

Managing Patient Flow & Variability

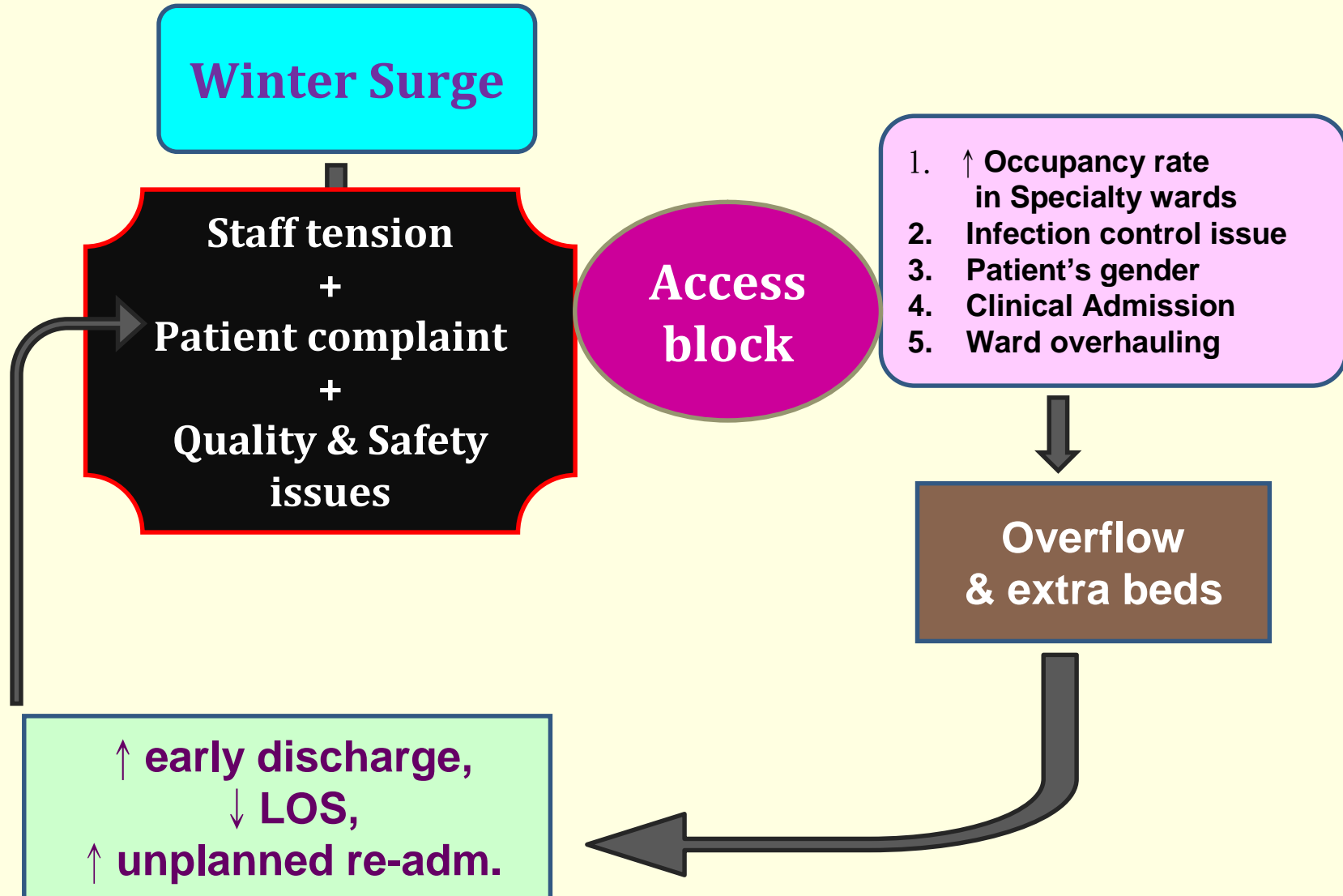
NK CHEUNG
PWH C(CS), COS A&E
PWH NTEC



新界東醫院聯網
NEW TERRITORIES
EAST CLUSTER



Emergency admission at A&E

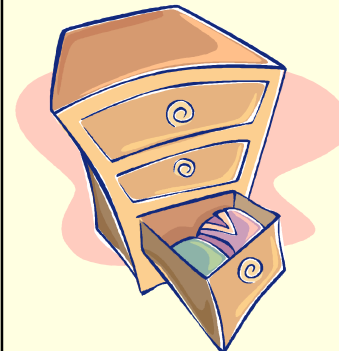


Delayed E admissions- Patients at A&E

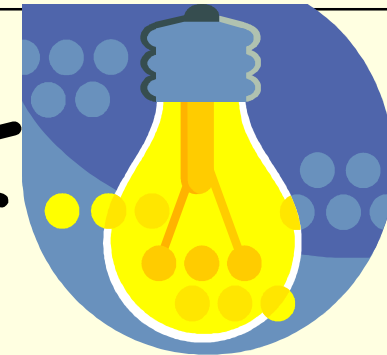
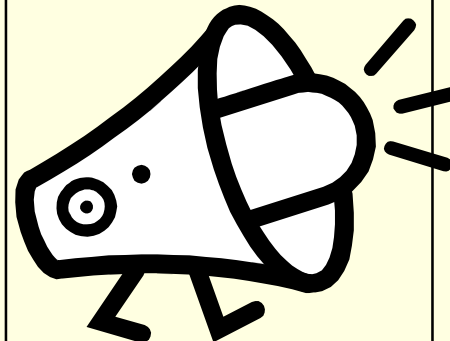
Staff



Patient



Environment



A photograph of a green plant with a pink, coiled vine-like structure. The background is a blurred green, suggesting a natural setting. The text is overlaid on the image.

**An A&E problem or a SYSTEM-WIDE issue?
Micro-processes vs Macro-structure**

**A&E/ M&T/ Surg/ O&T/ Oncology/
O&G/ Paed. patients..... vs
OUR PATIENTS!**



NEW BUILDING

NEW THINKING

BEST OPPORTUNITY

10 07:46

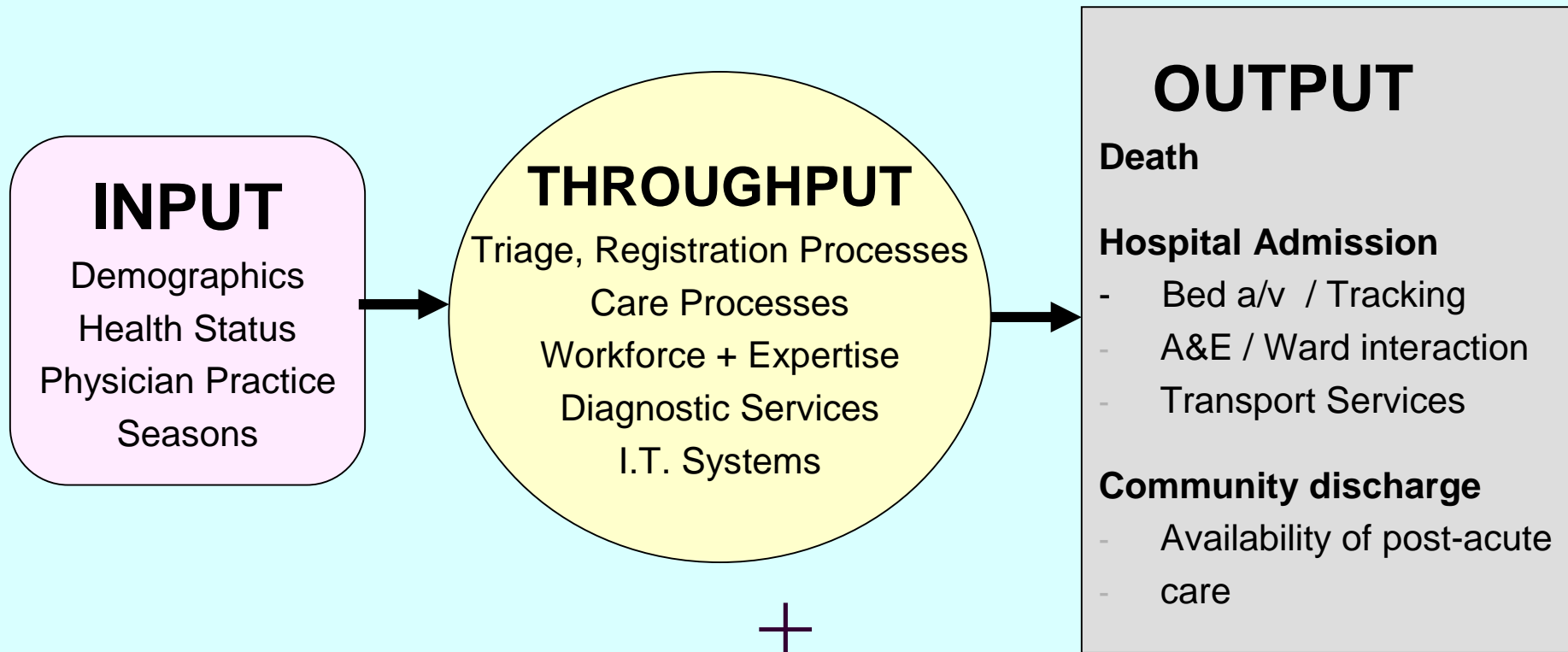
A high-speed photograph of water splashing, showing a large, turbulent splash on the left and a long, thin, curved stream of water extending towards the right. Numerous small, clear bubbles are visible throughout the water, particularly in the splash area. The background is a light, neutral color.

Patient Flow

Variability

Emergency Department

INPUT → THROUGHPUT → OUTPUT



+

VARIABILITY MANAGEMENT

In Managing Patient Flow

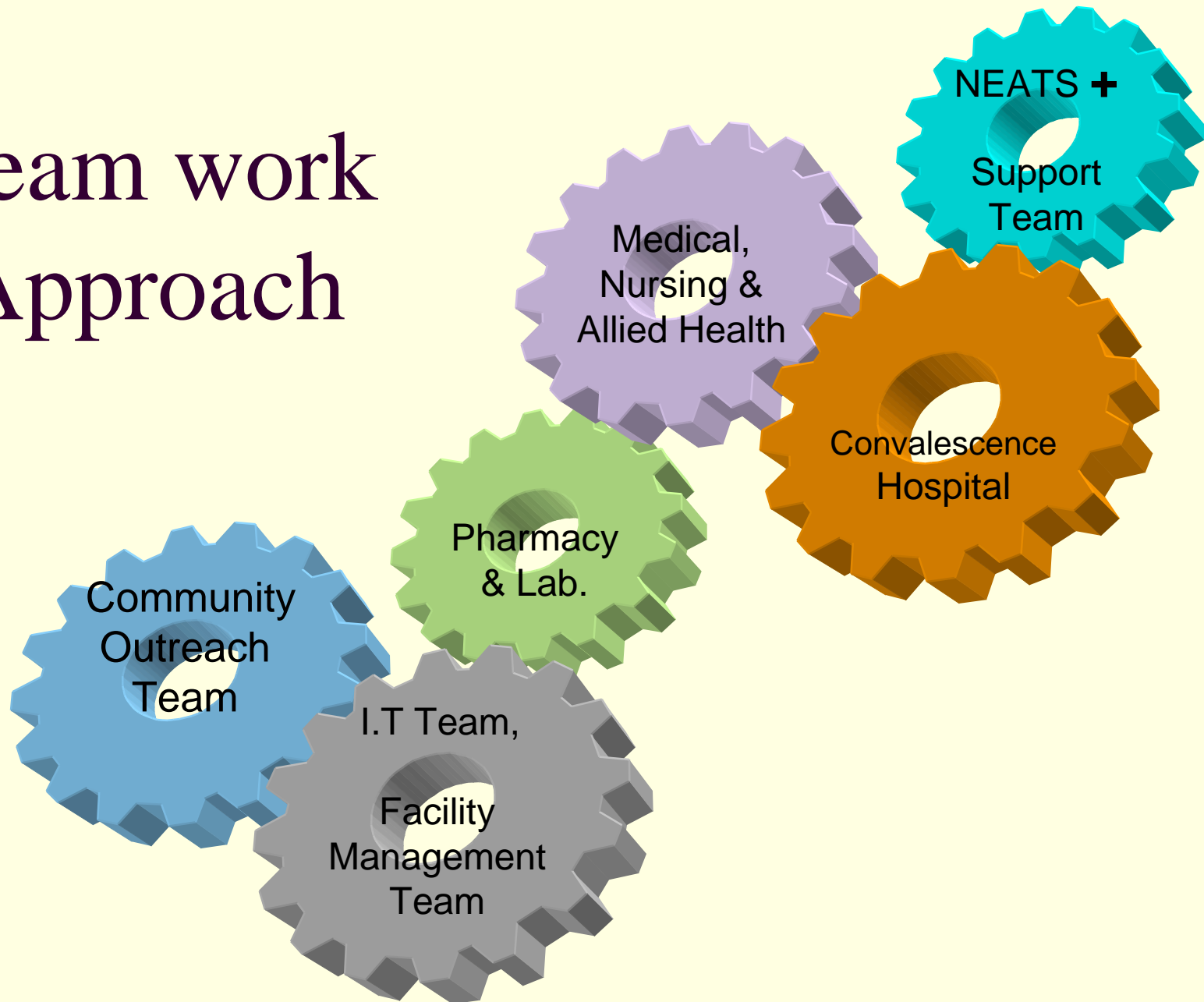
1. Strategies
2. Assessment
3. Taking control of flow management
4. Evaluation & Outcome

1. Strategies for managing patient flow



- Right structure
- Task Force Team
- Patient Flow Manager

Team work Approach



Objectives

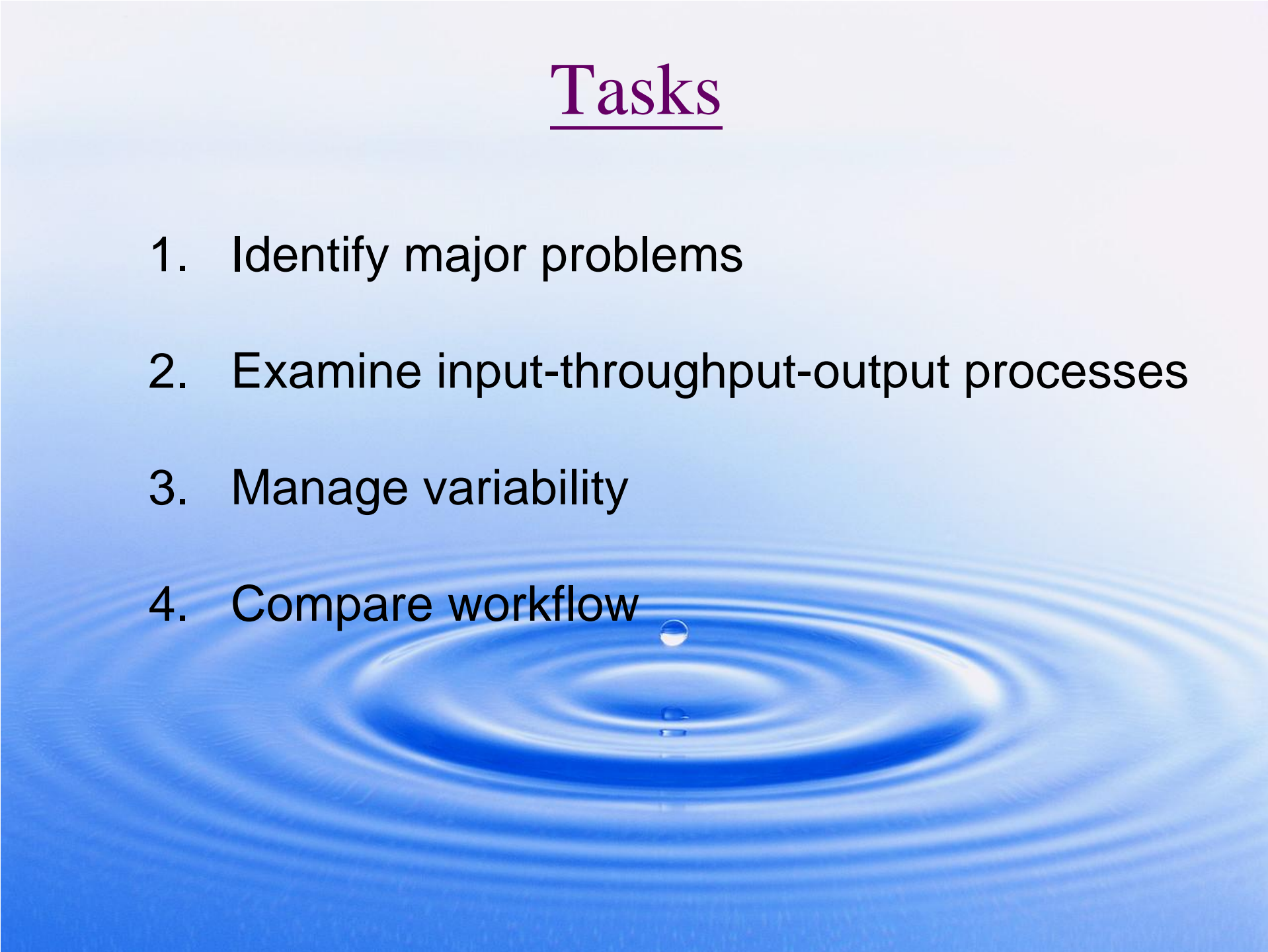
1. Minimizing waits
2. Synchronization
3. Reduce avoidable delays

Task force on Patient flow management

- Study patterns of patient flow
- Identify strategies
- Formulate a coordinated action plan



Tasks

1. Identify major problems
 2. Examine input-throughput-output processes
 3. Manage variability
 4. Compare workflow
- 
- The background of the slide is a gradient of light blue at the top, transitioning to a darker blue at the bottom. In the lower half, there is a central image of a single water droplet falling into a pool of water, creating concentric ripples that spread outwards. The droplet is captured mid-fall, just above the surface, with a small reflection below it.

Tasks

5. Assists individual department
6. Improve inter-departmental communication
7. Re-design E-admission methodology
8. New operation system at A&E
9. Review & enforcement of policies

2. Assessment - Census Peaks & Valleys

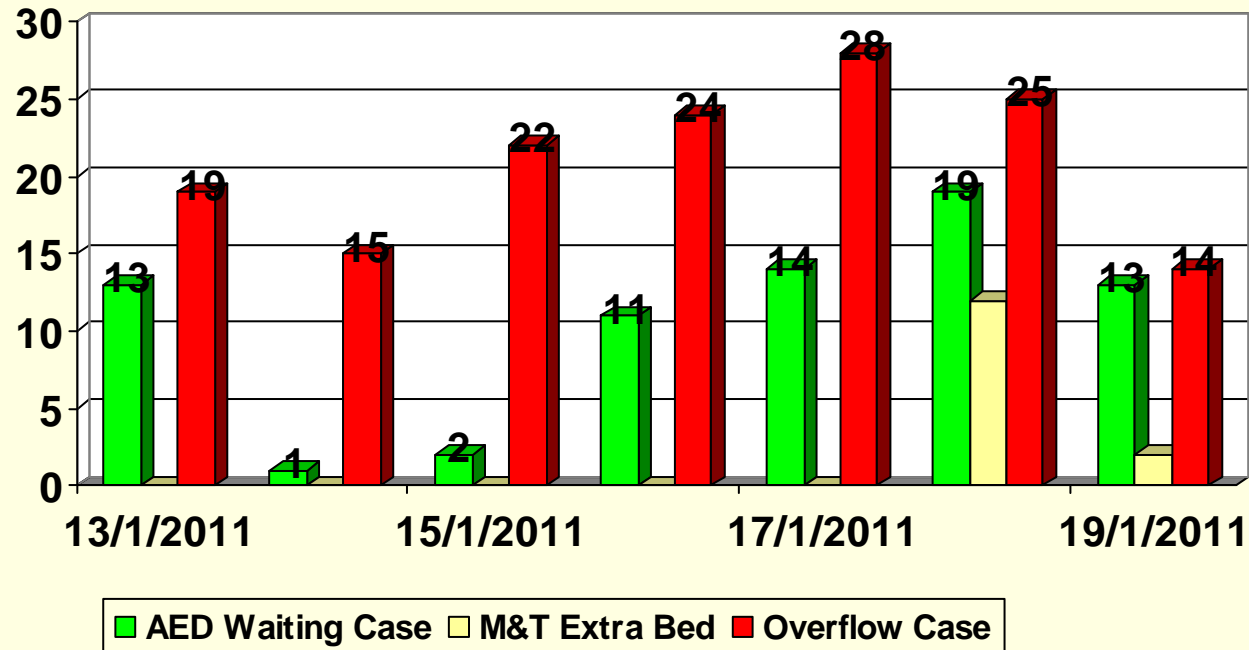
- Identify peaks & valleys
- Smooth out demand
- Manage resources to match peaks & valleys

A background image showing a dynamic splash of water with several droplets in mid-air and a larger splash at the bottom, all set against a light blue gradient background.

Assessment Methodology

- Use of I.T.
- Internal Audit
- Identify process defects

iAccess -- NTEC



**Bed situation Summary at 9am
from 13/1/2011 to 19/1/2011**

PWH



2008/09 Emerg. Adm (1/12/08-31/5/09)

826	854	925	922	876	874	882	868	902	921	858	813	789	774	890	921	853	851	903	850	857	799	816	835	835	842
week after Christmas holidays 876				week after CNY holidays 926				week after Easter holidays 859																	
29/12/08 - 4/1/09				29/1/09 - 4/2/09				14/4/09 - 20/4/09																	



2009/10 Emerg. Adm (30/11/09-30/5/10)

873	854	842	860	843	814	843	896	844	831	765	884	893	823	842	865	875	836	798	809	781	784	767	761	796	793
week after Christmas holidays 843				week after CNY holidays 923				week after Easter holidays 784																	
28/12/09 - 3/1/10				17/2/10 - 23/2/10				7/4/10 - 13/4/10																	



2010/11 Emerg. Adm (29/11/10-15/5/11)

832	843	880	865	854	840	851	868	904	928	964	848	924	884	832	827	801	856	881	868	859	890	846	886				
week after Christmas holidays 859				week after CNY holidays 964				week after Easter holidays 885				week after Labour holidays 846															
28/12/10 - 3/1/11				7/2/11 - 13/2/11				26/4/11 - 02/5/11				02/5/11 - 08/5/11															

Remarks: For (positive) day/week is counted from the first working day after holidays (Christmas, CNY and Easter) to the highest attendances day of peak week of the month (or the peak week of the month after holidays). For (negative) day/week is counted from the last working day before holidays to the highest attendances day of peak week of the month.

PWH Observations

Weekly Emergency Admission after Long Public Holiday (Yr. 2008-2011)

Long Holiday	Before	After
Christmas	Peak within 4-24 days	No obvious peak
CNY	No obvious peak	Peaks within 2-9 days
Easter	<u>08/09 & 09/10:</u> Peak @ 3 rd -4 th week of March <u>10/11:</u> Not significant	With 3-11 days, but increase not significant

A glass bottle is shown pouring water into a pool of water. The water is captured in mid-air, creating a dynamic splash. The background is a soft, out-of-focus blue and white gradient, suggesting a bright, airy environment. The overall aesthetic is clean and professional.

3. Taking control of patient flow management

- Establish Control Knobs
- Variability Management

Patient Flow Management & Periodic Review

- Variability management
- Synchronization of E admission
- Push and pull mechanisms
- Improved throughput processes
- Enhancement of discharge/ transfer processes
- Dynamic management of elective admissions & bed capacity

Performance Indicators

- LOSs
- Bed occupancy & patient move data
- Statistics on extra/ overflow beds
- Outflow to convalescent hospitals

2011/6/10



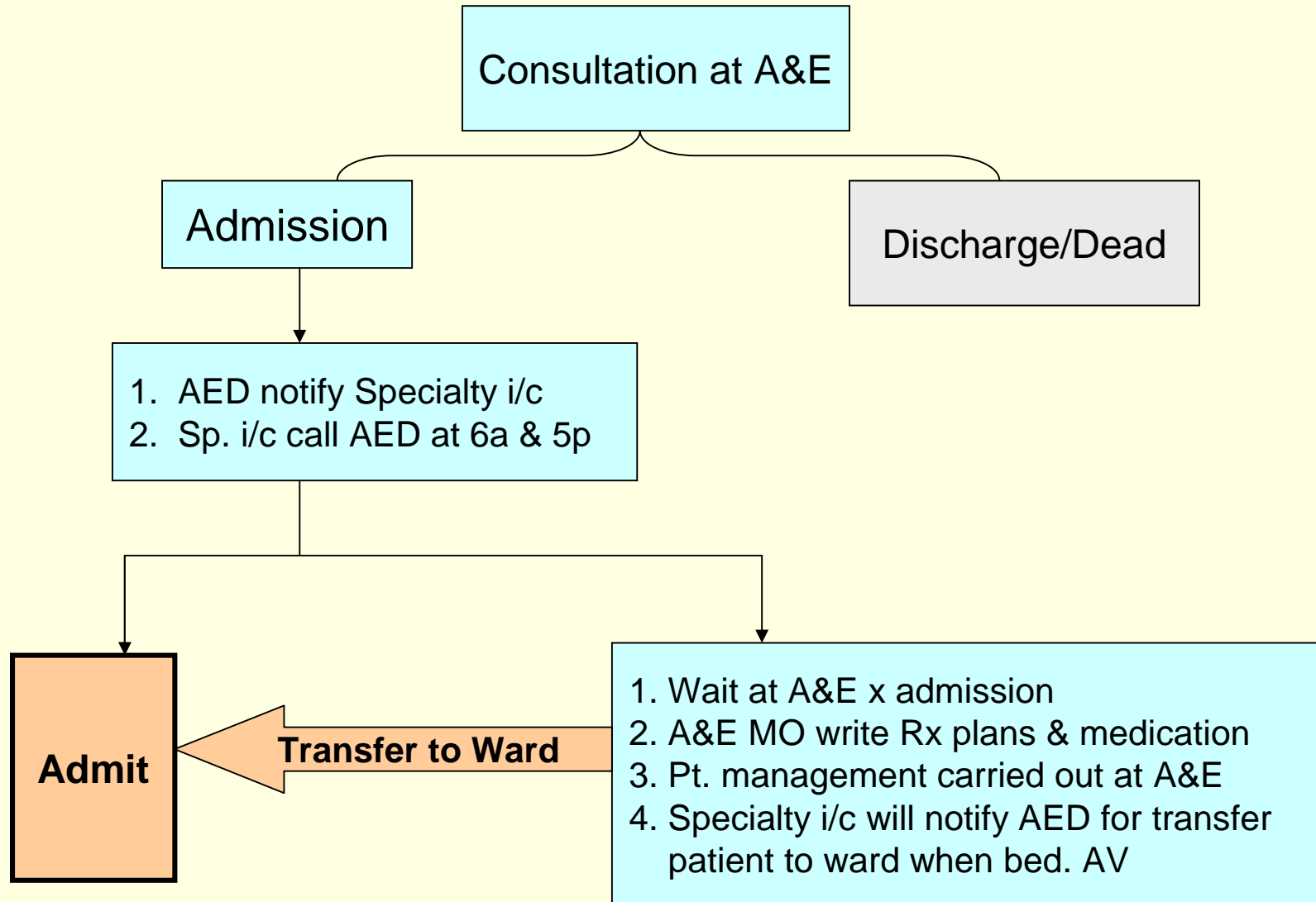
Performance Indicators

- Bed alert calls
- Readmissions
- Incidents/ patient safety
- Avoidable admissions

2011/6/10



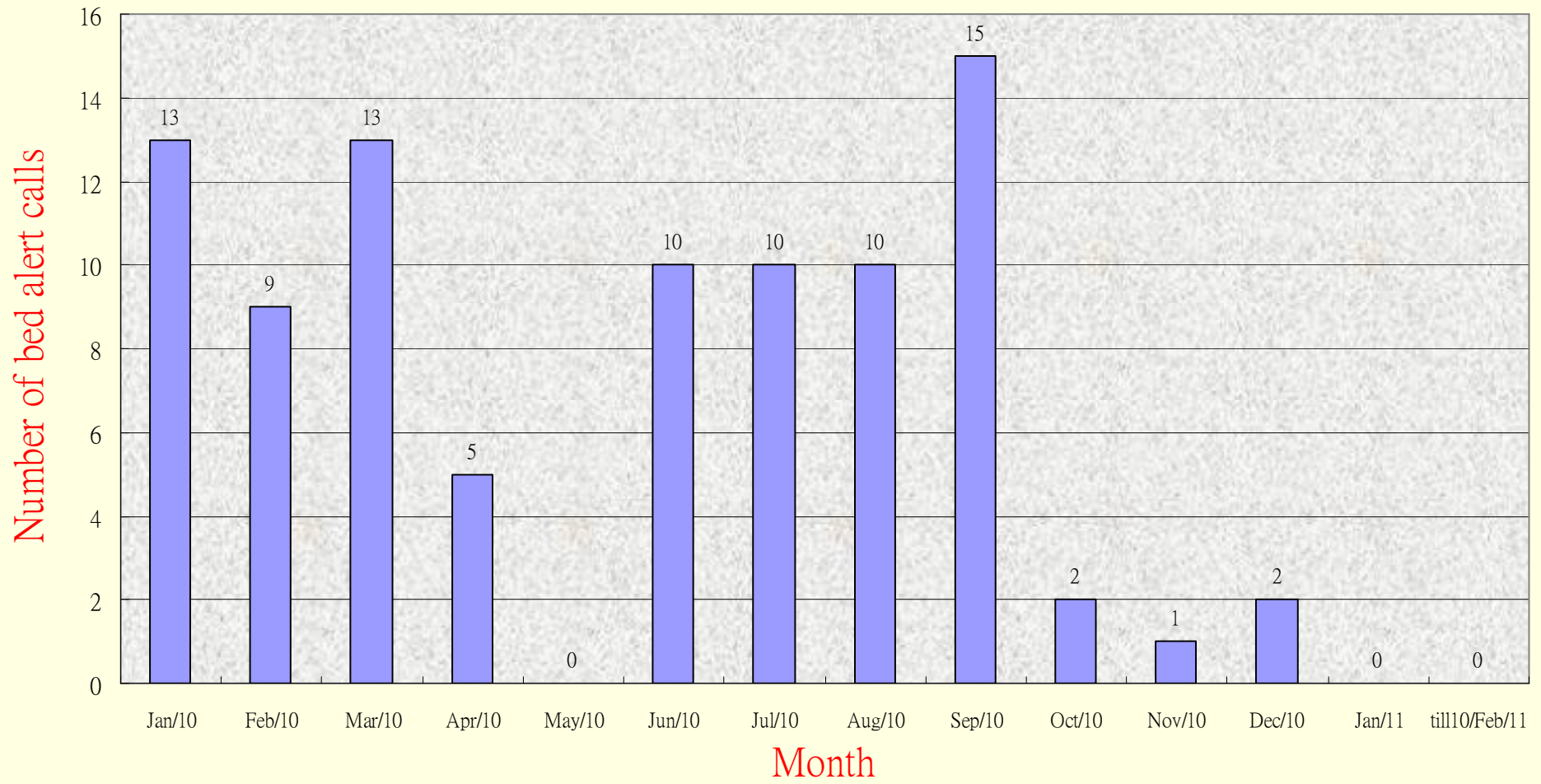
New Workflow for E admission at AED PWH



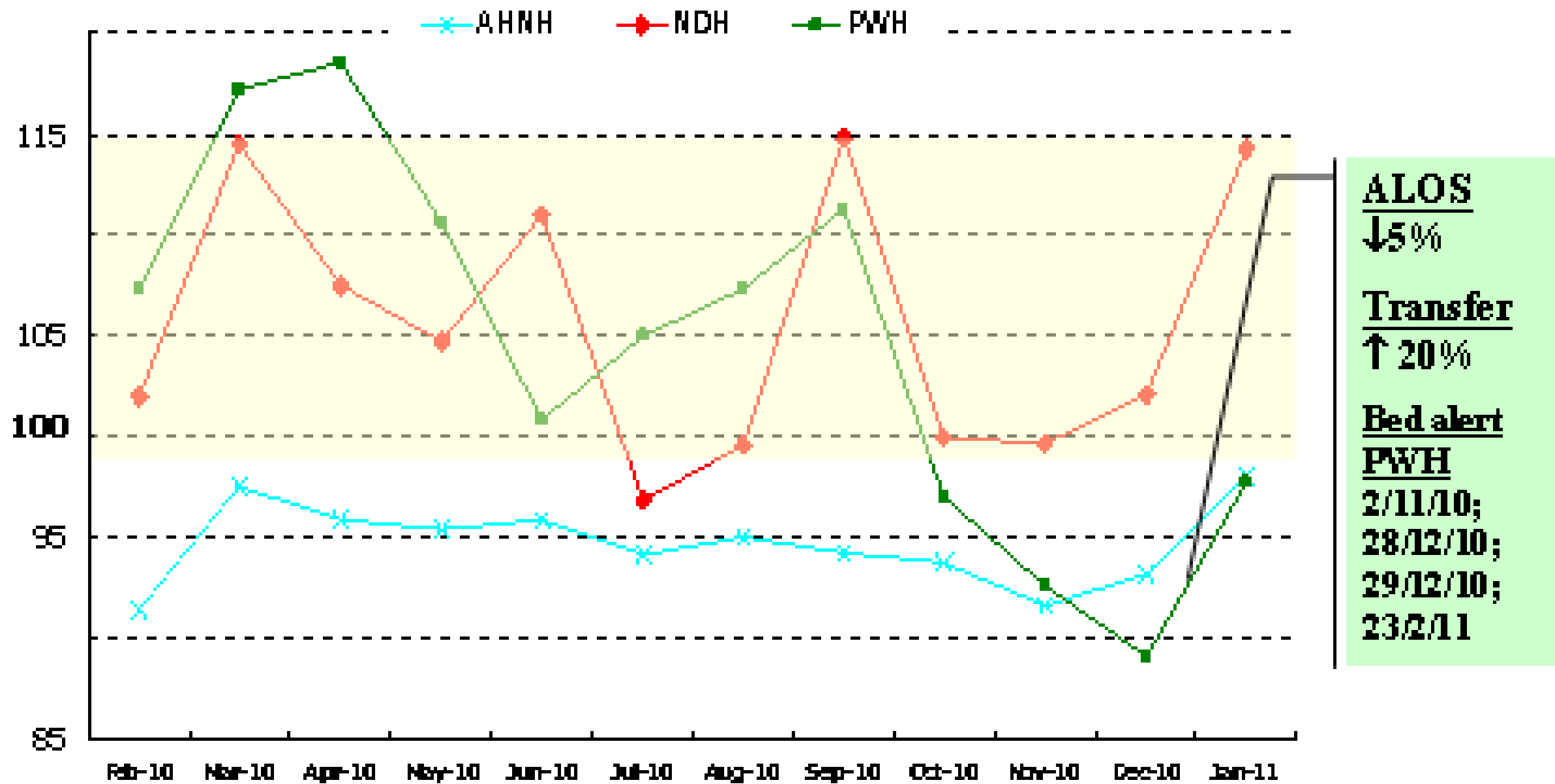
Outcome

Cancellation of ODAS	Internal diversion minimized
Time spent for patient discharge (NEATS/Drug/ transfer)	Reduced
Bed alert Call	Much reduced
A&E Environment	Less crowded
Workload due to access block	Reduced
Ward capacity for admission	Increased
Staff satisfaction	Improved
Nurse to patient ratio at A&E	Improved

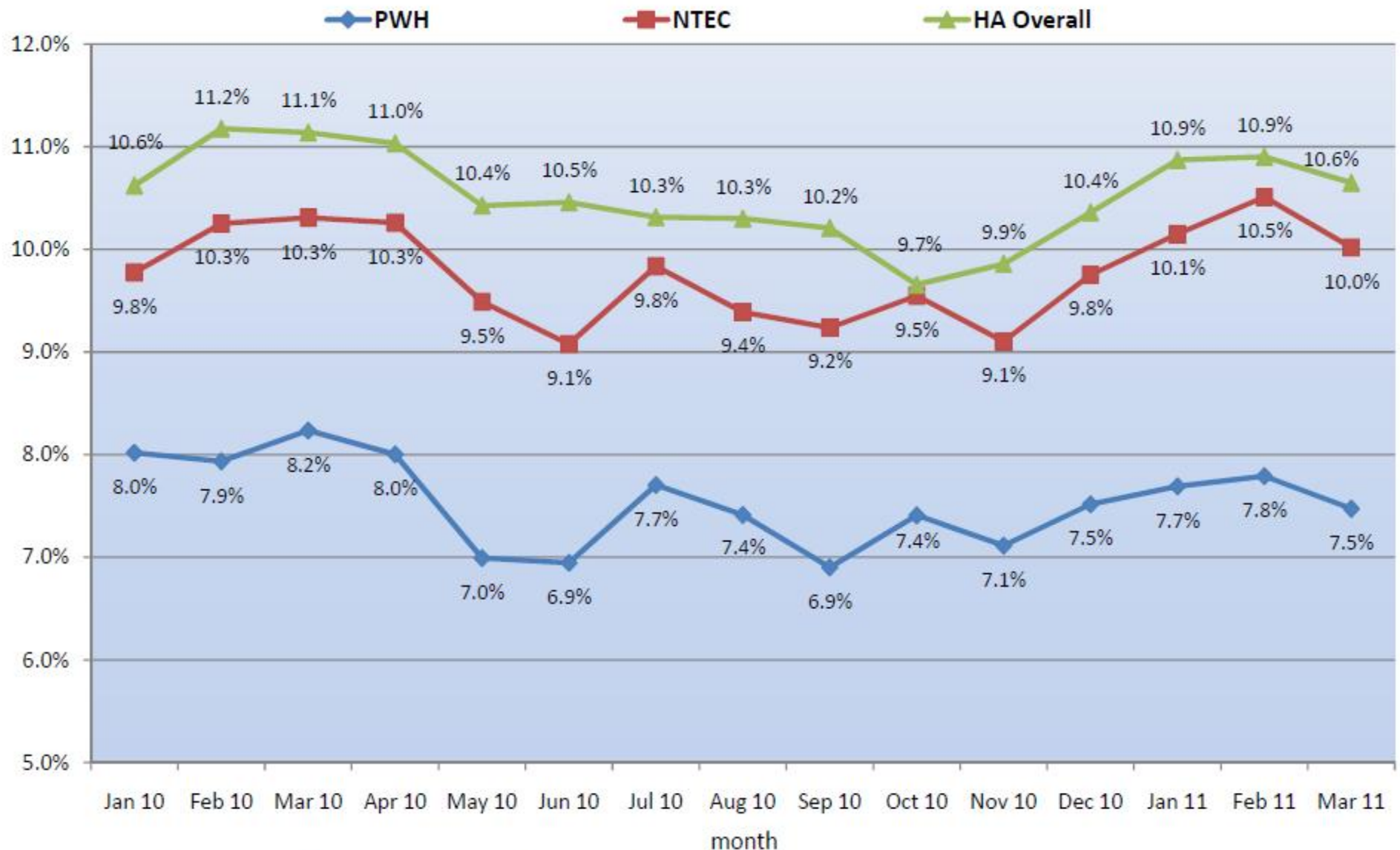
Bed alert call



NTEC-Medical bed occupancy



Specialty-based unplanned readmission rate (%) of linked Inpatient episodes - General specialties only 01/2010 - 03/2011



Remarks: General specialties = All specialties excluded Psychiatry, Mentally handicapped and Infirmary



Pending for admission



Observation Area
(stretcher case)



Observation Area
(wheelchair case)



Observation Area
(fever case)



Conclusion

1. Common Goal
2. Changes
3. Concerted effort
4. Communication
5. **TEAM**



A&E



Med. & Therapeutic



Pharmacy



O&T



Task Force Team



SUR



ENT/Eye/Den./H&N



Shatin Hosp.



Oncology



NEATS



FMU & supporting



Paed.



O&G



HIRD



NTEC

Thank You