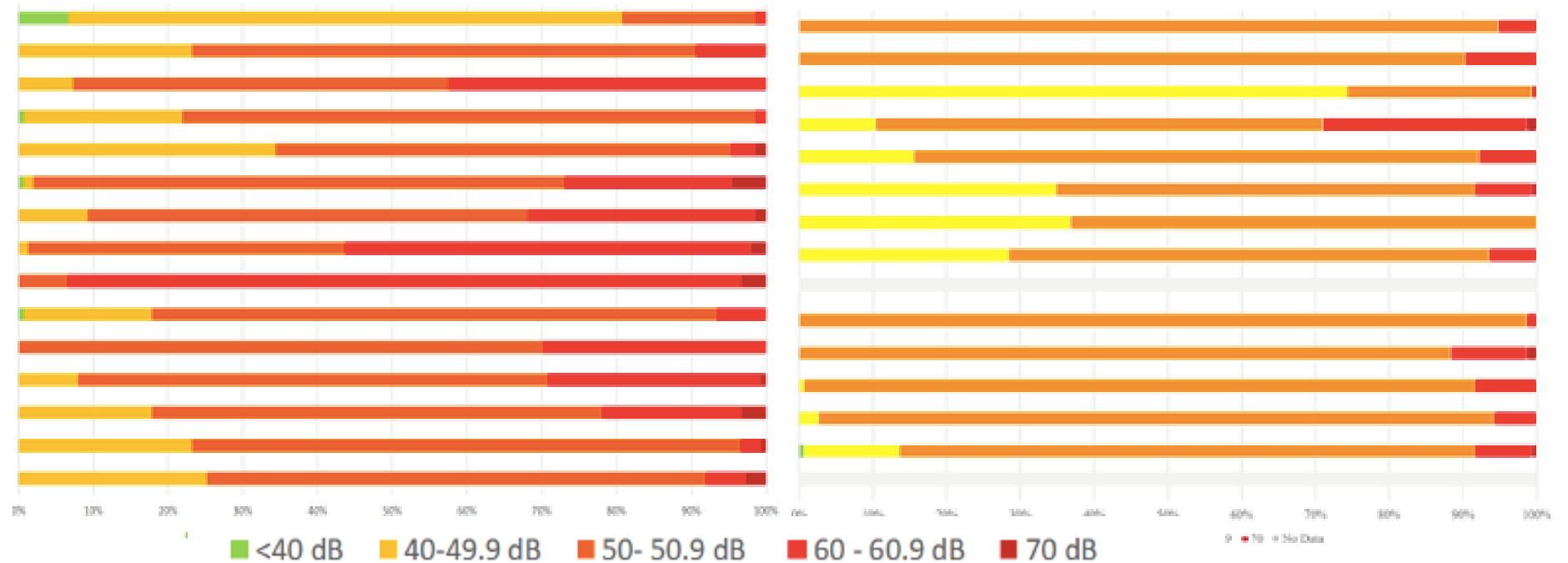
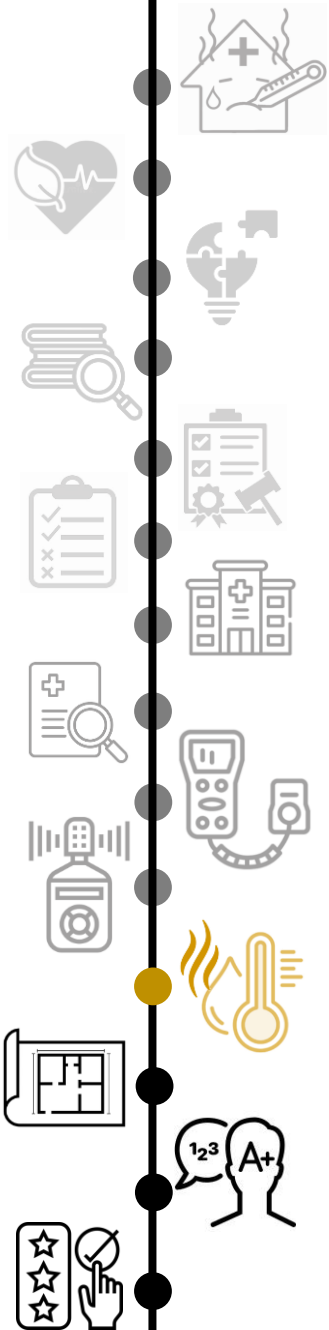
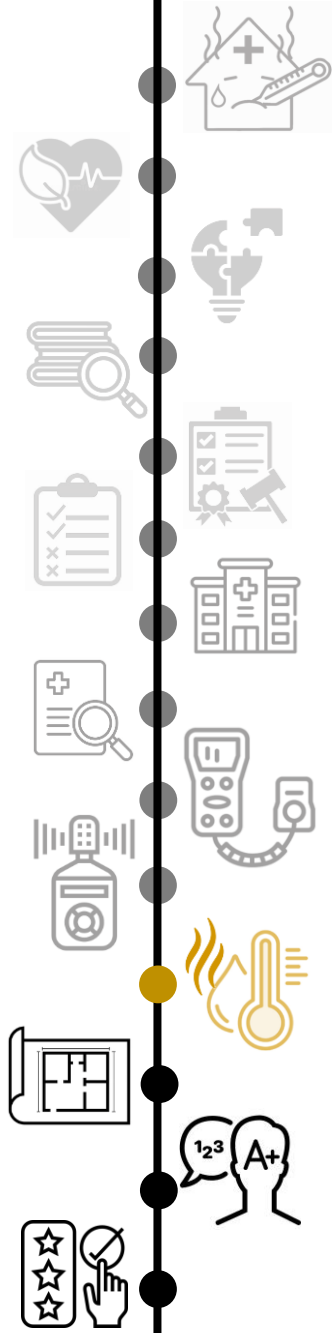


Figure 7.8 Noise levels by period in 4D

Figure 7.9 Noise levels by period in 4E



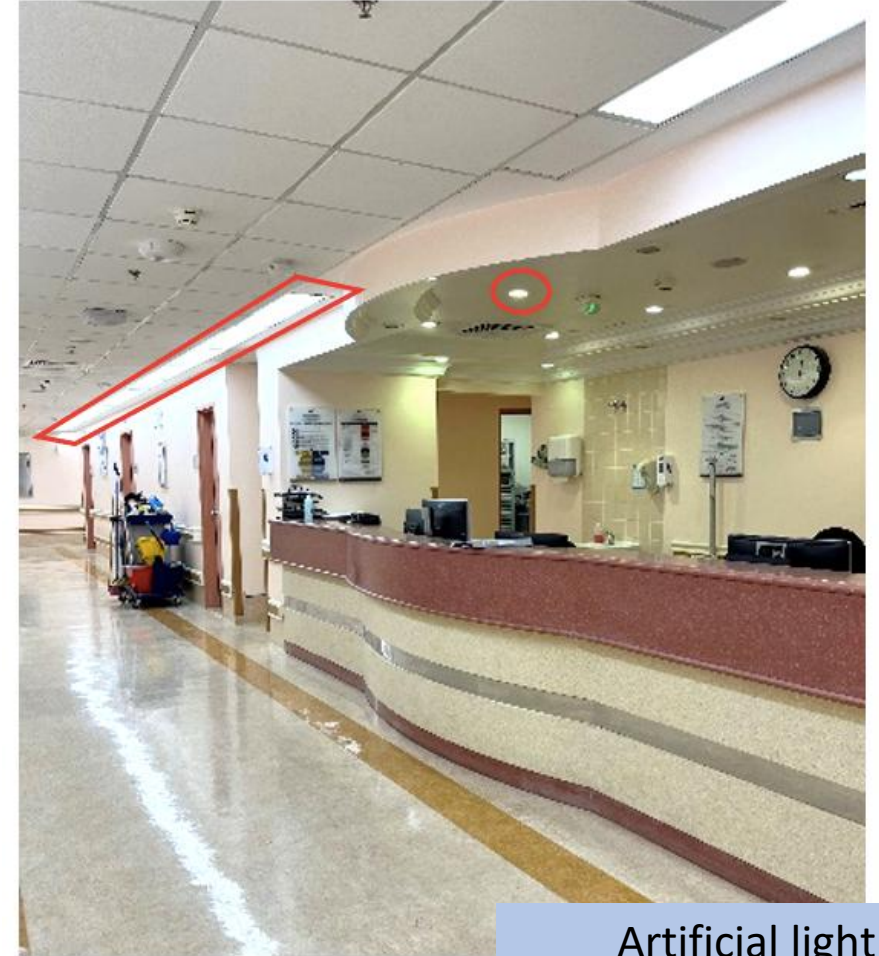


## Lighting

Natural Light



## Spot Readings



Artificial light

# Spot Readings

## Lighting

	Day 1: Fri	Day 1: Fri	Day 2: Sat	Day 3: Sun	Day 4: Mon	Day 4: Mon	Day 5: Tues	Day 6: Wed	Day 6: Wed	Day 7: Thurs	Day 7: Thurs	Day 8: Fri	Day 9: Sat	Day 10: Sun	Day 10: Sun	Average		
	14:30	19:30	10:30	10:45	10:40	23:00	09:30	10:30	14:30	14:15	21:30	18:30	14:30	16:15	21:20	Morning	Afternoon	Night
Corridor																		
C-p1	1333	1333	1366	1373	1392	1322	970	1033	976	979	918	1035	1002	1297	1276	1227	1117	1176.8
C-p2	1078	1070	1070	1125	1106	1040	994	1023	983	967	974	701	655	1078	1051	1064	952.2	967.2
C-p3	1375	1316	1174	1360	1417	1317	1339	1317	1315	1305	1259	862	921	1268	1313	1321	1237	1213.4
Nurse station																		
N-pR	529	503	550	465	433	428	532	418	525	458	432	477	439	523	501	479.6	494.8	468.2
N-pL	488	482	543	522	507	457	434	410	557	478	505	429	472	519	580	483.2	502.8	490.6
N-GL	397	335	406	383	384	369	319	324	379	354	328	335	327	388	423	363.2	369	358

Average of Corridors

Public Ward = 1140 Lux  
Min 655 lux  
Max 1392 lux

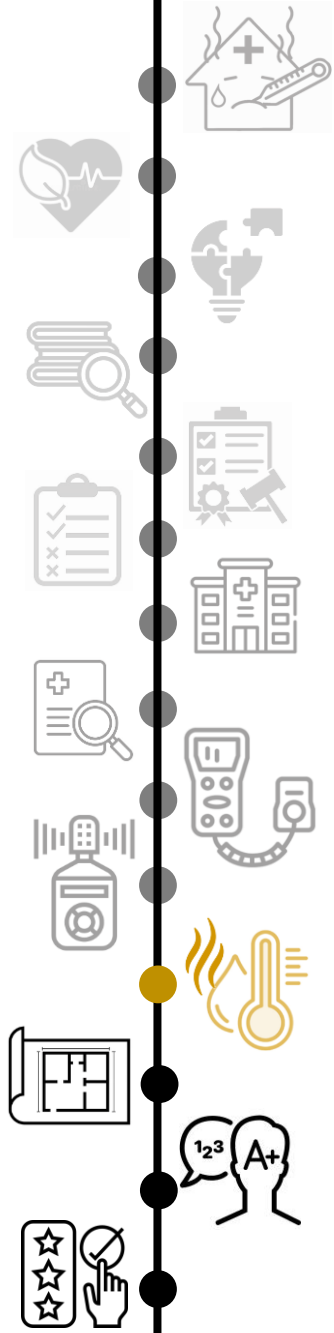
Private Ward = 1290 Lux  
Min 797 lux  
Max 1599 lux

	Day 1: Fri	Day 2: Sat	Day 3: Sun	Day 4: Mon	Day 5: Tues	Day 6: Wed	Day 7: Thurs	Day 8: Fri	Day 9: Sat	Day 10: Sun	Day 11: Mon	Day 12: Tues	Day 13: Wed	Day 14: Fri	Day 15: Sun	Day 16: Tues	Average		
	15:30	10:30	20:00	10:40	09:00	20:00	15:00	13:00	21:00	17:00	09:30	10:30	13:00	15:00	19:30	19:00	Morning	Afternoon	Night
Corridor																			
C-p1	1044	1087	1093	1094	1192	1039	1086	1102	1033	1087	1117	1114	1085	1099	1084	797	1121	1084	1009
C-p2	1200	1206	1241	1195	1107	1136	1234	1177	872	1214	1236	1188	1181	1182	1223	931	1186	1198	1081
C-p3	1519	1527	1580	1604	1569	1547	1585	1535	1382	1535	1559	1576	1599	1565	1598	1217	1567	1556	1465
C-p4	1480	1494	1452	1400	1365	1437	1298	1418	1412	1449	1367	1396	1341	1403	1443	1350	1404	1398	1419
Nurse Station																			
N-pR	855	829	815	815	718	813	801	728	710	832	824	802	817	809	820	544	798	807	740
N-pL	659	617	621	678	639	590	650	607	570	613	646	639	655	662	647	405	644	641	567
N-GL	547	368	570	530	556	545	537	545	489	550	546	547	539	560	539	448	509	546	518

Average of Nurses' Stations

Public Ward = 486 Lux  
Min 428 lux  
Max 580 lux

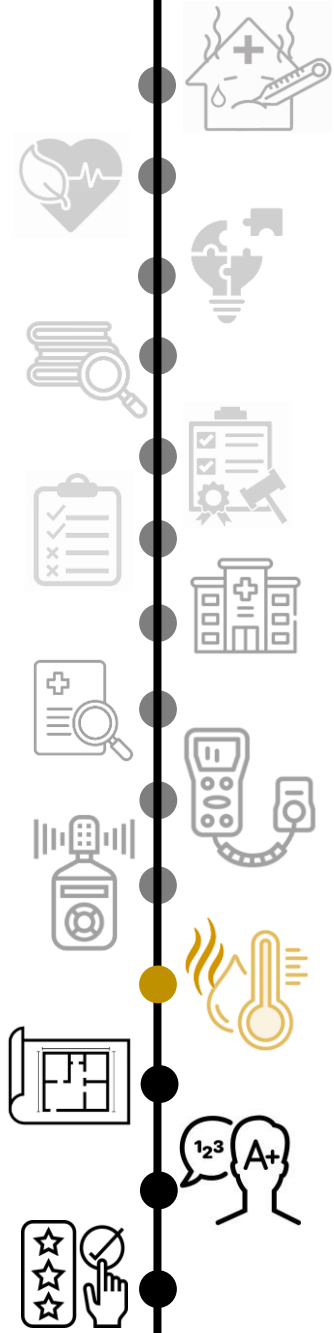
Private Ward = 699 Lux  
Min 405 lux  
Max 855 lux



## Odours

			Evaluation 1	Evaluation 2	Evaluation 3	Evaluation 4	Evaluation 5	Evaluation 6	Evaluation 7	Evaluation 8	Evaluation 9	Evaluation 10	Evaluation 11	Evaluation 12	Evaluation 13	Evaluation 14	Evaluation 15	Evaluation 16		
4D	Room 486	Identification	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No			
		Pleasantness			sanitation	sanitation	hospital	hospital			hospital	hospital	pungent	hospital	coffee	Pungent	hospital			
		Intensity			•	•	•	•			•	•	•	•	••	•	•			
	Room 470	Identification	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Pleasantness	pungent	pungent	Cleaners	pungent	hospital	hospital	hospital	pungent	hospital	hospital	hospital	perfume	hospital	hospital	hospital	hospital		
		Intensity	•	•••	••	••••	•	•	•	•	•	•	•	•	•	•	••	••		
4E	Room 433	Identification	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Pleasantness	coffee	pungent	hospital	hospital	Pungent	hospital	storage	storage	storage	storage	storage	storage	storage	storage	storage	storage	storage	perfume
		Intensity	••	•	•	•	••	Low	••	••	••	••	••	••	••	••	••	••	••	••
	Room 440	Identification	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Pleasantness	hospital	hospital	hospital	hospital	hospital	hospital	Floral	hospital	hospital	hospital	hospital	hospital	hospital	hospital	storage	hospital	hospital	
		Intensity	•	•	•	•	•	•	•	•	•	•	•	•	•	•	••	•	•	
	Room 443	Identification	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		Pleasantness	pungent	pungent		hospital	pungent		pungent	cleaners	pungent	hospital	hospital	hospital	hospital	pungent	coffee	hospital	hospital	
		Intensity	•	•		•	•		•	•	•	•	•	•	•	•••	••	•	•	

<b>Room 433</b>	Identification	Yes
	Pleasantness	coffee
	Intensity	••

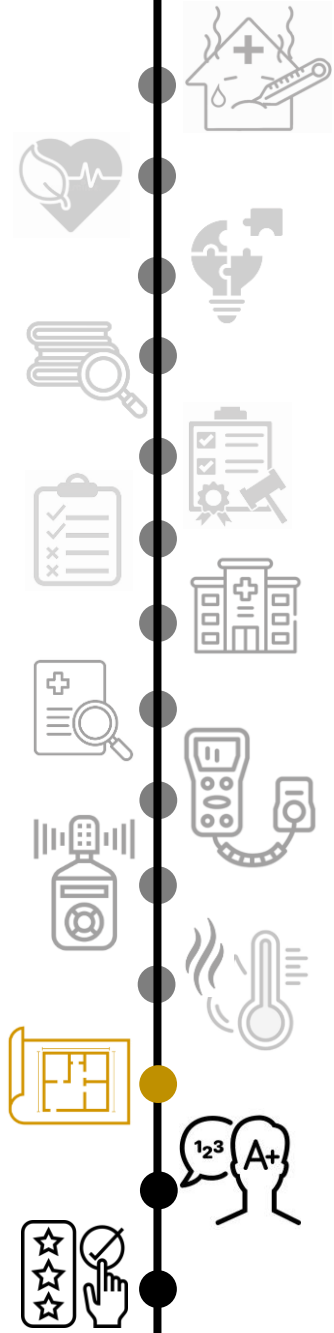


# Arch Drawings



Figure 7.10 Public room circulation

Source: Provided by the 'Maintenance Department' at KFUH, edited by the researcher



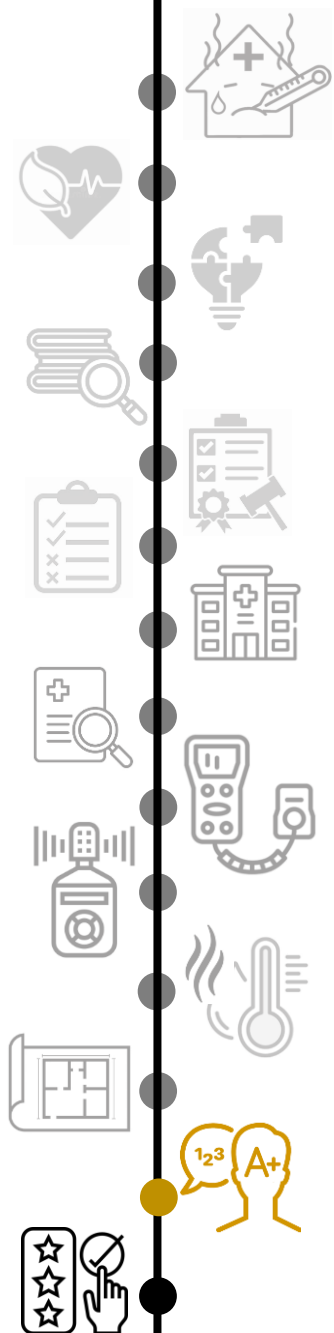
# Evaluation

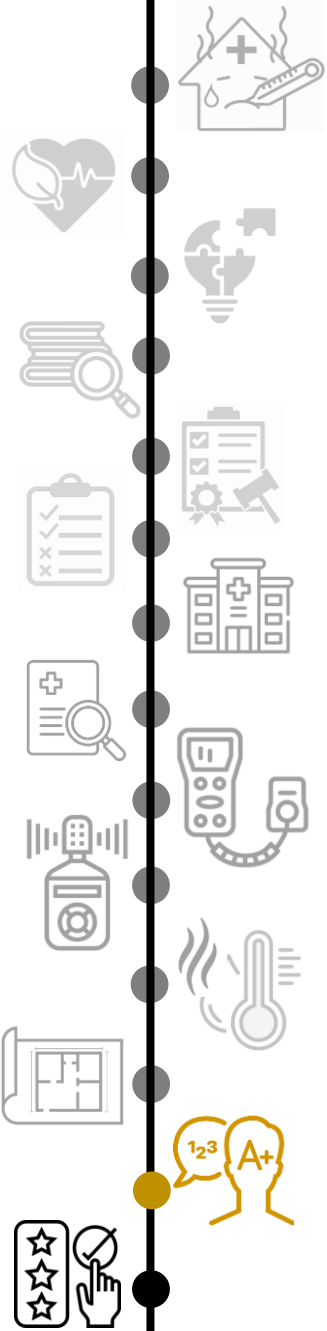
<b>General Info</b>	
Unit Number, Floor, Building	4D, Floor 4, Main Tower
What is the unit layout type?	Linear

No. & Domain	Question	Yes 1	No 2	NU 3	NA 4
1	Are there outdoor Gardens/ Healing gardens/ Roof top gardens that are accessible by patients?		2		
2	Do These spaces have Resting areas (Benches)?				4
3	Are these spaces have shades (e.g. Pergolas)?				4
4	Are these spaces are prepared to perform any activities (e.g. gardening)				4
5	Do the ward has a Gender-segregated waiting area?		2		
6	Is there a Gender-segregated waiting area outside the ward?		2		
7	Is there a common waiting area inside the ward?		2		
8	Is there a common waiting area outside the ward?	1			
9	Is there a Multi-purpose/ Day room that is used for social activities?			3	
10	Is there a Gender-segregated prayer area on the designated		2		
11	Is there a Gender-segregated prayer area on the floor immediately above or below?		2		
12	Is the Nurse station in the centre of the ward?	1			
13	Does the ward accommodate at least 50% single-occupancy rooms?		2		
14	Does the ward accommodate at least 80% single-occupancy rooms?		2		
15	According to availability, can the patient choose the room where they stay in, or change the room (bed) they are assigned to if possible?	1			
16	Do corridors have window(s) that provide(s) sunlight during the day?	1			
17	Do the windows receive indirect sunlight, rather than direct light?	1			
18	Do the windows on the Western, Northern, or Southern façade have any sort of shadings or louvers?				4
19	If there is a waiting area inside the ward (Yes to Q.7 ), does it have a defined space whether being fully enclosed or semi-				4
<b>Ward</b>	Rooms- Multi occupancy 468	Rooms- Multi occupancy 470			

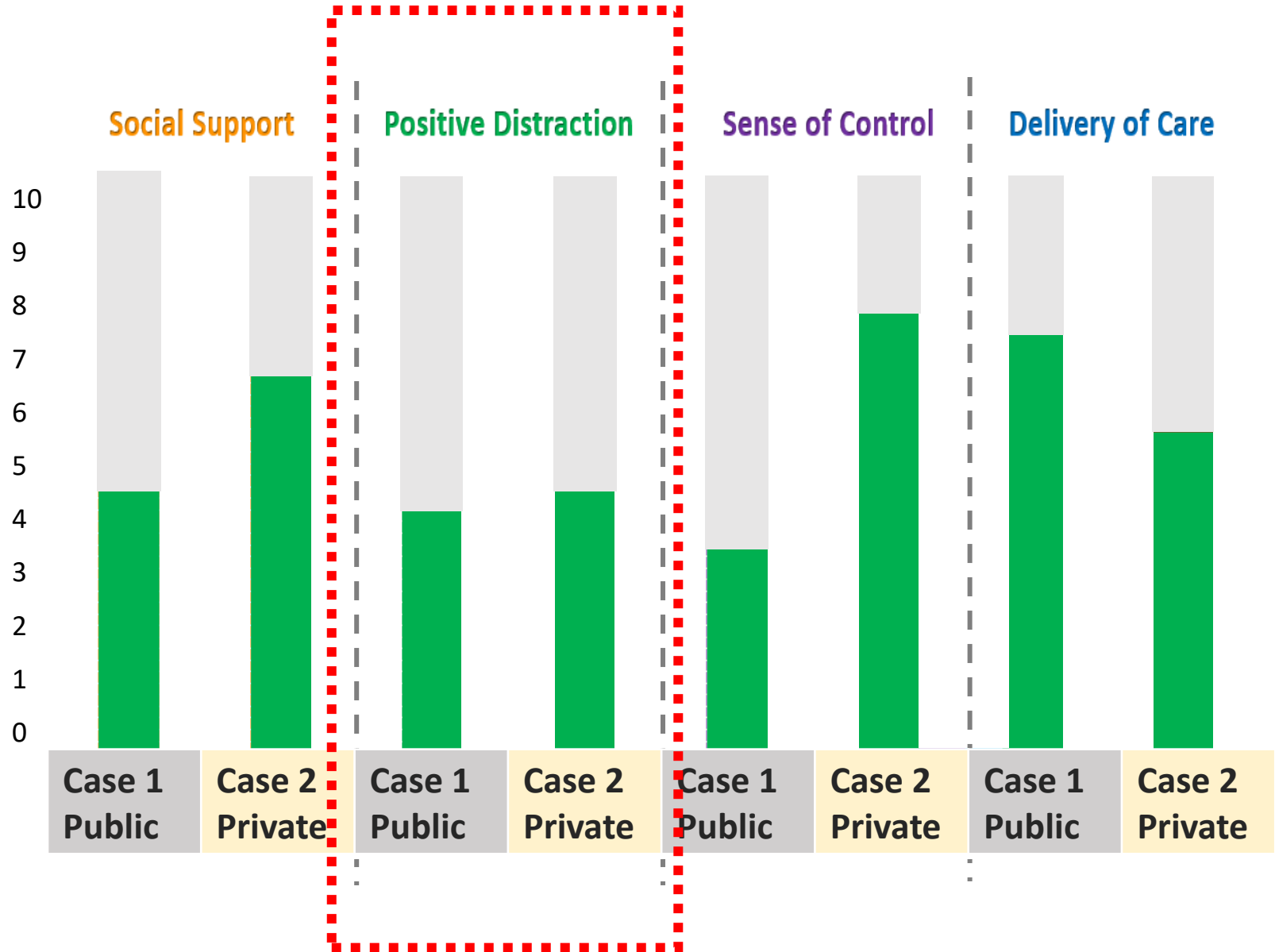
Ward 4D				
	SS	PD	SC	DC
Y	4	4	1	7
No or NU	9	7	4	4
NA	7	4	0	1

Room 468				
	SS	PD	SC	DC
Y	9	13	11	9
No or NU	6	16	15	1
NA	3	3	1	1





# Scoring



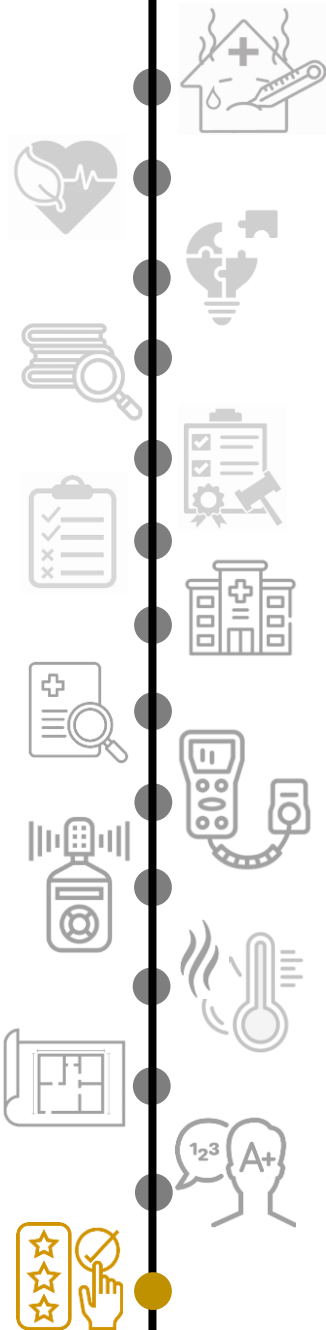


# Interpretation

		Social Support	Positive Distraction	Sense of Control	Delivery of Care
<b>Public Ward</b>	<b>4D</b>	<b>4.4</b>	4.3	<b>3.9</b>	6.7
Room 1	468	6	4.5	4.2	9
Room 2	470	5.6	4.5	4.2	8.2
<b>Private Ward</b>	<b>4E</b>	<b>6.1</b>	4	<b>6.3</b>	5.6
Room 3	433	7.1	4.4	6.7	6
Room 4	440	7.7	5	6.2	7
Room 5	443	7.9	4.8	6.2	6

## Intra-ward comparison

The impact of room type on the level of Control

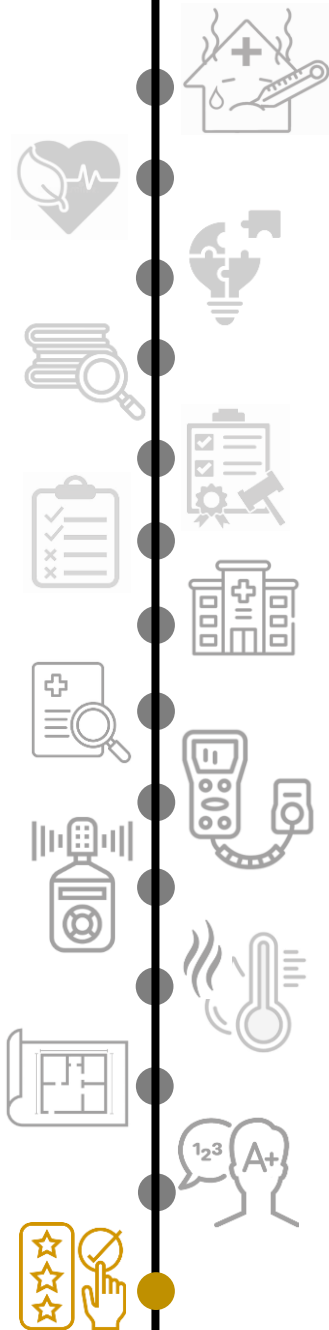


# Interpretation

		Social Support	Positive Distraction	Sense of Control	Delivery of Care
<b>Public Ward</b>	<b>4D</b>	4.4	<b>4.3</b>	3.9	6.7
Room 1	468	6	4.5	4.2	9
Room 2	470	5.6	4.5	4.2	8.2
<b>Private Ward</b>	<b>4E</b>	6.1	<b>4</b>	6.3	5.6
Room 3	433	7.1	4.4	6.7	6
Room 4	440	7.7	5	6.2	7
Room 5	443	7.9	4.8	6.2	6

## Intra-ward comparison

The presence of day light in the private ward corridor

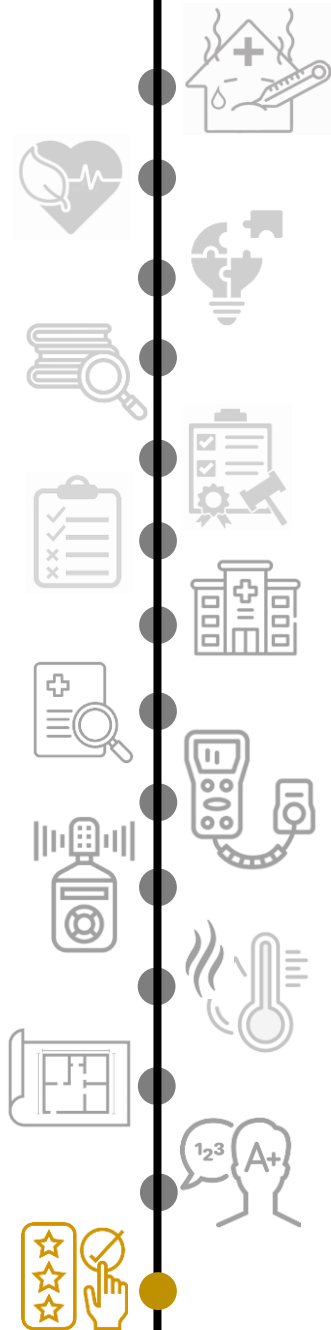


# Interpretation

		Social Support	Positive Distraction	Sense of Control	Delivery of Care
<b>Public Ward</b>	<b>4D</b>	4.4	4.3	3.9	6.7
Room 1	468	6	4.5	4.2	9
Room 2	470	5.6	4.5	4.2	8.2
<b>Private Ward</b>	<b>4E</b>	6.1	4	6.3	5.6
Room 3	433	7.1	4.4	6.7	6
Room 4	440	7.7	5	6.2	7
Room 5	443	7.9	4.8	6.2	6

## Intra-ward comparison

The proximity to the Nurse Station



# Interpretation

		Social Support	Positive Distraction	Sense of Control	Delivery of Care
Public Ward	4D	4.4	4.3	3.9	6.7
Room 1	468	6	4.5	4.2	9
Room 2	470	5.6	4.5	4.2	8.2
Private Ward	4E	6.1	4	6.3	5.6
Room 3	433	7.1	4.4	6.7	6
Room 4	440	7.7	5	6.2	7
Room 5	443	7.9	4.8	6.2	6

## Inter-ward comparison

The Presence and Absence of window(s)



رؤية VISION

2030

المملكة العربية السعودية  
KINGDOM OF SAUDI ARABIA

Thank you for  
listening