ACT Government
Health

REF: FOI16/8

[redacted]

Dear [redacted]

I refer to your application under the ACT *Freedom of Information Act 1989* (the Act), received by ACT Health on 3 February 2016, in which you requested access to documents *"..relating to any review, report, consultancy or similar document prepared by Ms Kate Brockman, Healthcare Reform Consulting..."*

As Deputy Director-General, Canberra Hospital and Health Services, I am an officer authorised to make a decision in respect of a request for information, under section 22 of the Act.

After conducting a search of all relevant records, ACT Health has identified 108 pages of documents in its possession that meet the scope of your request. I have decided that some are to be partially released and some exempt in accordance with provisions under the Act, as outlined in the Schedule of Documents.

My decision is appealable under the Act. This means that if you are dissatisfied with this outcome you have a right to seek a review under section 59 of the Act. If you wish to seek a review you should write to:

The Principal Officer
c/- FOI Coordinator
Executive Coordination
Health Directorate
GPO Box 825
CANBERRA ACT 2601

You have 28 days from the date of this letter to seek a review of the outcome or such other period as the Principal Officer permits.

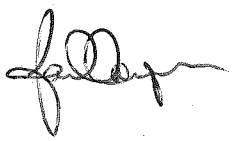
Under section 54 of the Act, if you are concerned about the processing of your request or related administrative matters, you may complain to the Ombudsman, who may conduct an independent investigation into your complaint. There is no fee for this, and the contact details are as follows:

The Ombudsman
GPO Box 442
CANBERRA ACT 2601

ACT Health does charge for the release of information under Freedom of Information. However on this occasion we have decided not to charge.

If you have any queries concerning this Directorate's processing of your request, or would like further information, please contact Mr Jonas Allen, Freedom of Information Coordinator, on 6205 1340 or via email at: HealthFOI@act.gov.au

Yours sincerely



Ian Thompson
Deputy Director-General
Canberra Hospital and Health Services

5 May 2016

**SCHEDULE OF DOCUMENTS**

**FOI16/08 Reports prepared by Ms Kate Brockman**

| FOLIO | ITEM | DATE | STATUS | REASON FOR EXEMPTION | Internet publication – YES/NO – if no, why not |
|---|---|---|---|---|---|
| 1 | Diagnostic report for Canberra Hospital and Health Services | Not dated | Partial release | Section 35 1 (c) – The recommendations report was submitted to the Executive for its consideration. This document contains a disclaimer that the two reports must be read in conjunction with each other.<br><br>S43 1 business affairs of Healthcare Reform Consulting. | Y |
| 2 | Recommendations Report – The Canberra Hospital | Not dated | Exempt | Section 35 1 (a) – The document was attached to a submission to Cabinet for consideration on 16 November 2015.<br><br>S43 1 business affairs of Healthcare Reform Consulting. | N |
| 3 | Briefing note for Canberra Hospital Executives | Not dated – received | Partial release | S43 1 business affairs of Healthcare Reform Consulting. | Y |
| 4 | HRC Weekly Report for the period 19/12/15 – 22/1/16 | Received 21 Feb 16 | Exempt | Section 36. personal opinion and deliberations | N |
| 5 | HRC Proposal P04 High level diagnostic for The Canberra Hospital | July 2015 | Partial release | S43 1 (b) (c) business affairs of Healthcare Reform Consulting. | Y |
| 6 | WAISH brief for bed reviewers | Not dated | Exempt | S43 1(a) – study process owned by HRC. | N |

| | | | | | |
|---|---|---|---|---|---|
| 7 | HRC Proposal C10-P01 Transformational Reform Program Tranche Two | 16/11/15 | Exempt | S43 (b) commercial –in-confidence | N |
| 8 | Recommendations report extract for The Canberra Hospital | Not dated | Exempt | Section 35 1 (c) – The recommendations contained within the report were submitted to the Executive for its consideration.<br><br>Section 36. personal opinion and deliberations – the document is a draft and was not finalised. | N |
| 9 | HRC Weekly Report 25/1/16 – 29/2/16 | Rec'd 21/2 | Exempt | Section 36. personal opinion and deliberations | N |



# Diagnostic Report for
# Canberra Hospital and Health Services

**Note: this report should be read in conjunction with HRC's Recommendations Report for Canberra Hospital and Health Services**

Kate Brockman, Director
Mark Walmsley, Senior Manager
Ben Uprichard, Senior Manager

**Table of Contents**

# 1. Introduction and background

## 1.1. Introduction and report outline

This report was commissioned to baseline the high level 'Whole of Hospital' performance of the Canberra Hospital (CH) as the centre-piece of the Canberra Hospital and Health Service (CHHS). The methodology used was based on the successful diagnostic approaches used in the WA and NSW reform programs from 2008 to 2013. The baseline activity looked into five areas as follows:

- High level data on emergency department presentation and discharge profiles, and length of stay.
- High level data on ward admissions and discharge profiles, and length of stay.
- Three day time and motion study for the emergency department.
- Five day, twice daily bed/ward occupancy review.
- Generic hospital and overarching structures review.

This report should be read in conjunction with the accompanying report *HRC's Recommendations Report for Canberra Hospital and Health Service.* The purpose of each report is as follows:

- **Diagnostic Report for CHHS.** To outline the analysis completed for the Canberra Hospital and summarise the findings.
- **Recommendations Report for CHHS.** To outline the recommendations for the Canberra Hospital based on the findings of the diagnostic investigation undertaken.

## 1.2. Background

The CH has undertaken significant focus on project and redesign work since 2011 beginning with the "Care Around the Clock" analysis report. Whilst this project work has delivered some change it has been siloed and driven by a collective few. This is most notable with the Project Venturi work which has delivered significant improvements in medicine around flow and also in improved discharge practices. A different approach will be required to support the outcomes required for hospital wide performance improvement that can build on the positive outcomes thus far achieved.

The authors recommend a whole of hospital approach to improving patient flow that looks at the ED, inpatient interface, back of hospital and the overarching structures that support patient flow in and out of the hospital.

## 1.3. Overview of Whole of Hospital Approach

Reforming a hospital with a view to decreasing ED and hospital overcrowding requires a whole of hospital approach to identify bottlenecks and selection of the focus areas and projects that will bring biggest success. An overcrowded ED is the result of both inefficient processes within the ED and the rest of the hospital.

A whole of hospital approach incorporates looking at the time and process delays across the entire patient journey from presentation at triage to departure from the wards. These delays are a result of people, process, governance, models of care and often patient factors. Achieving transformational change and maintaining a high performing organisation requires strong executive focus and sponsorship, medical engagement, detailed understanding of the root cause problems and widespread communication. This is most successfully supported by a focus on implementation and data measurement.

# 2. Details of diagnostic activities

## 2.1. Engagement scope

The scope for this diagnostic activity is shown below:

- Areas to review:
    - Emergency department
    - Patient flow management and ED interface
    - Ward length of stay management
- Methods of review:
    - Process (manual collection)
    - Activity levels

Out of scope for these diagnostic activities are:

- Areas to review:
    - Out-patients, elective surgery, theatres, and imaging
    - Allied health services, and ACT ambulance service
    - Staffing levels across the hospital
- Method of review:
    - Budget and facilities review
    - Voice of patient and voice of staff

## 2.3. Report nomenclature

This report should be read with the following considerations in mind:

- All time data is shown in the format hh:mm unless the time in discussion is less than 60 mins, in which case it is shown as mm mins. So 2:33 equates to 2 hours 33 minutes, rather than 2 mins, 33 seconds; and 55 minutes is shown as 55 mins.

- Data sources for each study or data review are listed at the beginning of the applicable section.

## 2.4. Final site visits and schedule

HRC visits to sites in support of the studies are detailed below.

- 22-24 July 2015. Kate Brockman, Ben Uprichard.
- 28 July – 1 August 2015. Kate Brockman, Mark Walmsley.
- 11-14 August 2015. Kate Brockman.
- 6-13 September 2015. Kate Brockman, Mark Walmsley, Ben Uprichard.

## 2.5. Studies and analysis conducted

### *2.5.1. High level business of the hospital – emergency department*

We undertook a high level business of hospital (BOH) review into ward activity including:

- ED volume, length of stay and NEAT summary.
- ED presentation profile.
- Admit and discharge stream profile.
- Relationship between ED LOS and NEAT performance.
- ED length of stay overall and by specialty.
- ED long length of stay.
- ED admit performance by specialty and stage.

### *2.5.2. High level business of the hospital – wards*

We undertook a high level business of hospital (BOH) review into ward activity including:

- Patient summary by admitting specialty.
- Long length of stay summary and review by specialty.
- Ward admission profile.
- Ward discharge profile.
- Net separations and separations before 10am.

### *2.5.6. High level business of the hospital – stakeholder interviews*

We undertook stakeholder interviews with over 25 staff from all disciplines and divisions including Imaging, Surgery, Medicine, Critical Care, Mental Health, Drug and Alcohol, Access Unit, Executive team, and the Business Intelligence Unit.

# 3. Business of the hospital – emergency department

## 3.1. Study details

A high level review of hospital data was conducted using information provided covering 73,950 ED presentations from 1/9/14 to 31/8/15. The review sought to summarise key ED activity profiles and performance metrics.

## 3.2. ED volume, length of stay and NEAT summary

The following table summarises overall volume and volume by triage category with the corresponding NEAT performance.

| Triage | Volume | Volume % | NEAT % |
|---|---|---|---|
| Triage cat 1 | 375 | 0.5% | 61.6% |
| Triage cat 2 | 8,303 | 11.2% | 48.3% |
| Triage cat 3 | 24,648 | 33.3% | 42.4% |
| Triage cat 4 | 30,890 | 41.8% | 61.1% |
| Triage cat 5 | 9,734 | 13.2% | 82.2% |
| **Total** | **73,950** | **100.0%** | **56.2%** |
| Admit stream | 24,652 | 33.3% | 32.6% |
| Discharge stream | 49,298 | 66.7% | 68.03% |

Key findings – analysis

- The data indicated that the admit stream represents one third of ED presentations and has a NEAT performance of 32.6%.
- The data indicated that the discharge stream represents two thirds of ED presentations and has a NEAT performance of 68.03%.

Key findings – observations

- CH NEAT of 56.2% compares with the 2013Q4 national average for major metropolitan hospitals of 66%[1].
- The top 5 major metropolitan hospitals in 2013Q4 averaged approximately 84% (Mater Adult QLD, Ipswich QLD, Dandenong VIC, The Alfred VIC, and The Tweed NSW).

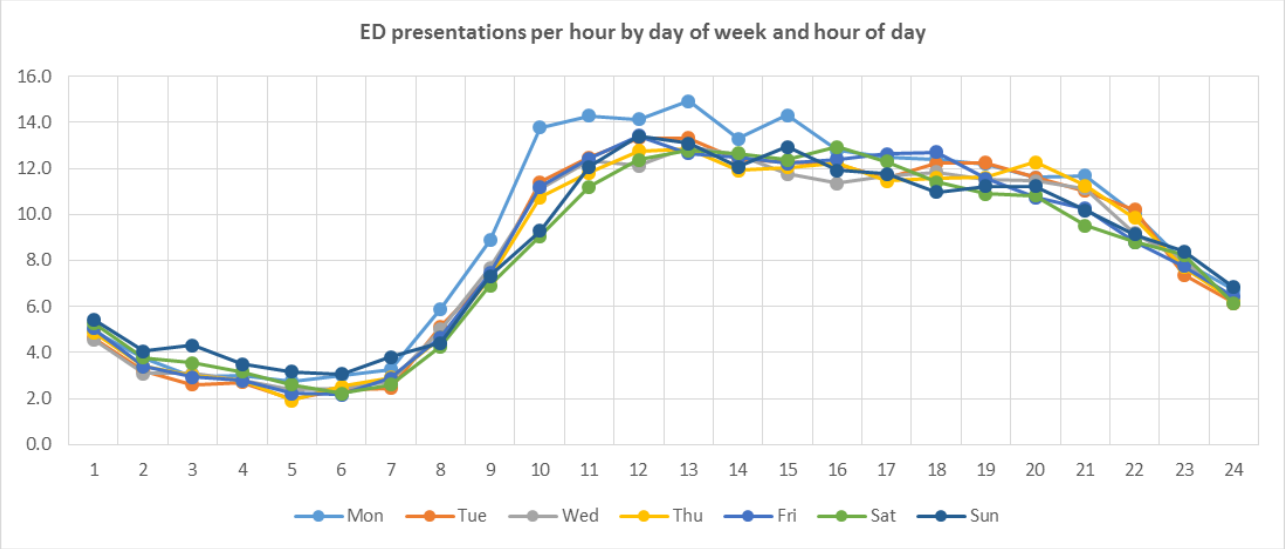
Conclusions

- There is opportunity to improve both admit and discharge NEAT streams to further improve overall NEAT.

[1] http://www.myhospitals.gov.au/docs/default-source/our-report-pdfs/HP-U_TimeInEmergencyDepartments_2012-13_RPT.pdf

## 3.3. ED presentation profile

The ED presentation profile was investigated by day of week (Monday to Sunday) and hour of day (0 to 23) to ascertain key volumes and trends.




Key findings – analysis

- The data indicated a predictable pattern for ED presentations per hour across the week ranging from a low of 2.0 patients per hour on average at 5am, to a high of approximately 15 per hour at 1300 hours.
- The data indicated a high presentation rate plateau of more than 10 patients per hour (1 per 6 mins) from 10am to approximately 9pm.
- The data indicated a low presentation rate trough of less than 4 patients per hour (1 per 15 mins) from 2am to approximately 7:30am.

Key findings – observations

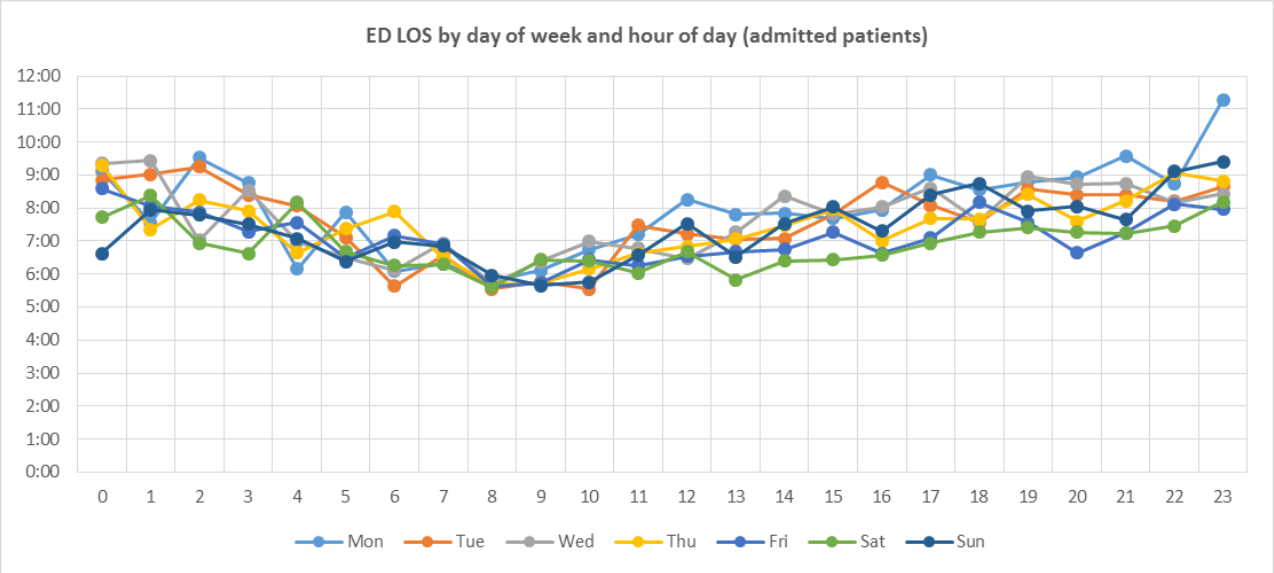
- The above ED presentations profile is similar by day of week and hour of day to numerous hospitals across Australia.
- The expected presentation profile can be analysed with other metrics such as admitted percentage and patient DRG, to determine the estimated demand across impacted areas of the hospital.

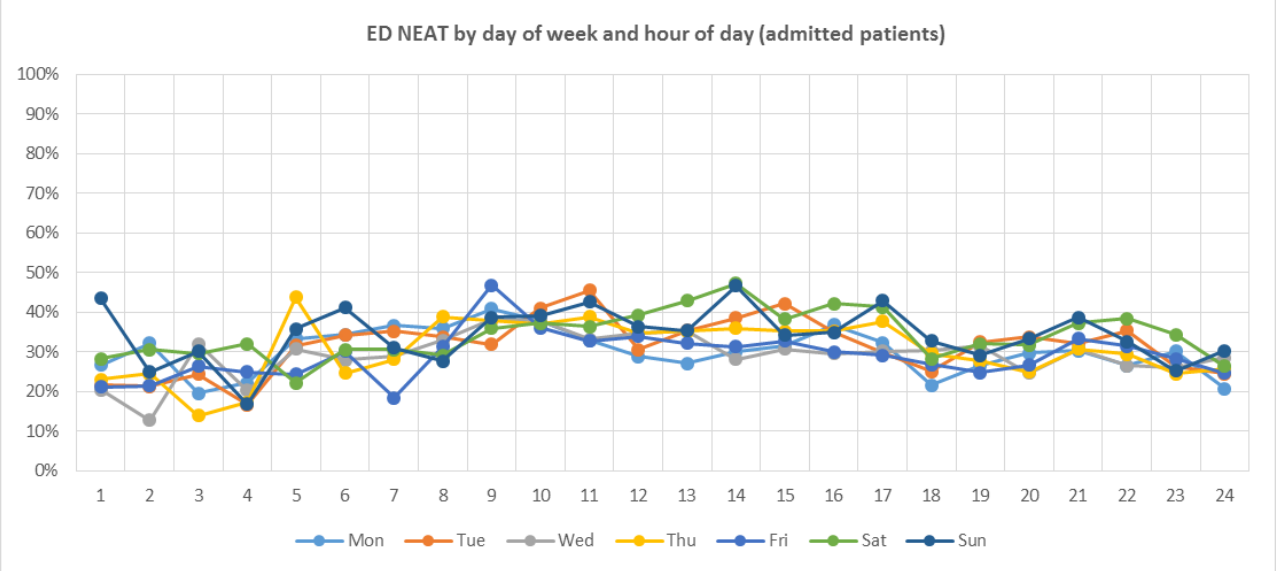
Conclusions

- The predictable presentation patterns of patients to the ED should be used to optimise ED clinical and administrative staffing levels.

## 3.4. Admit stream profile

The admit stream profile was investigated in relation to ED length of stay (ED LOS) and corresponding NEAT performance by day of week and hour of day with the results in the graphs below. Each chart has 168 data points (7 days x 24 hours per day) with N for each point between 32 and 295, average 146.




Key findings – analysis

- The data indicated variation in average admit stream ED LOS from a low of 5:32 (Tuesday 8-9am, N=119), to a high of 11:16 (Monday 11pm-12am, N=111).
- The data indicated variation in average admit stream NEAT performance from a low of 13% (Wednesday 1-2am, N=47), to a high of 47.3% (Saturday 1-2pm, N=207).

Key findings – observations

- Nil[2].

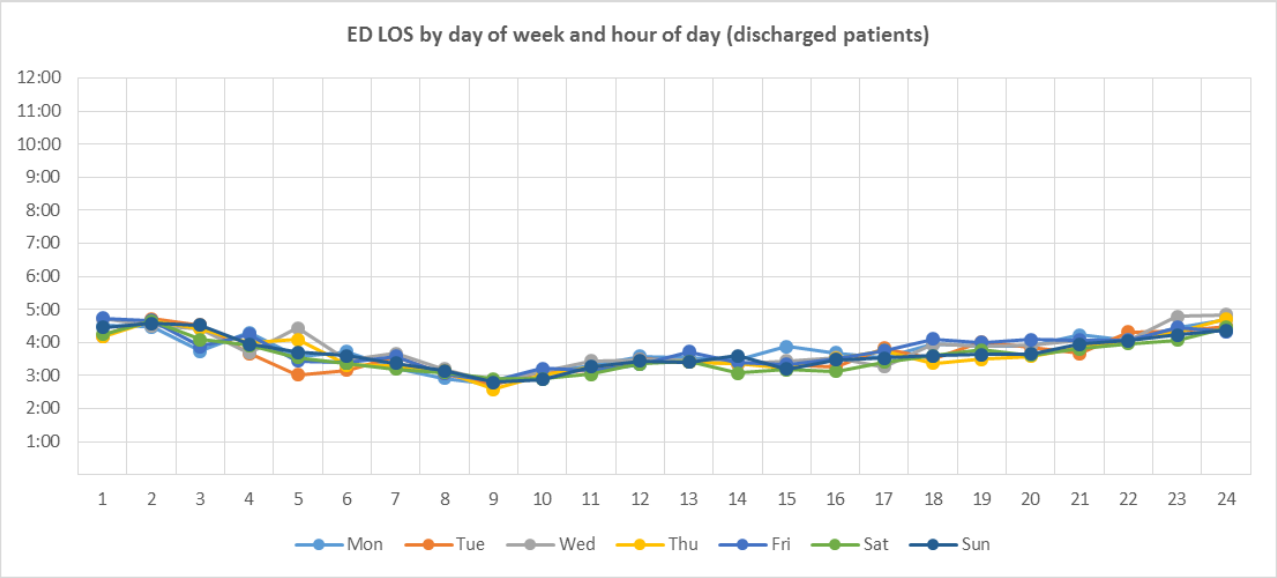
[2] Note further observations are included against the WOTTL and WAISH studies.

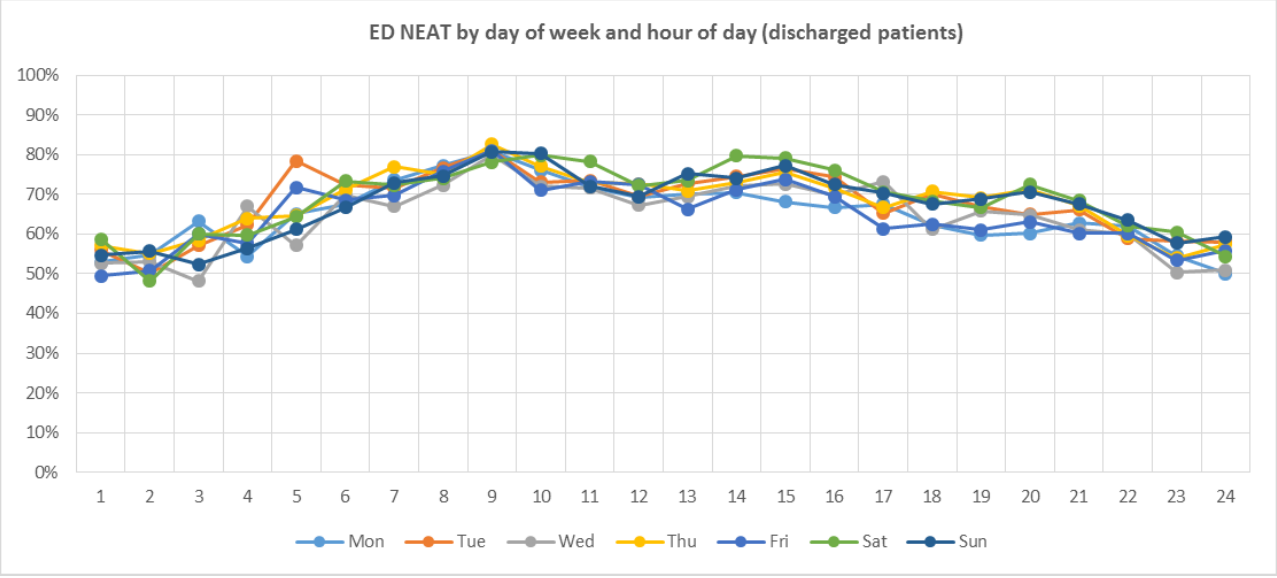
Conclusions

- Nil.

## 3.5. Discharge stream profile

The discharge stream profile was investigated in relation to ED length of stay (ED LOS) and corresponding NEAT performance by day of week and hour of day with the results in the graphs below. Each chart has 168 data points (7 days x 24 hours per day) with N for each point between 65 and 509, average 293.




Key findings – analysis

- The data indicated variation in average discharge stream ED LOS from a low of 2:35 (Thursday 8-9am, N=405), to a high of 4:50 (Wednesday 11pm-12am, N=226).
- The data indicated variation in average discharge stream NEAT performance from a low of 48% (Wednesday 2-3am, N=108), to a high of 83% (Thursday 8-9am, N=259).
- There is less variation in the discharge data between days of the week (indicated by the lines being closer together) than was observed in the admit data.

Key findings – observations

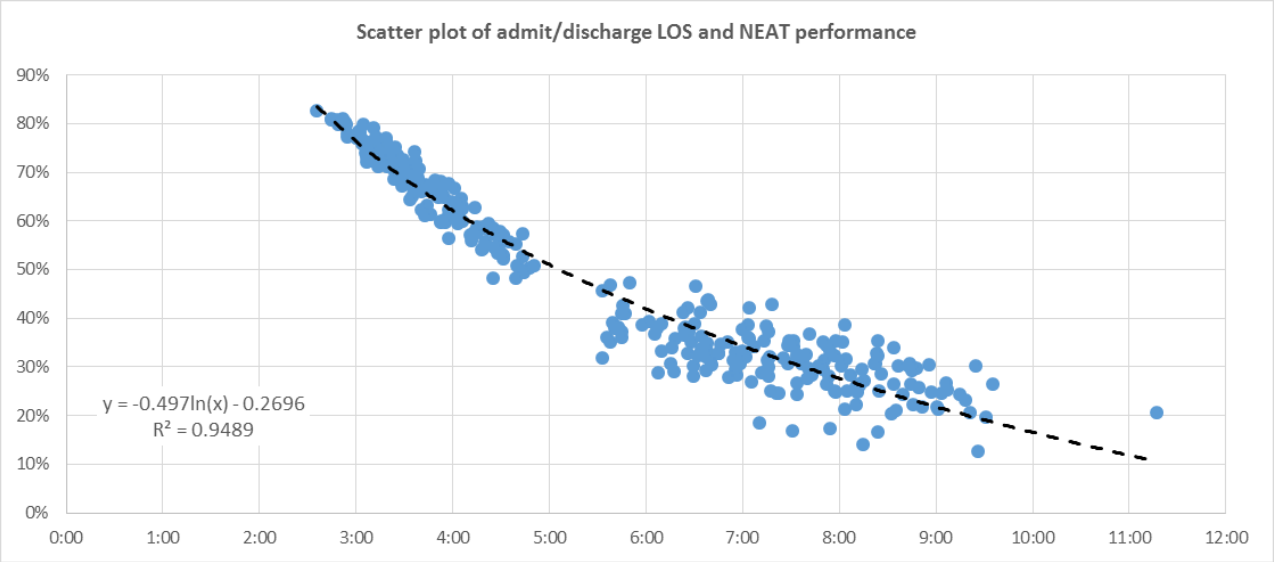
- Nil.

Conclusions

- Nil.

### 3.6. Relationship between ED LOS and NEAT performance

The relationship between ED LOS and ED NEAT performance was investigated using the data from the prior sections (168 data points for admit and discharge stream respectively) by way of a scatter plot with the results shown in the graph below[3]. The two distinct distributions correspond to the admit (lower right) and discharge (upper left) streams.




Key findings – analysis

- A logarithmic trend line can be fitted to the data set with high correlation (95%).
- Assuming an admit/discharge ratio of 33:67, and a best admit and discharge NEAT performance of 47% and 83% respectively; an ED NEAT score of 71% has been achieved.
- The trend line can be used for ED timeline management and planning as follows. An 80% ED NEAT could be achieved with an admit stream NEAT of 60% (average admit LOS ~ 4:10), and a discharge stream NEAT of 90% (average discharge LOS ~ 2:10).
- Alternatively, a 75% ED NEAT could be achieved with an admit stream NEAT of 55% (average admit LOS ~ 4:35), and a discharge stream NEAT of 85% (average discharge LOS ~ 2:30).

Key findings – observations

- Nil.

[3] The volume of data in admit and discharge streams permits segmenting performance into 2 x 168 = 336 groups (168 hours per week for admit and discharge) and then calculating NEAT performance and ED LOS for each data group. The resulting scatter plot provides insight into the relationship between ED LOS and NEAT.

Conclusions

- The above analysis should be used by CH to establish a target timeline for admit and discharge patient stream flow through the ED. E.g. for a target ED NEAT of 80%, the admit LOS must average approximately 4:10 and the discharge LOS average 2:10. Planned timeline targets will need to be less than these amounts.
- At approximately 65% NEAT each 4.5 min reduction in ED LOS equates to 1% NEAT performance improvement for the ED.

## 3.7. ED length of stay overall and by specialty

The average ED LOS by specialty was investigated using the data provided. The table below shows the ED LOS for individual specialties. Note calculations of average ED LOS and NEAT performance should be considered informative when the corresponding N is more than 30 and caution is warranted with N less than 30. A heat map colour code is added to the ED LOS field to assist in understanding high versus low LOS[4].

| Admitting specialty | Patient N | Admit LOS | Admit NEAT | Admitting specialty | Patient N | Admit LOS | Admit NEAT |
|---|---|---|---|---|---|---|---|
| Acute Surgical Unit | 308 | 7:12 | 21% | Oncology | 458 | 11:28 | 5% |
| Cardiac Surgery | 6 | 7:26 | 17% | Ophthalmology | 61 | 5:08 | 48% |
| Cardiology | 2165 | 4:57 | 56% | Oral Medicine | 1 | 1:01 | 100% |
| Dermatology | 18 | 9:35 | 22% | Oral-Maxillofacial Surgery | 72 | 6:00 | 39% |
| Ear, Nose and Throat | 262 | 6:14 | 35% | Orthopaedic Surgery | 1487 | 6:53 | 27% |
| Emergency Medicine | 7472 | 4:35 | 54% | Paediatric Surgery | 596 | 5:12 | 39% |
| Endocrinology | 119 | 9:31 | 10% | Paediatrics | 1998 | 5:48 | 32% |
| Gastroenterology | 998 | 10:38 | 12% | Plastic Surgery | 281 | 5:48 | 34% |
| General Medical Unit | 15 | 11:47 | 7% | Psychiatry | 701 | 20:41 | 7% |
| General Surgery | 1481 | 7:29 | 19% | Radiation Oncology | 67 | 10:56 | 9% |
| Geriatric Medicine | 671 | 13:53 | 1% | Rehabilitation | 2 | 8:59 | 0% |
| Gynaecology | 324 | 7:51 | 13% | Renal | 297 | 10:04 | 17% |
| Haematology | 240 | 11:19 | 9% | Respiratory | 971 | 11:20 | 9% |
| Immunology | 48 | 9:49 | 19% | Rheumatology | 96 | 11:58 | 5% |
| Infectious Diseases | 403 | 11:20 | 8% | Shock Trauma Service | 236 | 7:16 | 24% |
| MAPU | 928 | 9:59 | 8% | Thoracic Surgery | 58 | 7:24 | 21% |
| Neonatology | 10 | 5:12 | 20% | Unknown | 1 | 2:52 | 100% |
| Neurology | 704 | 10:12 | 11% | Urology | 455 | 7:33 | 20% |
| Neurosurgery | 327 | 7:51 | 27% | Vascular | 228 | 8:24 | 21% |
| Obstetrics | 62 | 7:32 | 18% | | | | |

Key findings – analysis

- Considering only specialties with more than 10 patient admissions, the data indicated that the four specialties with the highest average ED admit NEAT performance were:
  - Cardiology (N=2165, 4:57, 56%)
  - Emergency medicine/EMU (N=7472, 4:35, 54%)
  - Ophthalmology (N=61, 5:08, 48%)
  - Paediatric surgery (N=596, 5:12, 39%)
- Considering only specialties with more than 10 patient admissions, the data indicated that the four specialties with the lowest average ED admit performance were:
  - Geriatric medicine (N=671, 13:53, 1%)
  - Rheumatology (N=96, 11:58, 5%)

[4] Note the table provides for average performance with N as shown, with each data set having a unique standard deviation/distribution. For this reason there is not a direct relationship between ED LOS and NEAT and some variation is evident.

- Oncology (N=458, 11:28, 5%)
- Psychiatry (N=701, 20:41, 7%)

Key findings – observations

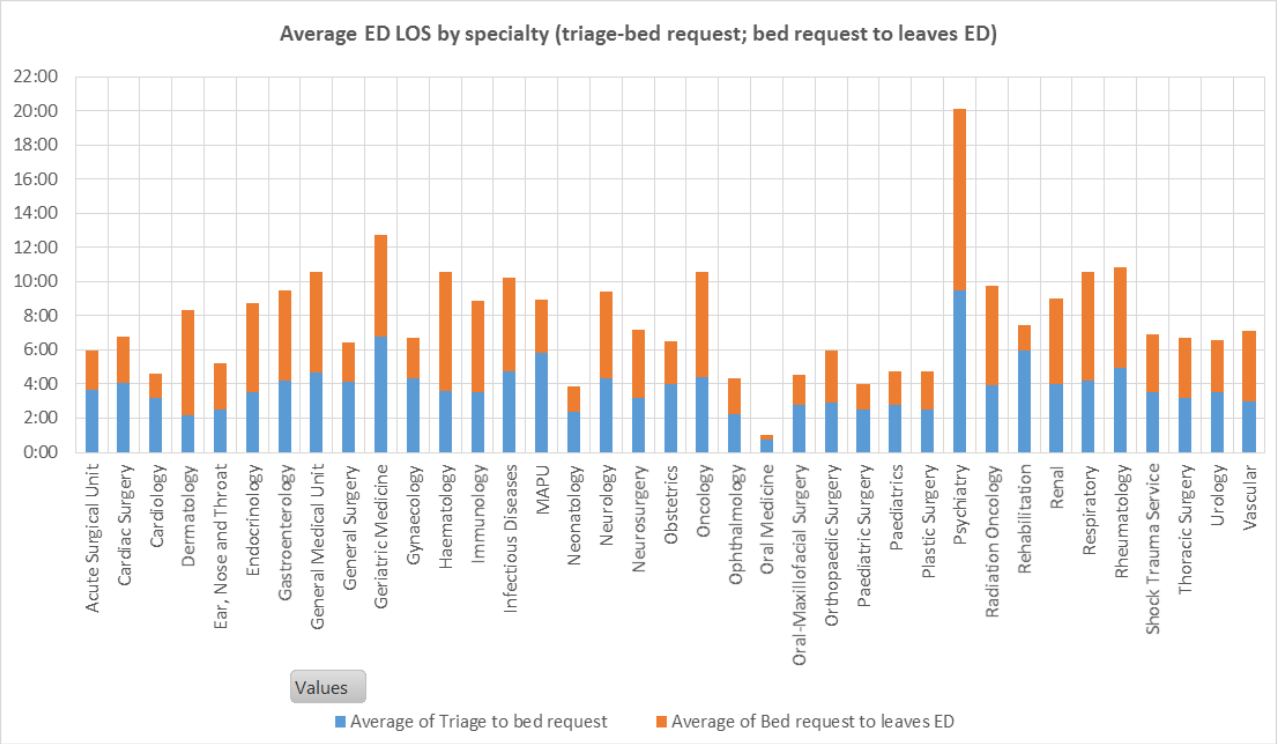
- Nil.

Conclusions

- Nil.

## 3.8. ED admit performance by specialty and stage

The ED admit performance by specialty was investigated to determine the proportion of time taken from triage to bed request, and from bed request to patient leaves ED. Note the stored time for 'departure ready' was used for the bed request date/time on the advice of the Business Intelligence Unit. The results are shown in the graph below with N as per the table in the section immediately above.




Key findings – analysis

- The data indicated there is considerable variation in both the duration and distribution of time taken from triage-be request; and from bed request-patient leaves ED.

Key findings – observations

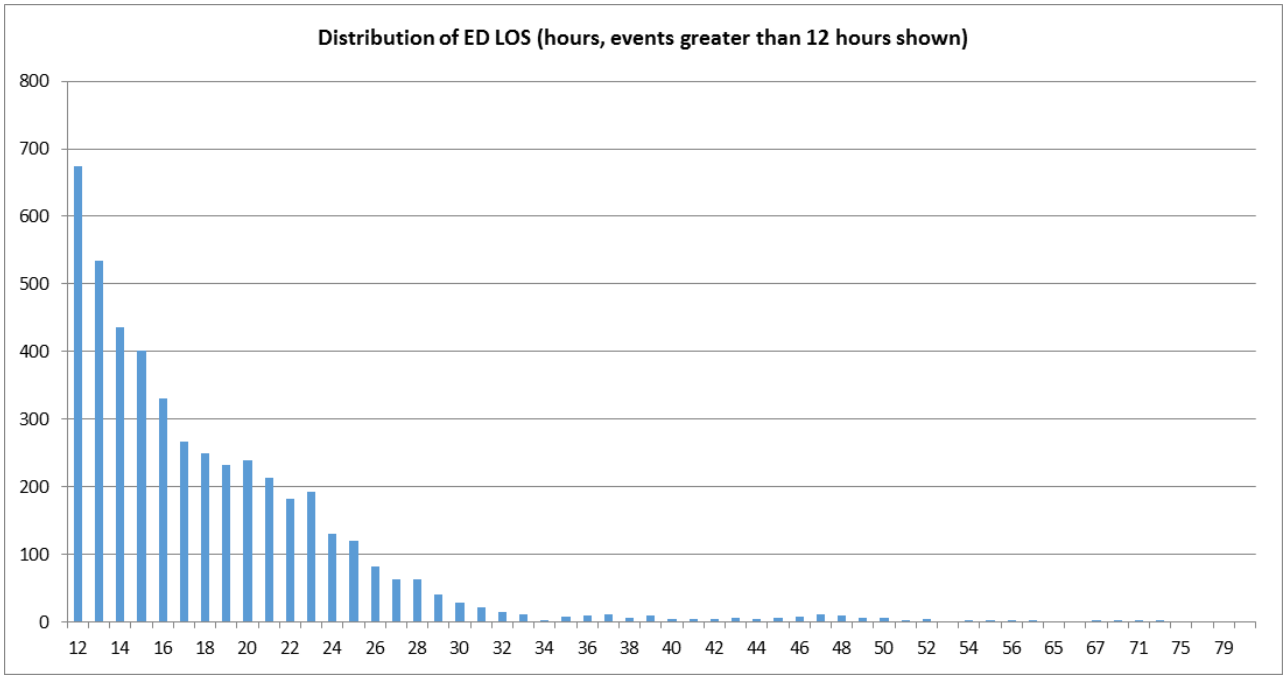
- Nil.

Conclusions

- Nil.

## 3.9. ED long length of stay

The distribution of ED long LOS patients was investigated to determine the distribution of patients staying longer than 12 hours with the results shown in the chart below. Note the data analysed the 73,950 events between 1/9/14 and 31/8/15.




Key findings – analysis

- The data indicated there is a considerable 'tail' of patients staying longer than 12 hours in the ED.
    - 4,692 patients/year or 13/day stayed longer than 12 hours in the ED
    - 737 patients/year or 14/week stayed longer than 24 hours in the ED
    - 145 patients/year or 12/month stayed longer than 36 hours in the ED
    - 56 patients/year or 14/quarter stayed longer than 48 hours in the ED
    - 17 patients/year stayed longer than 60 hours in the ED

Key findings – observations

- Nil.

Conclusions

- Increased LOS in the ED is associated with increased mortality[5], decreasing this LOS should be a priority for the CH.

[5] The association between hospital overcrowding and mortality among patients admitted via West Australian emergency departments. Peter C Sprivulus et al. MJA 2006.

# 4. Business of the hospital – wards

## 4.1. Study details

A high level review of hospital data was conducted using information provided covering 52,025 hospital ward discharges from 1/9/14 to 31/8/15. The data set excluded internal-to-hospital care type changes so that each entry reflected the total journey length from initial entry to final departure from the hospital. Note; to investigate long-length-of-stay the data set was based on 12 months of discharges, with the admission date for each entry in a limited number of instances occurring prior to 1/9/14.

## 4.2. Patient summary by admitting specialty

The table below shows the number of patients by admission specialty as same day (admission date = separation date) and multiple day stays.

| Admitting specialty | Same day | Multiple day | Total admissions | Admitting specialty | Same day | Multiple day | Total admissions |
|---|---|---|---|---|---|---|---|
| **REN** | 15201 | 270 | **15471** | **ADPBLU** | 12 | 365 | **377** |
| **OBS** | 723 | 6412 | **7135** | **REH** | 318 | 18 | **336** |
| **EME** | 4020 | 1935 | **5955** | **GER** | 15 | 315 | **330** |
| **ORT** | 885 | 1779 | **2664** | **HAE** | 9 | 293 | **302** |
| **PLA** | 1738 | 491 | **2229** | **INF** | 8 | 239 | **247** |
| **PAE** | 896 | 1099 | **1995** | **NEO** | 5 | 222 | **227** |
| **CAR** | 876 | 1046 | **1922** | **OPH** | 83 | 141 | **224** |
| **G/S** | 226 | 1351 | **1577** | **ASU** | 9 | 191 | **200** |
| **GAS** | 593 | 630 | **1223** | **THO** | 17 | 143 | **160** |
| **URO** | 364 | 596 | **960** | **STS** | 8 | 112 | **120** |
| **GYN** | 475 | 436 | **911** | **ROC** | 5 | 99 | **104** |
| **PDS** | 361 | 528 | **889** | **END** | 26 | 77 | **103** |
| **NEU** | 351 | 386 | **737** | **CTS** | 2 | 65 | **67** |
| **ENT** | 213 | 521 | **734** | **DEN** | 48 | 2 | **50** |
| **VAS** | 175 | 549 | **724** | **DER** | 28 | 21 | **49** |
| **PSY** | 4 | 627 | **631** | **GYNO** | 11 | 15 | **26** |
| **MAPU** | 15 | 558 | **573** | **GMU** | 6 | 13 | **19** |
| **RES** | 11 | 546 | **557** | **ANA** | 13 | 0 | **13** |
| **RHE** | 469 | 58 | **527** | **RAD** | 2 | 1 | **3** |
| **NUS** | 71 | 365 | **436** | **FET** | 1 | 0 | **1** |
| **ONC** | 11 | 415 | **426** | **ORA** | 0 | 1 | **1** |
| **IMM** | 367 | 31 | **398** | Grand Total | 28883 | 23142 | 52025 |
| **ORS** | 212 | 180 | **392** | Allocation | 56% | 44% | 100% |

Key findings – analysis

- The data indicated 56% of patient admissions were for same day events, 44% for multi-day stays.
- The data indicated the highest volume same day specialties are REN (15201), EME (4020), and PLA (1738).
- The data indicated the highest volume multi-day specialties are OBS (6412), EME (1935), and ORT (1779).

Key findings – observations

- Nil.

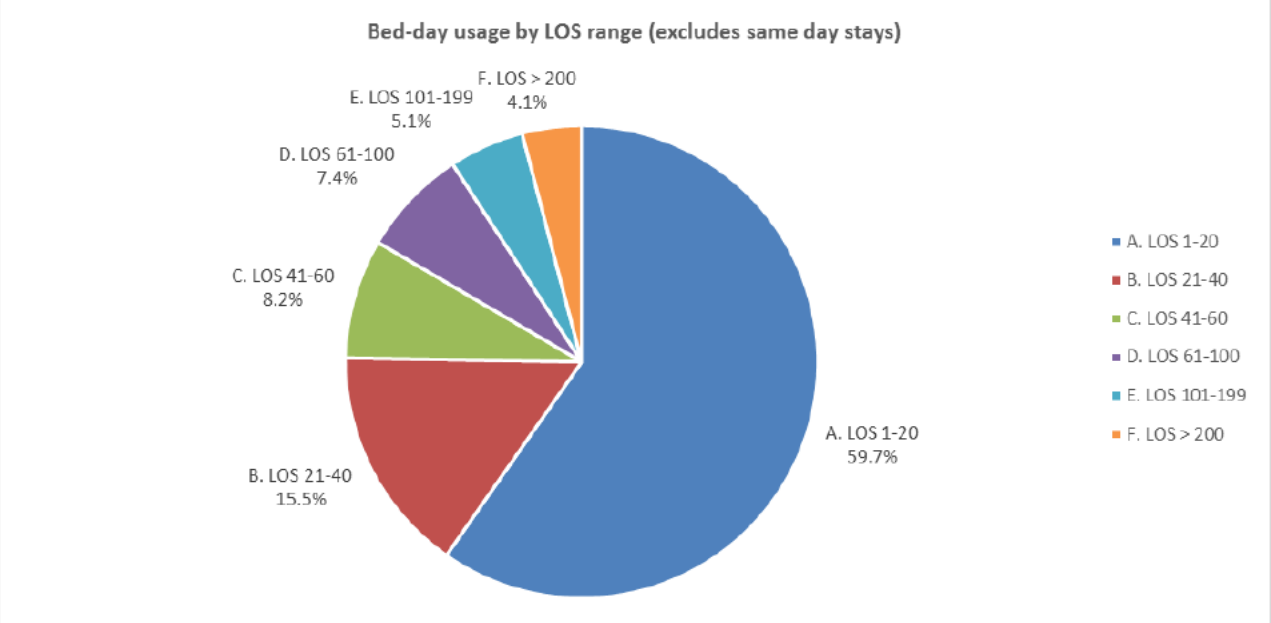
Conclusions

- Nil.

## 4.3. Long length of stay summary

An investigation into long length of stay (L-LOS) patients was investigated by reviewing the total hospital length of stay (including any care-type changes) for all patients discharged between 1/9/14 and 31/8/15. Only multiple day stays were considered (same day stays defined as admission date the same as discharge date). The table below shows patient LOS by duration grouped into 6 categories.

| Hospital LOS | Patient count | Average LOS | Bed days | Bed day % |
|---|---|---|---|---|
| A. LOS 1-20 days | 21,966 | 3.6 | 78,802 | 59.7% |
| B. LOS 21-40 days | 759 | 27.0 | 20,510 | 15.5% |
| C. LOS 41-60 days | 233 | 48.4 | 10,799 | 8.2% |
| D. LOS 61-100 days | 127 | 76.4 | 9,705 | 7.4% |
| E. LOS 101-199 days | 52 | 130.7 | 6,796 | 5.1% |
| F. LOS > 200 days | 15 | 357.3 | 5,360 | 4.1% |



The 15 individual patients L-LOS events that were greater that 200 days LOS in the above analysis were individual patients staying for:

1. 843 days (GER),
2. 632 days (G/M),
3. 476 days (G/S),
4. 430 days (G/S),
5. 408 days (REN),
6. 400 days (INF),
7. 311 days (END),
8. 285 days (GER),
9. 262 days (REN),
10. 238 days (NEU),
11. 226 days (END),
12. 217 days (VAS),
13. 216 days (PSY),
14. 210 days (EME), and
15. 208 days (VAS).

Key findings – analysis

- The data indicated there were considerable L-LOS events in CH.
    - 4.1% of bed days associated with multiple-day patient separations are for patients who have been in the hospital for longer than 200 days (N=15 patients).
    - 9.2% of bed days associated with multiple-day patient separations are for patients who have been in the hospital for longer than 100 days (N=67 patients).
    - 16.6% of bed days associated with multiple-day patient separations are for patients who have been in the hospital for longer than 60 days (N=194 patients).

Key findings – observations

- The long length of stay profile for CH represents significant opportunity for improvement.

Conclusions

- A high number of bed days are attributable to a specific cohort of long stay patients; management of these patients will yield a high number of beds for other patients and this should be a priority focus area.

## 4.4. Long length of stay review by discharge specialty

An investigation into long length of stay (L-LOS) patients by ward was investigated by reviewing the total hospital length of stay (including any care-type changes) for all patients discharged between 1/9/14 and 31/8/15. Only multiple day stays were considered (same day stays defined as admission date the same as discharge date). The table below groups patient LOS by duration into 6 categories with each entry representing one patient event, and highest multiple-stay volume specialties at the top of the table. The rightmost column shows the percentage of patient events with LOS greater than 60 days. Note specialties with N <50 were excluded.

| Specialties | A. LOS 1-20 | B. LOS 21-40 | C. LOS 41-60 | D. LOS 61-100 | E. LOS 101-199 | F. LOS > 200 | Grand Total | % events 60+ days |
|---|---|---|---|---|---|---|---|---|
| OBS | 5,594 | 10 | 4 | 1 | | | 5,609 | 0.0% |
| ORT | 1,702 | 87 | 32 | 15 | 4 | | 1,840 | 1.0% |
| EME | 1,398 | | | | | | 1,398 | 0.0% |
| G/S | 1,340 | 34 | 8 | 3 | 2 | 2 | 1,389 | 0.5% |
| PAE | 1,093 | 14 | 3 | 2 | 1 | | 1,113 | 0.3% |
| CAR | 1,008 | 15 | 6 | 2 | 1 | 1 | 1,033 | 0.4% |
| NEO | 937 | 56 | 9 | 16 | 5 | | 1,023 | 2.1% |

| Specialties | A. LOS 1-20 | B. LOS 21-40 | C. LOS 41-60 | D. LOS 61-100 | E. LOS 101-199 | F. LOS > 200 | Grand Total | % events 60+ days |
|---|---|---|---|---|---|---|---|---|
| PSY | 490 | 111 | 39 | 20 | 4 | 1 | 665 | 3.8% |
| URO | 640 | 9 | 2 | | 1 | | 652 | 0.2% |
| GAS | 600 | 28 | 2 | 2 | 2 | | 634 | 0.6% |
| RES | 528 | 30 | 5 | 2 | | | 565 | 0.4% |
| VAS | 513 | 26 | 4 | 3 | | 1 | 547 | 0.7% |
| ENT | 521 | 8 | | 1 | | | 530 | 0.2% |
| PDS | 525 | 1 | | | 1 | | 527 | 0.2% |
| PLA | 493 | 14 | 4 | 2 | 1 | | 514 | 0.6% |
| MAPU | 464 | 2 | | | | | 466 | 0.0% |
| GYN | 464 | | | | | | 464 | 0.0% |
| ONC | 389 | 38 | 15 | 2 | 4 | | 448 | 1.3% |
| NEU | 378 | 16 | 4 | 3 | 1 | 1 | 403 | 1.2% |
| GER | 297 | 53 | 13 | 14 | 1 | 2 | 380 | 4.5% |
| ADPBL | 365 | | | | | | 365 | 0.0% |
| NUS | 322 | 26 | 11 | 3 | 1 | | 363 | 1.1% |
| HAE | 264 | 35 | 10 | 2 | 1 | | 312 | 1.0% |
| REN | 242 | 25 | 9 | 6 | 4 | 2 | 288 | 4.2% |
| INF | 222 | 20 | 8 | 4 | 2 | 1 | 257 | 2.7% |
| ORS | 184 | 1 | | | | | 185 | 0.0% |
| THO | 155 | 5 | 2 | | | | 162 | 0.0% |
| ASU | 141 | 6 | | 1 | | | 148 | 0.7% |
| OPH | 141 | 2 | | | | | 143 | 0.0% |
| GMU | 94 | 16 | 7 | 3 | 2 | | 122 | 4.1% |
| ROC | 81 | 22 | 5 | 1 | 1 | | 110 | 1.8% |
| STS | 90 | 5 | 1 | | | | 96 | 0.0% |
| RHE | 72 | 10 | 1 | | | | 83 | 0.0% |
| CTS | 68 | 8 | 1 | 1 | | | 78 | 1.3% |
| REH | 6 | 20 | 17 | 18 | 12 | 2 | 75 | 42.7% |
| END | 71 | 3 | | | | 1 | 75 | 1.3% |
| **Grand Total** | **21892** | **756** | **222** | **127** | **51** | **14** | **23,062** | |

Key findings – analysis

- The data indicated the five wards with the highest percentage volume of patients staying longer than 60 days were REH (42.7%), GER (4.2%), REN (4.2%), GMU (4.1%), and PSY (3.8%).

Key findings – observations

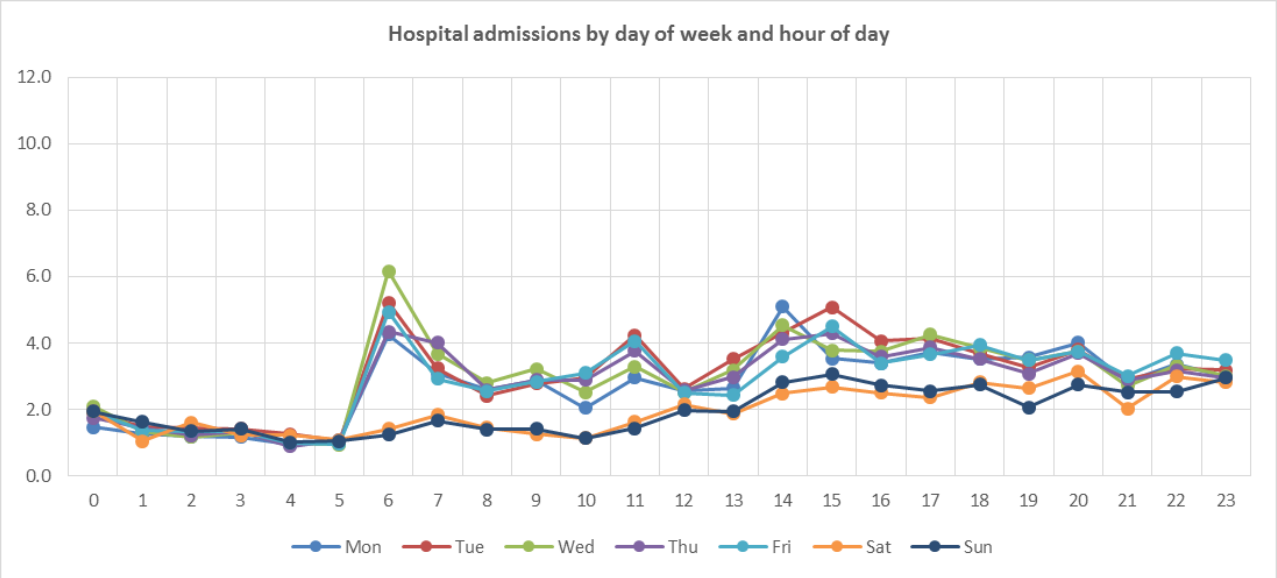
- The long length of stay profile for CH represents significant opportunity for improvement.

Conclusions

- Operational management processes at CH should be reviewed to avoid excessive long length of stay events.

## 4.5. Ward admission profile

The ward admissions profile was investigated by day of week (Monday to Sunday) and hour of day (0 to 23) to ascertain key volumes and trends with the results summarised in the chart below. The data shows average admissions for each day/hour combination. Only multiple day stays (N=23,142) are considered below.




Key findings – analysis

- The data indicated a different profile for admissions on weekends, compared to business days.
- The data indicated a peak average rate of admissions of 6.2 on Wednesday at 6-7 am.
- The data indicated that 31% of daily average admissions take place by 9am.
- The data indicated there was a lower level of admissions on Saturday and Sundays.

Key findings – observations

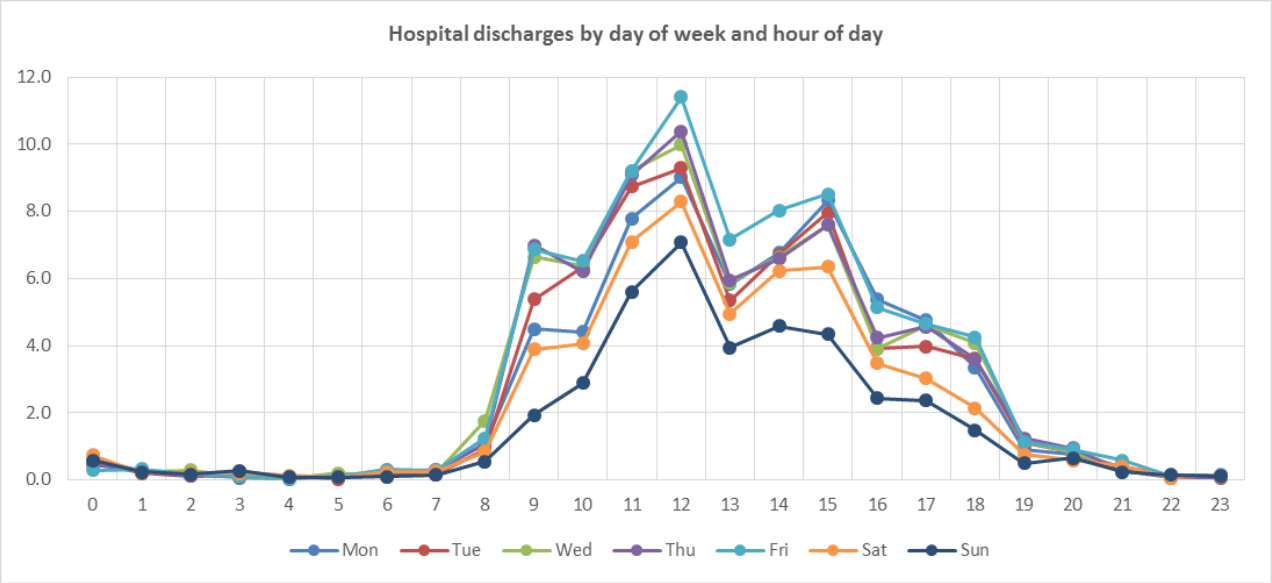
- Nil.

Conclusions

- Nil.

## 4.6. Ward discharge profile

The ward discharges profile was investigated by day of week (Monday to Sunday) and hour of day (0 to 23) to ascertain key volumes and trends with the results summarised in the chart below. The data shows average admissions for each day/hour combination. Only multiple day stays (N=23,142) are considered below.




Key findings – analysis

- The data indicated a different profile for admissions on weekends, compared to business days.
- The data indicated a peak average rate of discharges of 11.4 on Friday at 12-1pm.
- The data indicated that 12%% of daily average admissions take place by 10am.
- The data indicated a high level of discharges on Saturday and Sundays.

Key findings – observations

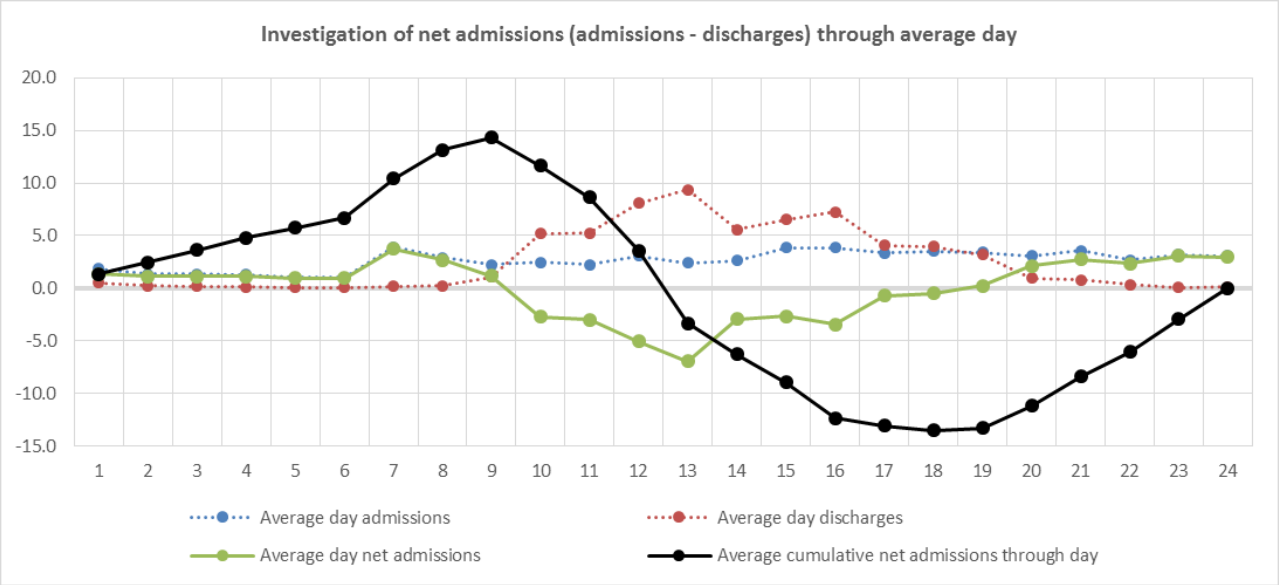
- The weekend discharge patterns are relatively high compared to comparable peer sites.

Conclusions

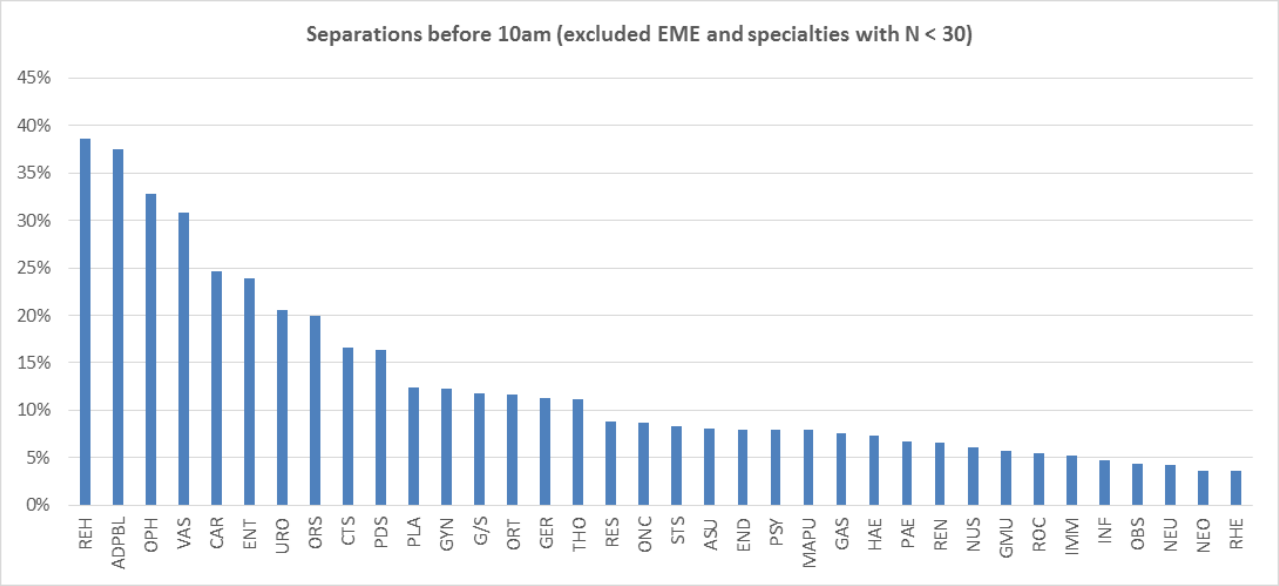
- Nil.

## 4.7. Net separations and separations before 10am

An investigation into the impact of net separations on bed requirements was conducted using the multiple day stay admissions and separations data by day of week and hour of day. A daily average net separation was calculated and then shown as a cumulative result across an average day in the chart below.




An investigation into discharge patterns was completed by reviewing discharge before 10am performance by ward. Only multiple day stays were considered and excluded from the analysis were EME and specialties with N < 30.



Key findings – analysis

- The data indicated that on average, the mismatch between admissions and separations (admissions occurring earlier) places a requirement for 15 additional beds[6].
- The data indicated that an average of 13% patients separate before 10 am.
- The data indicated the specialties with the highest separations before 10am are REH (39%), ADPBL (38%), and OPH (33%).
- The data indicated the specialties with the lowest separations before 10am are RHE (4%), NEO (4%), and NEU (4%).

Key findings – observations

- In our experience the discharge before 10am profile represents a significant opportunity for improvement.

Conclusions

- Discharge practices at CH should be reviewed to improve the discharge before 10am performance to reduce the demand on CH beds that the current net discharge profile imposes.

[6] Note we are not requesting 15 extra beds, rather noting that the cumulative net admissions place a requirement for at least 15 additional beds each day. Increasing discharges before 10am and reducing LOS will assist in this regard.

## 5.2. High level WOTTL data summary

### Summary by primary stream

The overall NEAT performance based on collected and analysed data for the study is shown in the table below.

| Patient stream | NEAT % | N (5 of total) |
|---|---|---|
| Discharge stream | 69% | 220 (53%) |
| Admit stream | 35% | 188 (46%) |
| Did not wait | 75% | 4 (1%) |
| Total | 53% | 412 (100%) |

**Summary by triage category**

The overall NEAT performance from the recorded data based on triage category is shown in the table below.

| Triage category | NEAT % | N … (% of total) |
|---|---|---|
| Category 1 | 50% | 2 (0.5%) |
| Category 2 | 40% | 52 (13%) |
| Category 3 | 42% | 174 (42%) |
| Category 4 | 65% | 155 (38%) |
| Category 5 | 83% | 29 (7%) |

Key findings – analysis

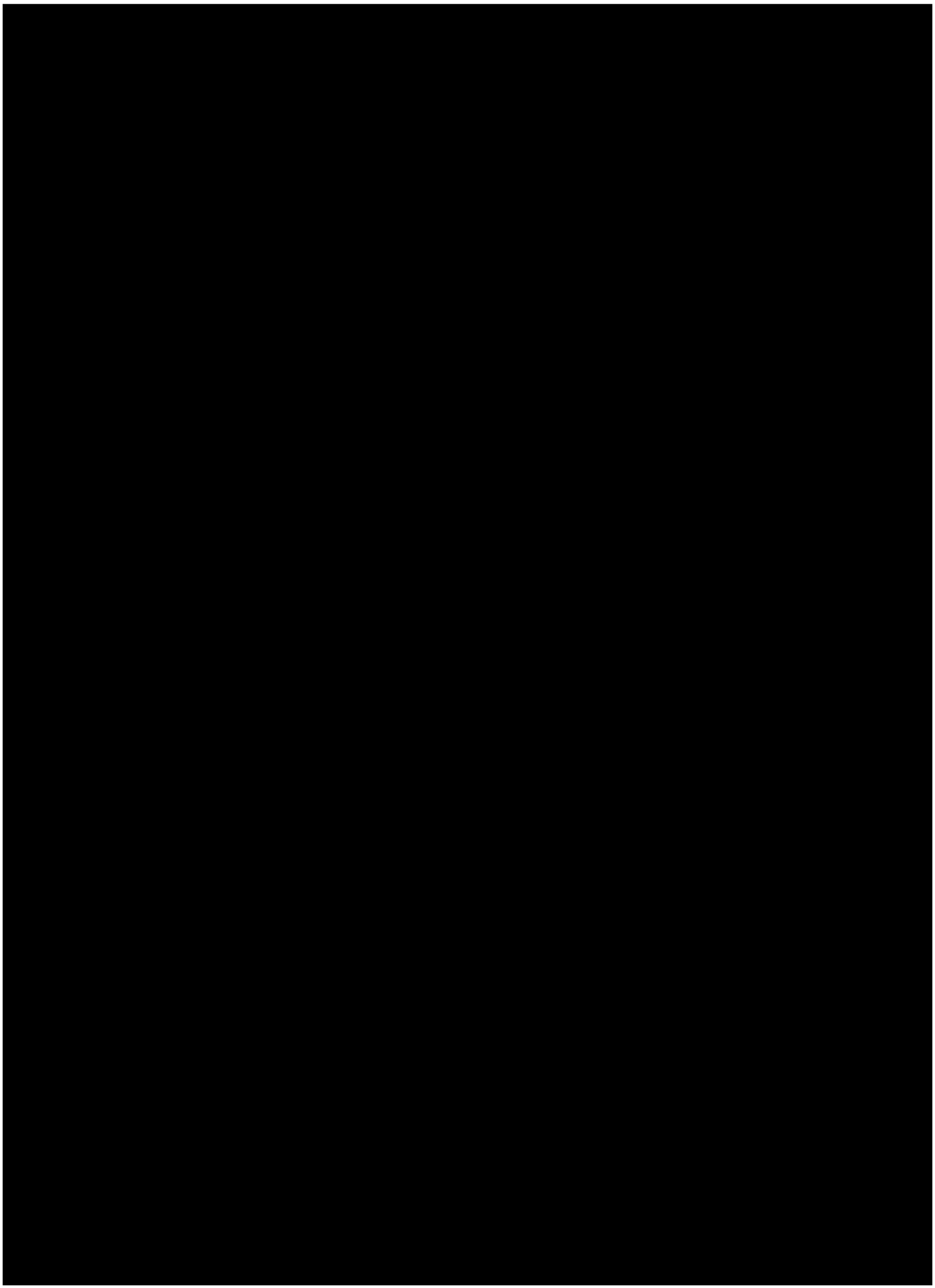
- The data indicated that the NEAT performance for admit stream, discharge stream and overall ED for the WOTTL study was largely consistent with that achieved during the 12 month period from 1/9/14 to 31/8/15.

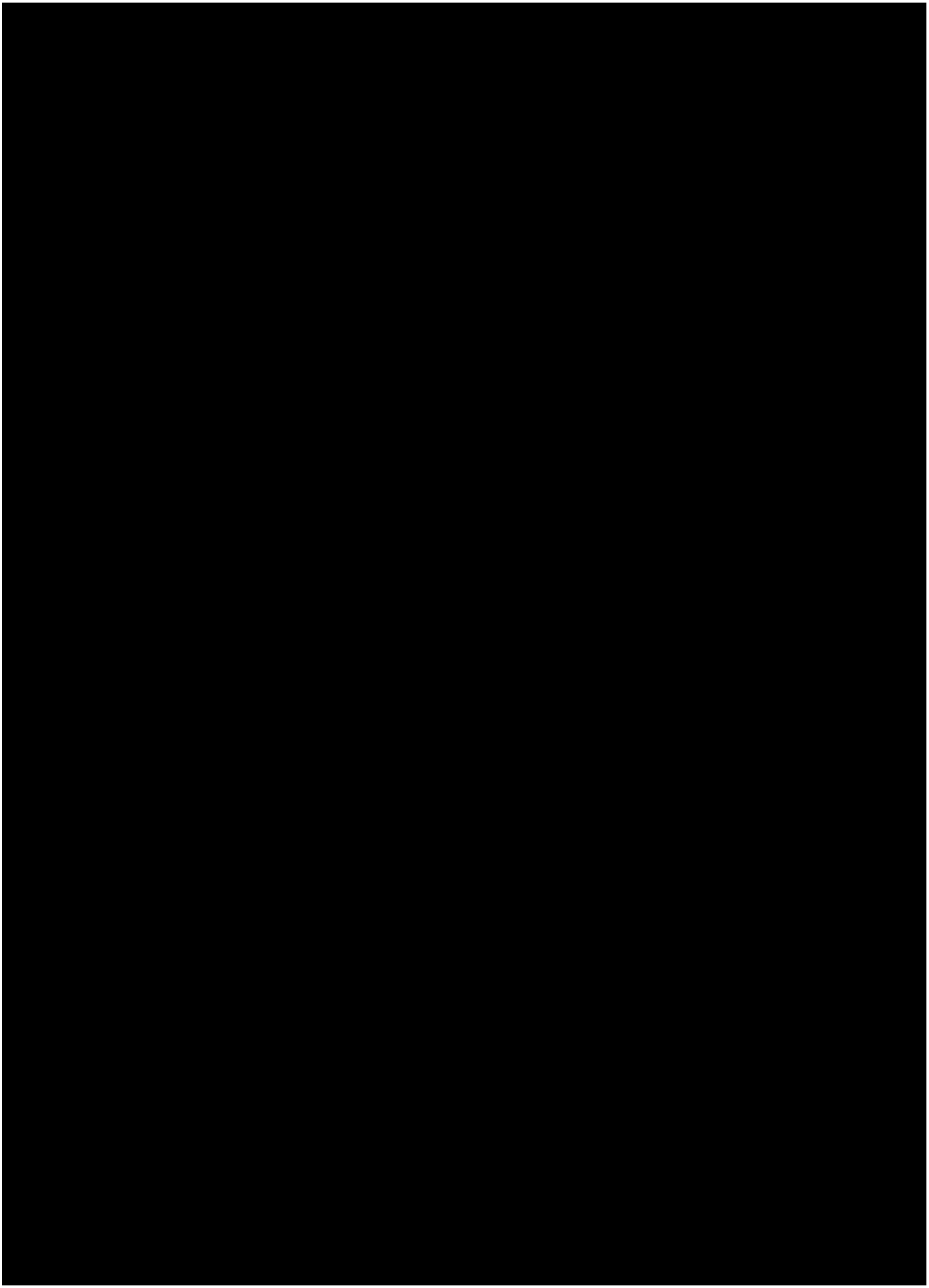
Key findings – observations

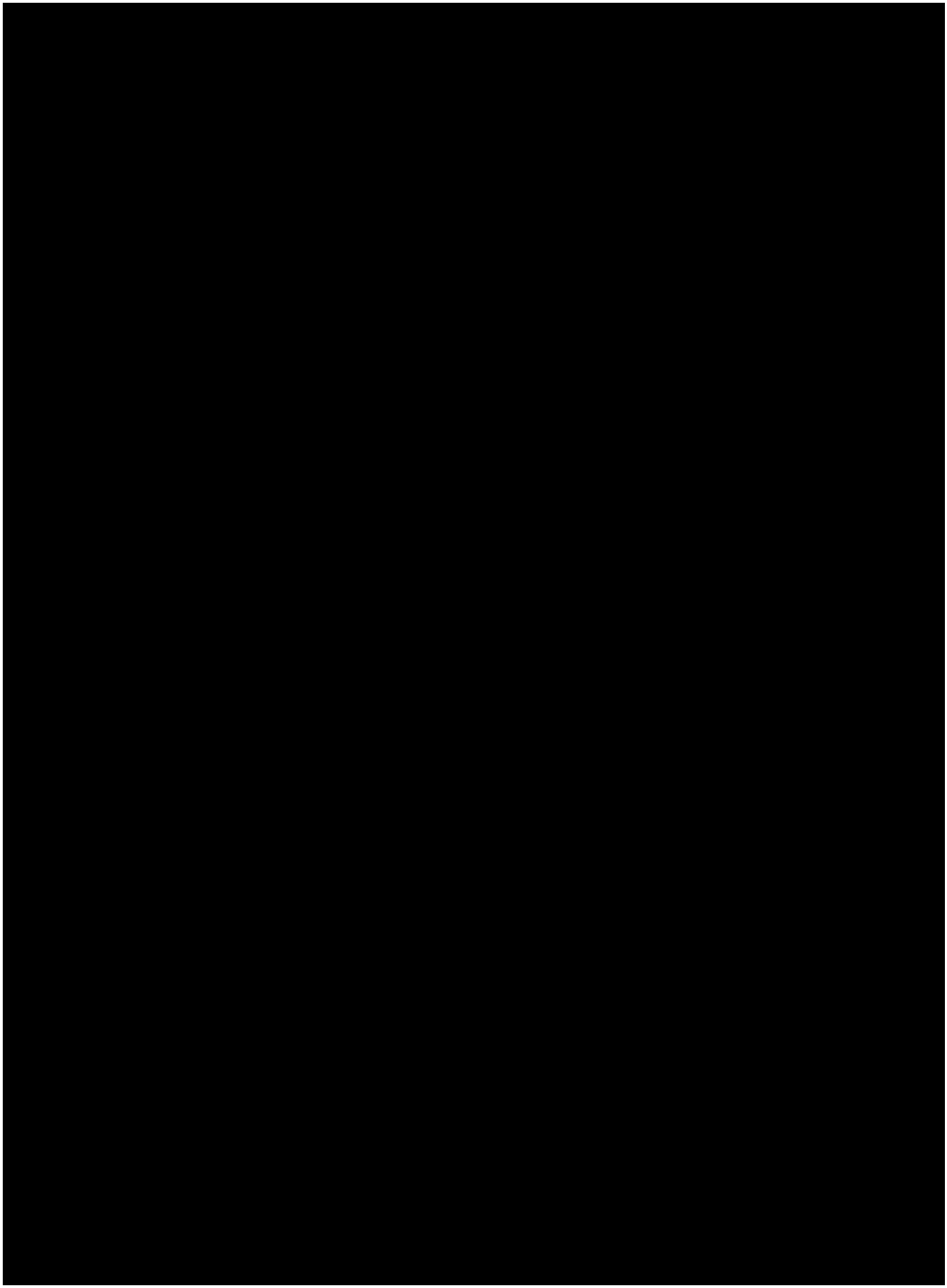
- We observed a culture within the ED that is one of team work with positive communication and a can do attitude. It is commendable that the staff work effectively in such a logistically constrained environment.
- Our observations pertaining to process delays are similar to those observed in similar ED's around Australia.
- The did not wait rate is exemplar compared to similar peer hospitals.

Conclusions

- There is significant opportunity to improve flow as measured by the NEAT.

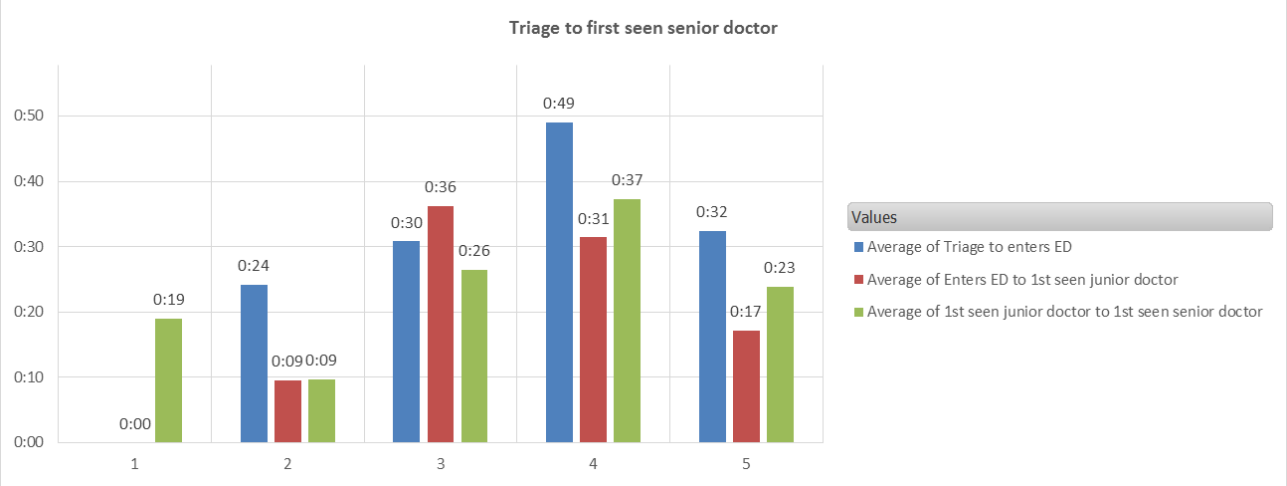




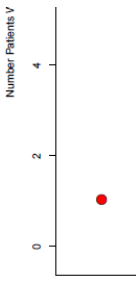


## 5.4. Triage to 1st seen decision/senior doctor

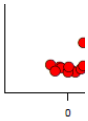
The process from triage to first seen decision/senior doctor was investigated by triage category with the results shown below.




An investigation into the timeliness of patients entering the ED was conducted by reviewing the location of patients in A and B ED streams. The data was provided by ACT BIU on our request. The scatter plots for A stream (patients in A WAIT and patients in acute beds in the ED) is shown in the graph below.




The scatter plot for B stream (patients in B WAIT and patients in B stream treatment) is shown in the graph below.




Key findings – analysis

- The data indicated the average time from triage to enters ED varies with triage category from a low of 0 (immediate entry, cat 1), to a high of 49 mins (cat 4).
- The data indicated the average time from enters ED to first seen junior doctor varies from 0 (immediate, cat 1) to a high of 36 mins (cat 3).
- The data indicated the average time from first seen junior doctor to first seen senior doctor varies from 9 mins (cat 1), to 37 mins (cat 4).
- The data indicated that there have been multiple instances of up to 2 patients waiting in the A stream wait with A stream acute beds not at full occupancy.
- The data indicated that there have been multiple instances of up to 16 patients waiting in B stream wait with the B stream treatment not at full occupancy.

Key findings – observations

- Junior Dr's often saw patients first then went looking for senior Dr's for a discussion or a review of the patient.
- There was cherry picking of patients by medical staff, particularly towards the end of a shift.
- There were delays in patients being pulled into the ED, with patients waiting in A/B stream wait, and empty beds in the ED.
- We observed evidence of patients entering the ED in batches of up to 4 patients at a time; with the beds they were allocated not becoming available all at once.
- The B stream NC covers triage for breaks and stops managing flow at that point.
- There are a high number of interns working and rostered in the ED.

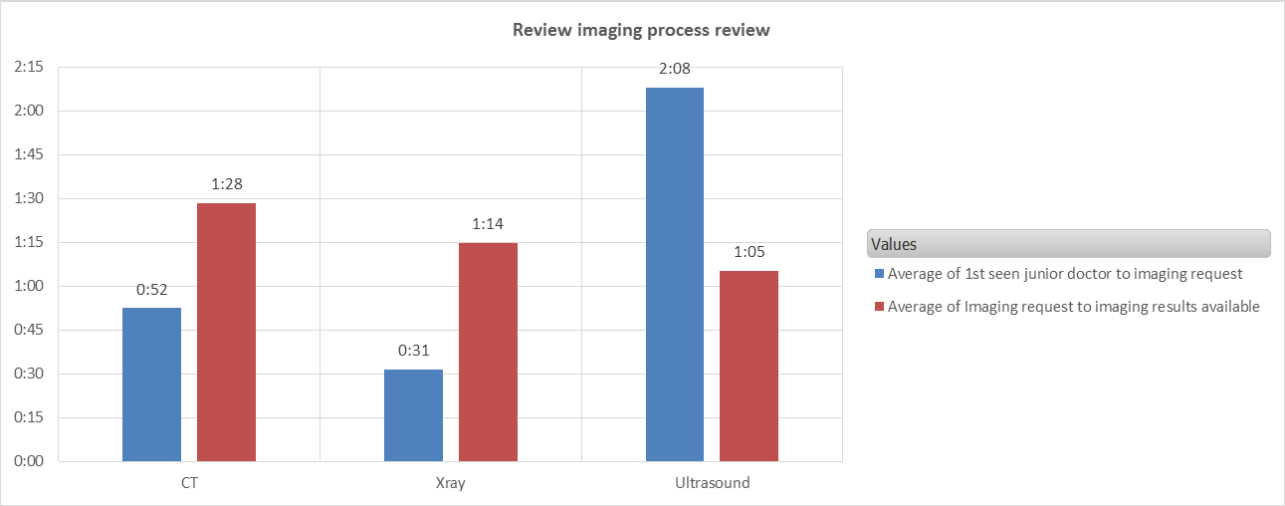
Conclusions

- Junior Dr's saw patients first then went looking for a senior Dr to discuss/request review, this increased the ED LOS for patients.

- The junior/senior Dr processes for assessing patients would benefit from more rigour around communication and supervision.
- The high number of interns rostered in the ED presents a significant teaching and supervision workload for the senior Dr's, this needs review.
- ED processes should be reviewed to ensure patients are pulled (or pushed) into the ED in a timelier manner.
- The role of the NC should be reviewed and a role developed with a focus on timeline and patient journey management. This should be separate from a clinical role and developed within current FTE.

## 5.5. Imaging process investigation

The imaging process was investigated by averaging time pairs for seen junior doctor to imaging request, and imaging request to imaging results available. This investigation was conducted for Xray (N=83), CT (N=12), and Ultrasound (N=5) with the results in the graph below.




Key findings – analysis

- The data indicated the average cycle time from CT request to results available is 1:28, with test request occurring 52 mins after first seen junior doctor.
- The data indicated the average cycle time from X-ray request to results available is 1:14, with test request occurring 25 mins after first seen junior doctor.
- The data indicated the average cycle time from ultrasound request to results available is 1:05, with test request occurring 2:08 mins after first seen junior doctor.

Key findings – observations

- There was general widespread anecdote within the ED regarding delays to imaging. This was also reflected in hospital wide anecdote regarding delays to imaging.

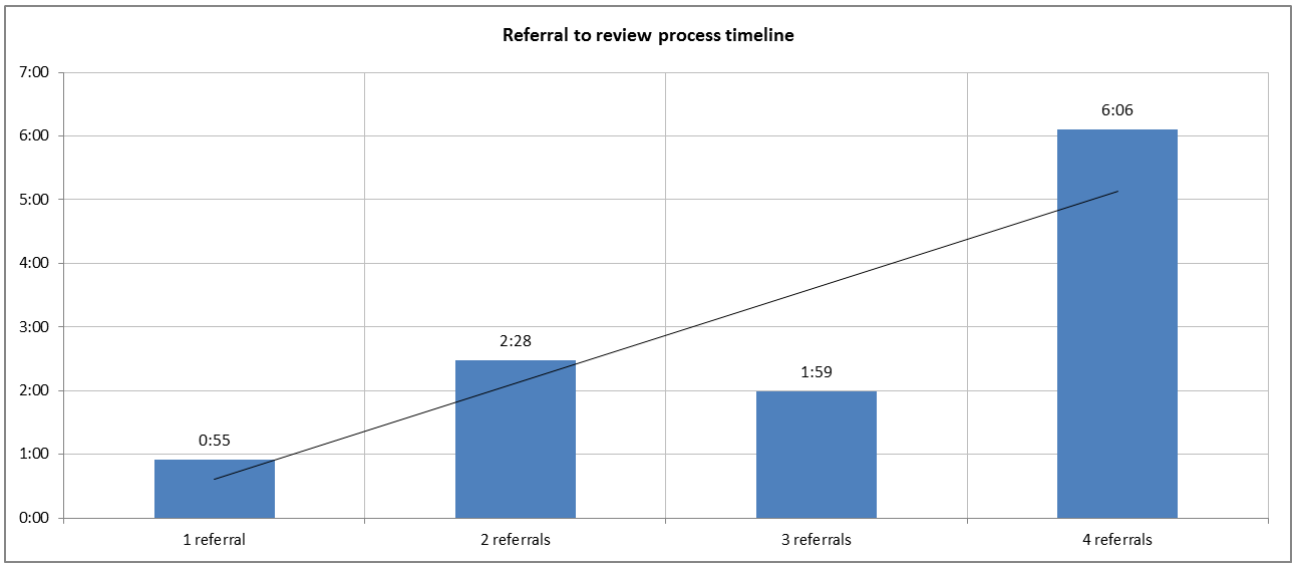
Conclusions

- The processes management CT imaging activities in the ED should be reviewed to enable faster CT cycle times.

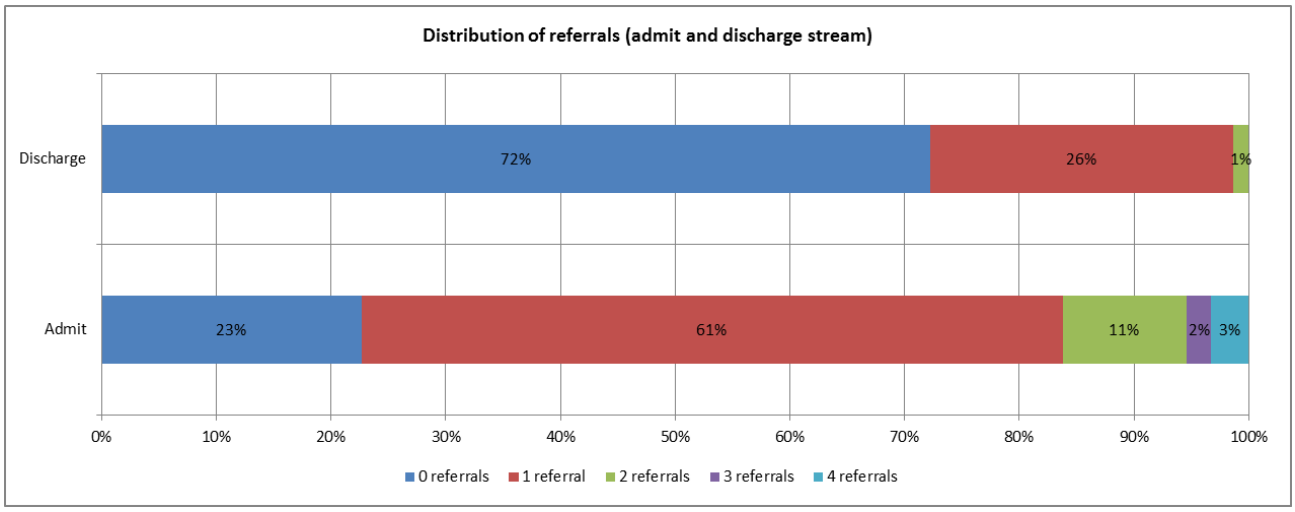
- Further imaging data is required to support or refute the strong anecdote of imaging delays inclusive of defining exactly where the problem is (process, resources, reporting etc.). This data was requested but not supplied.

## 5.6. Multiple referrals process investigation

The impact of multiple referrals was investigated by reviewing events of multiple referrals and considering the average time from first referral to final review with the results shown in the graph below. Note N for 1, 2, 3, and 4 referrals was 172, 24, 4 and 6 respectively. Note with N for 3 and 4 referrals less than 20 the data should be viewed as indicative only and subject to further investigation.




The distribution of referrals was investigated by reviewing the number of referrals that occurred for admit and discharge patients (between 0 and 4 referrals) with the results shown in the chart below.



Key findings – analysis

- The data indicated that the average time from referral to review varies with the number of referrals from 55 mins for 1 referral, to 6:06 for 4 referrals. Note for 3 and 4 referrals the number of data points is < 10.
- The data indicated that 77% of admitted patients had one or more referrals.
- The data indicated that 28% of discharged patients had one or more referrals.

Key findings – observations

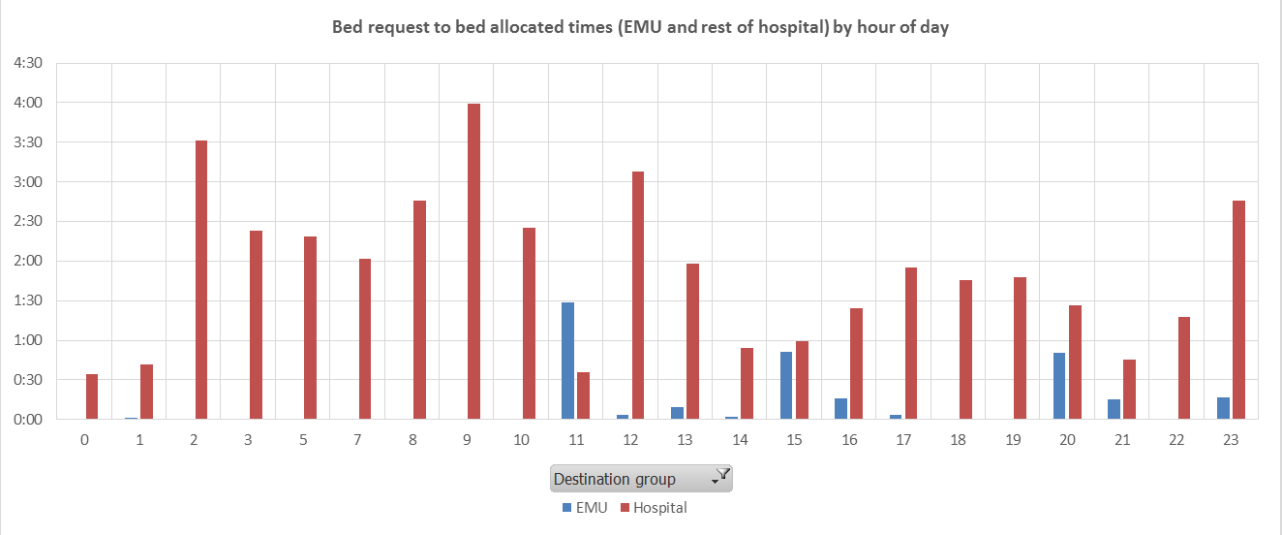
- There were extensive delays associated with multiple referrals.
- High levels of referrals to inpatient teams were made by the by the ED medical staff.
- The percentage of patients that had a referral to an inpatient team in the discharge stream was high.
- Refusal by the inpatient team by phone request for review and admission was common.
- Lack of arbitration for refusal to accept admissions by the inpatient team was observed on a number of occasions.
- Patients received multiple reviews by the same team that the patient was originally referred to and "bounced" between these inpatient teams (General Surgery, Obstetrics/Gynaecology).
- The ED staff spent significant time trying to find an accepting team and this was observed to be the responsibility of the ED staff, not the inpatient teams.
- Inpatient teams frequently came to the ED, reviewed patients and left without communicating decisions.
- The ED staff were frequently unaware of when the inpatient teams would be attending the ED to review patients.
- Frequent batching of patients occurred as part of the process for Admitting Registrar for Medicine (ARM) review.

Conclusions

- There were extensive delays in the patient journey and a subsequent increased ED LOS with 2 or 4 referrals to inpatient teams.
- ED processes governing referrals and multiple referrals for ED patients must be reviewed to minimise the impact of multiple referrals on patient progress through the ED.
- A process for one way referrals should be investigated and an arbitration process at the hospital wide level agreed.
- The root causes for the high number of inpatient referrals for the discharge stream patients will require defining.
- The ARM role should be reviewed. Batching of patients contributes to an increased LOS for those patients requiring an ARM review prior to referral to an admitting inpatient team.

## 5.7. Bed allocation process investigation

The variation in bed request to bed allocation process was investigated by looking at the average time from request to allocation by hour of day at time of request. The results for EMU and hospital bed requests are shown in the graph below.




Key findings – analysis

- The data indicated that the average time from bed request to allocate for hospital beds varies considerably by time of day with a range of 34 mins to 3:59.
- The data indicated that the average time from bed request to allocate for EMU beds varies considerably by time of day with a range of 0 mins to 1:29.

Key findings – observations

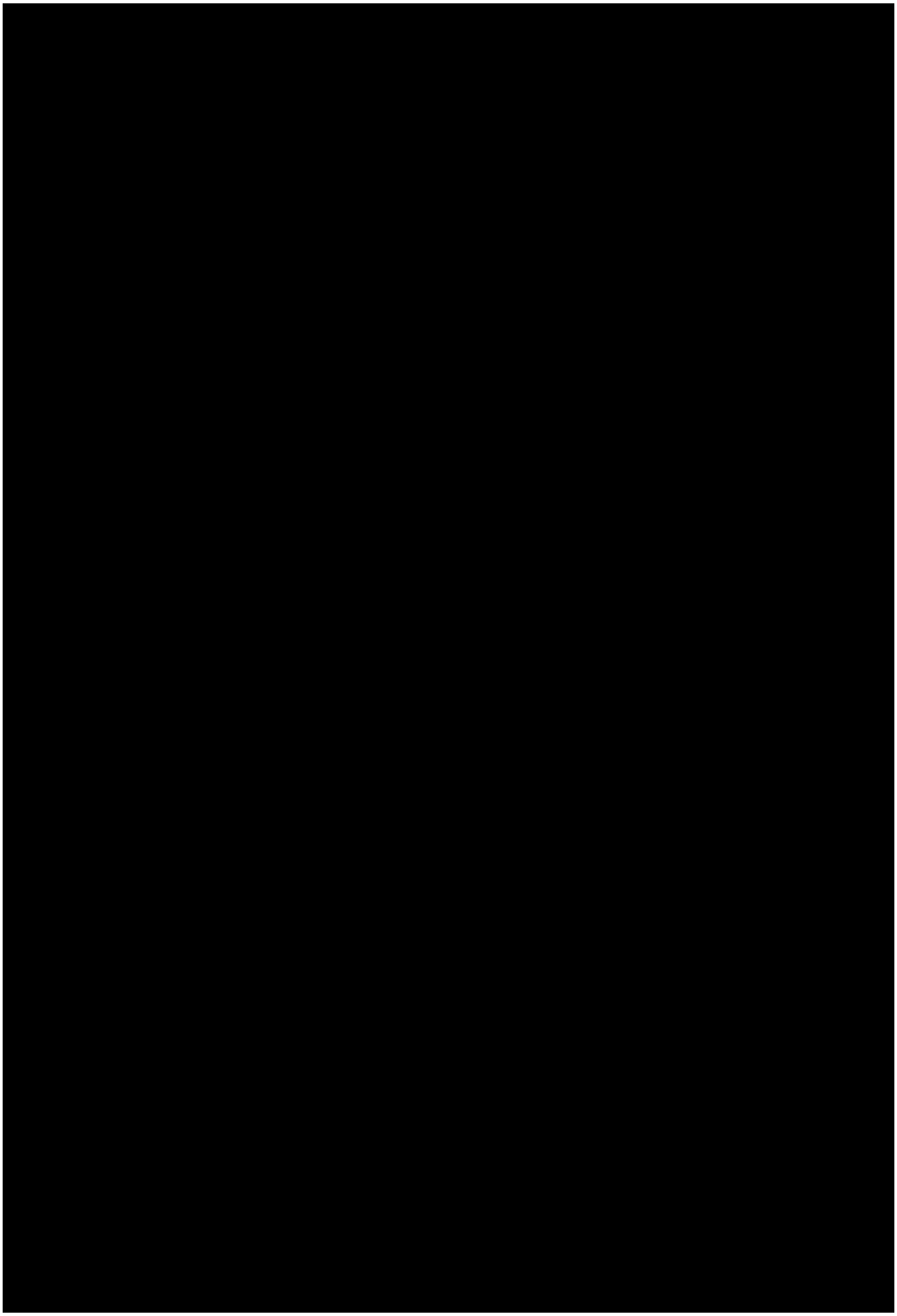
- There was considerable variation in the time taken to allocate beds.
- Batching in bed allocation associated with patient flow rounding was common (i.e. delays were incurred for individual patients as part of this process).
- The internal processes within the Access Unit for bed allocation were highly variable.
- At times the Access Unit staff were aware of bed requests from the ED and had knowledge of a corresponding suitable bed.
- The Access Unit staff only allocated beds that are ready and not virtual.
- There was a lack of a clearly defined escalation process both within the ED and Access Unit for patients with increasing ED LOS.
- There was minimal executive or Access Unit presence in the ED during times of overcrowding noted during the study period.

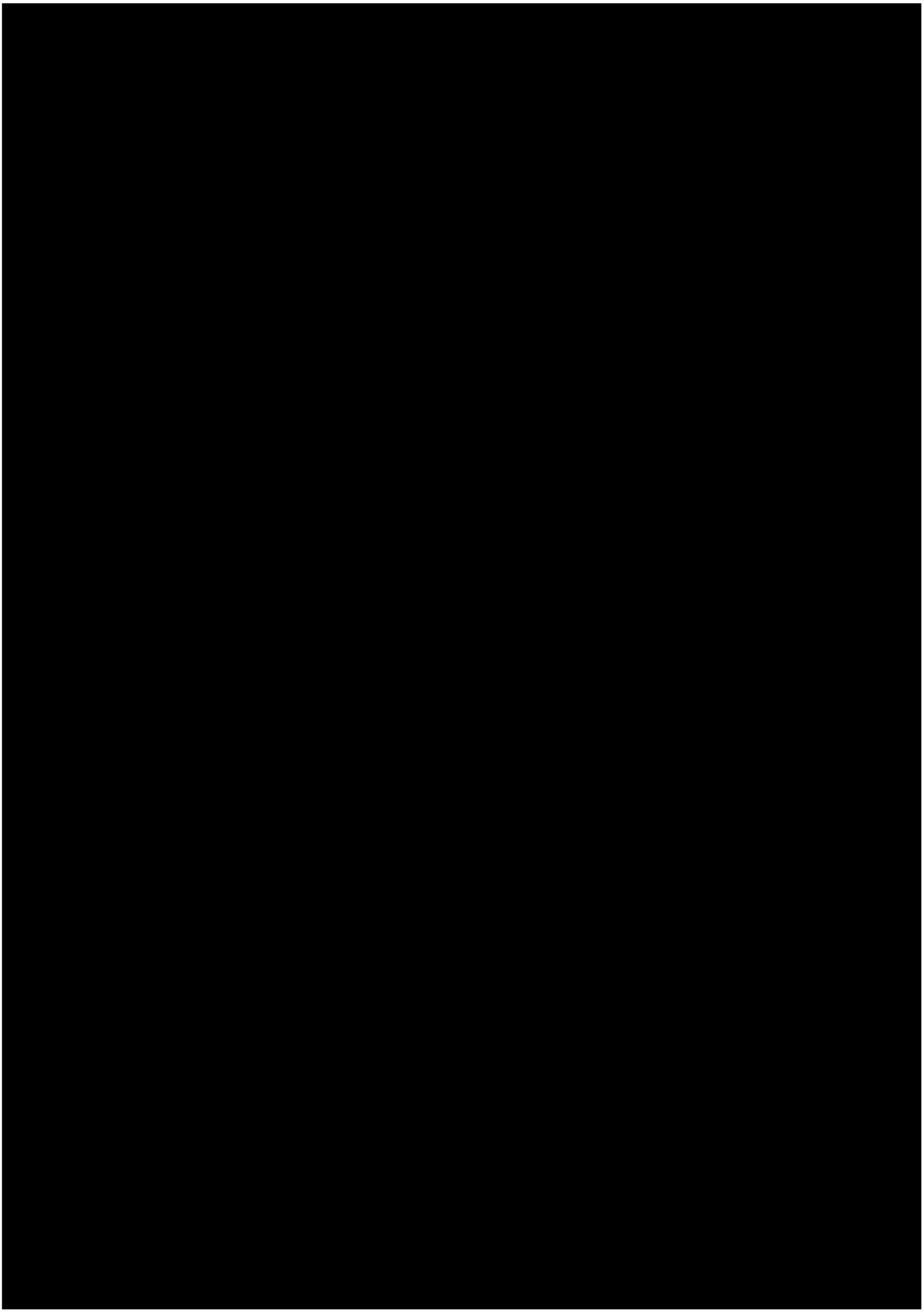
Conclusions

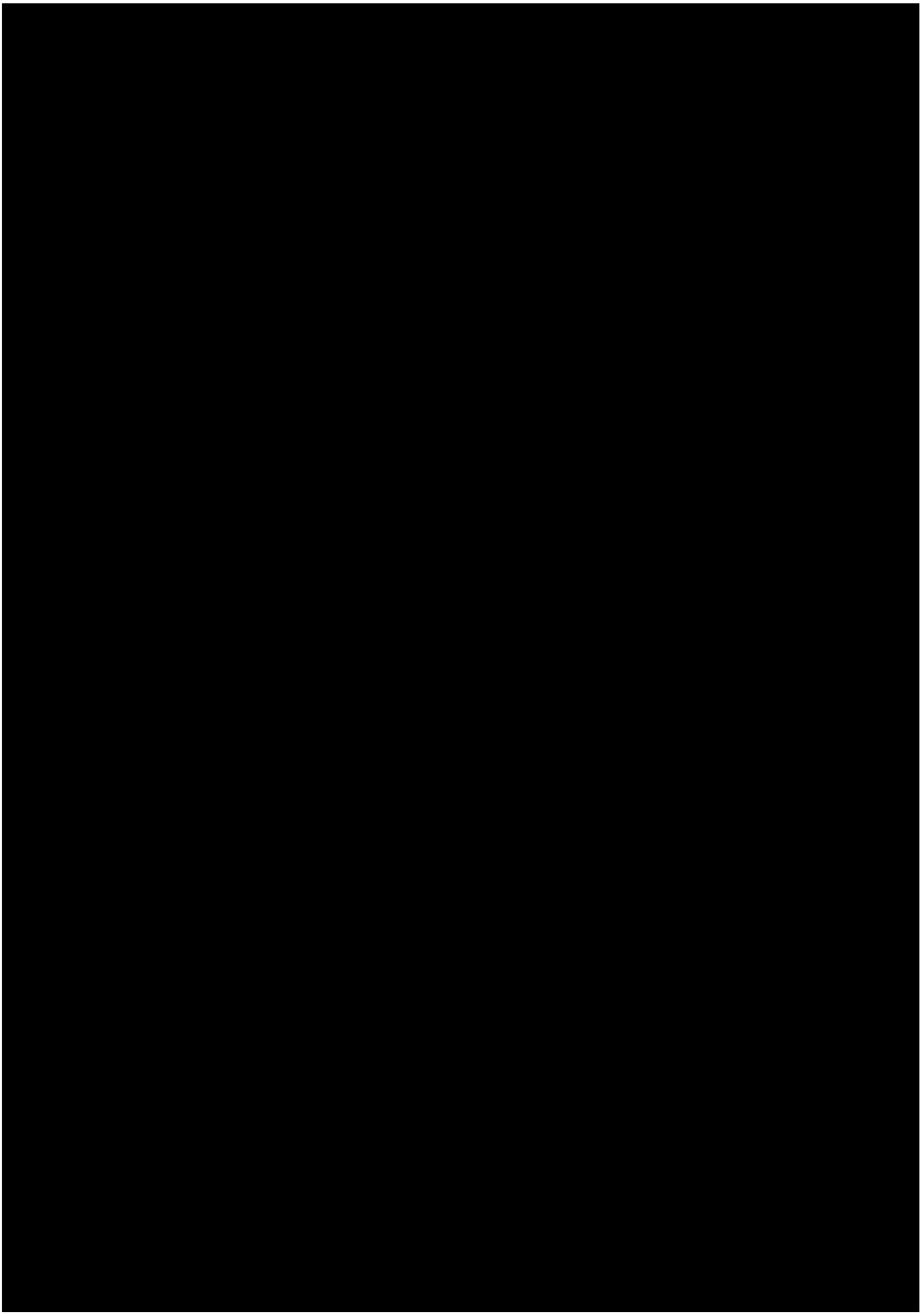
- Bed allocation processes should be reviewed to minimise and standardise the time taken to allocate a bed following bed request. These processes should be standardized.

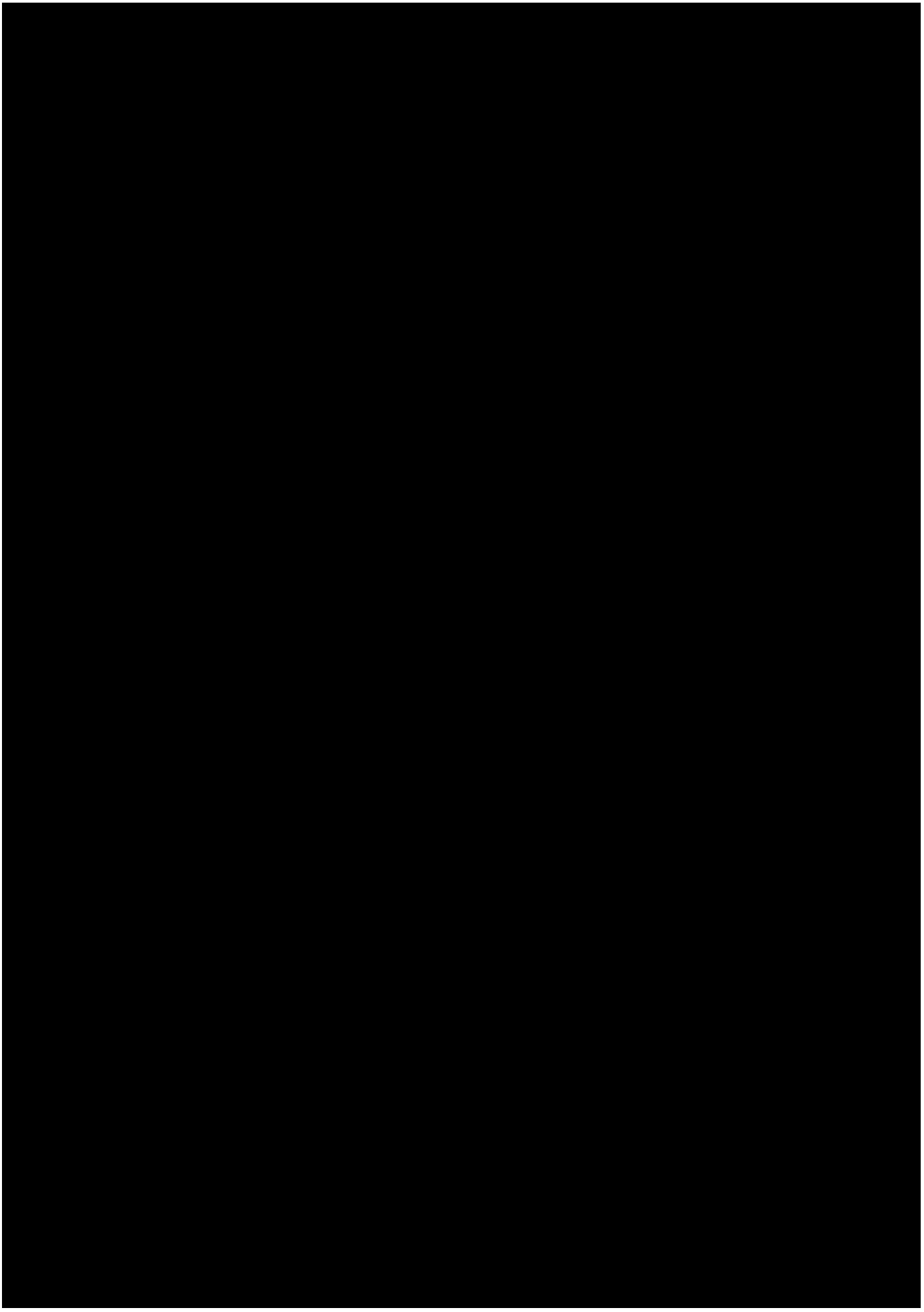
- The practice of allocating a bed that is ready should remain as this is a sound practice. Allocating “virtual” beds creates confusion in the ED and impacts the ability to plan and manage flow within the ED.
- The Access Unit should be reviewed in terms of core business, governance, roles and responsibilities, communication pathways, escalations, reporting and KPI’s. This should take in to account the findings of the current internal Access Unit Review.
- The hospital wide and internal ED escalation processes should be reviewed and defined.
- There was no overarching “helicopter” view of the hospital that linked the ED and inpatient wards together that was readily evident, nor one source of truth for information regards which patient was going to be allocated which bed. A solution should be developed to ensure hospital wide oversight of patient flow.

[redacted]



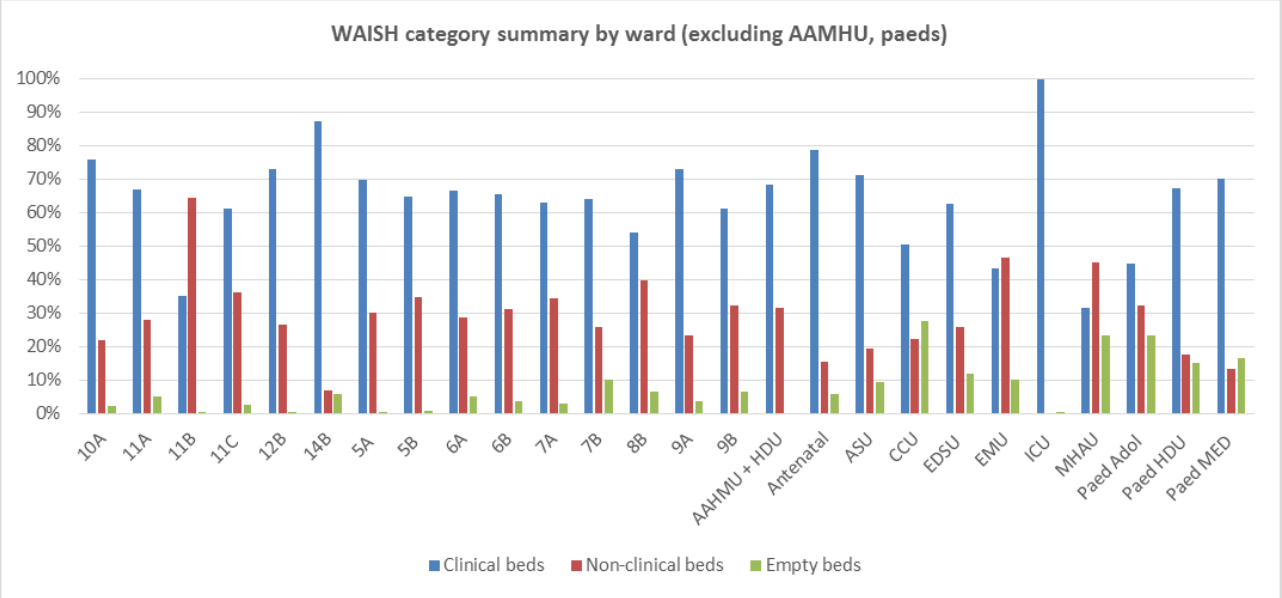






## 6.4. High level summary by ward

The summary occupancy status of wards was assessed using [redacted]




Key findings - analysis

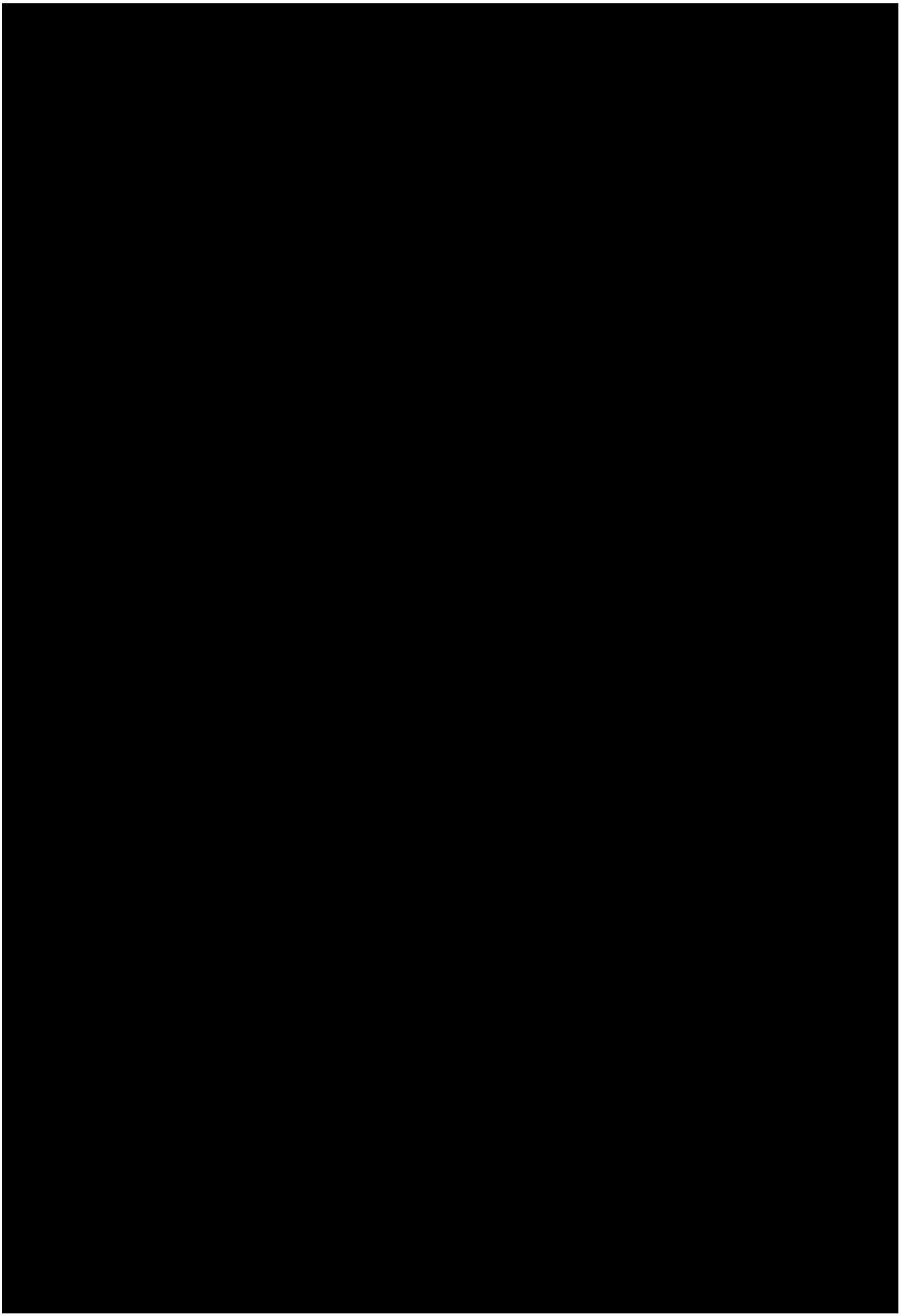
- The data indicated that the top five wards in terms of clinical bed usage were ICU (99.5%), 14B (87.1%), Antenatal (78.7%), 10A (75.9%), and 12B (73.0%).
- The data indicated that the bottom five wards in terms of clinical bed usage were MHAU (31.7%), 11B (35.0%), EMU (43.3%), CCU (50.3%), and 8B (53.8%).

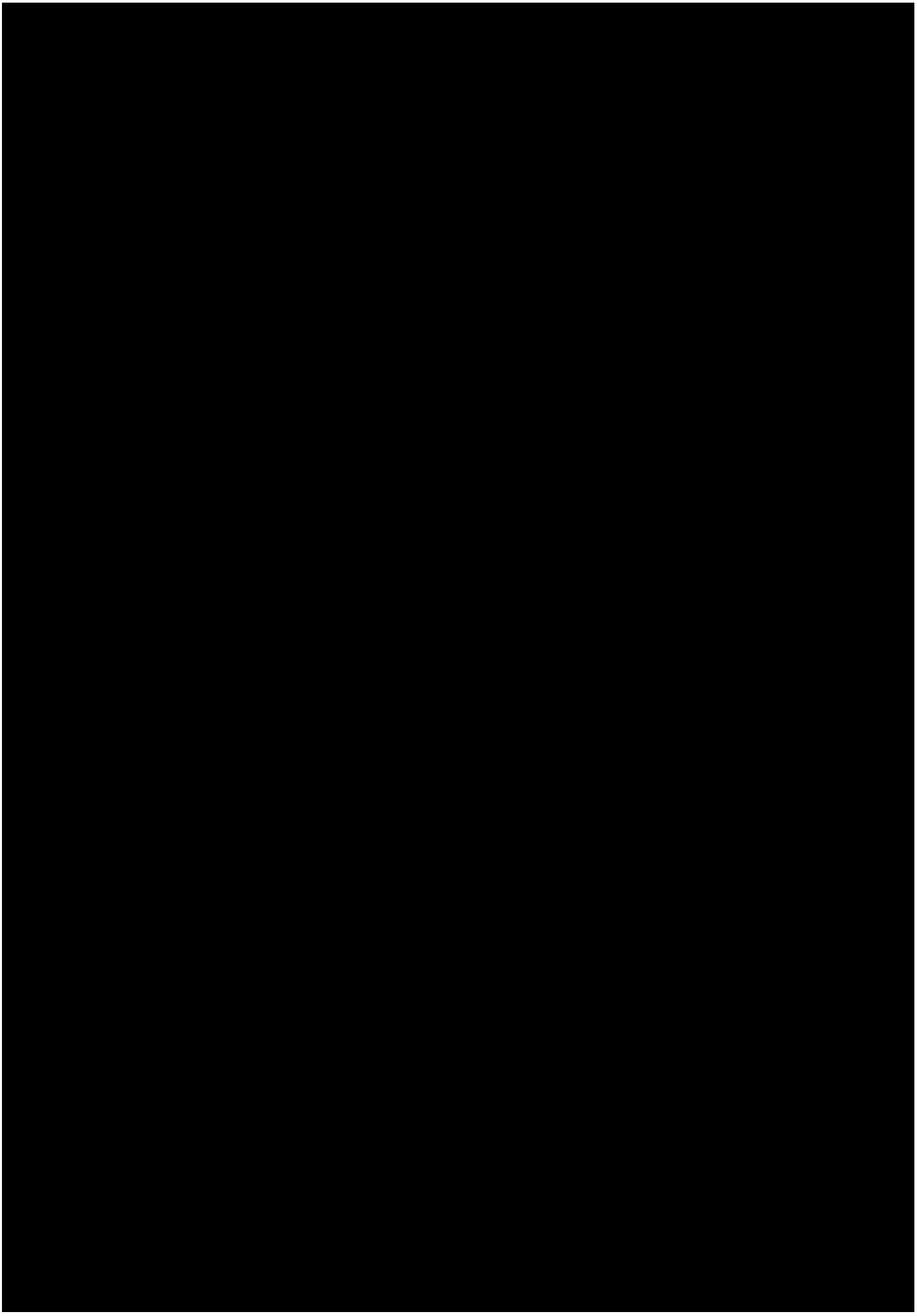
Key findings – observations

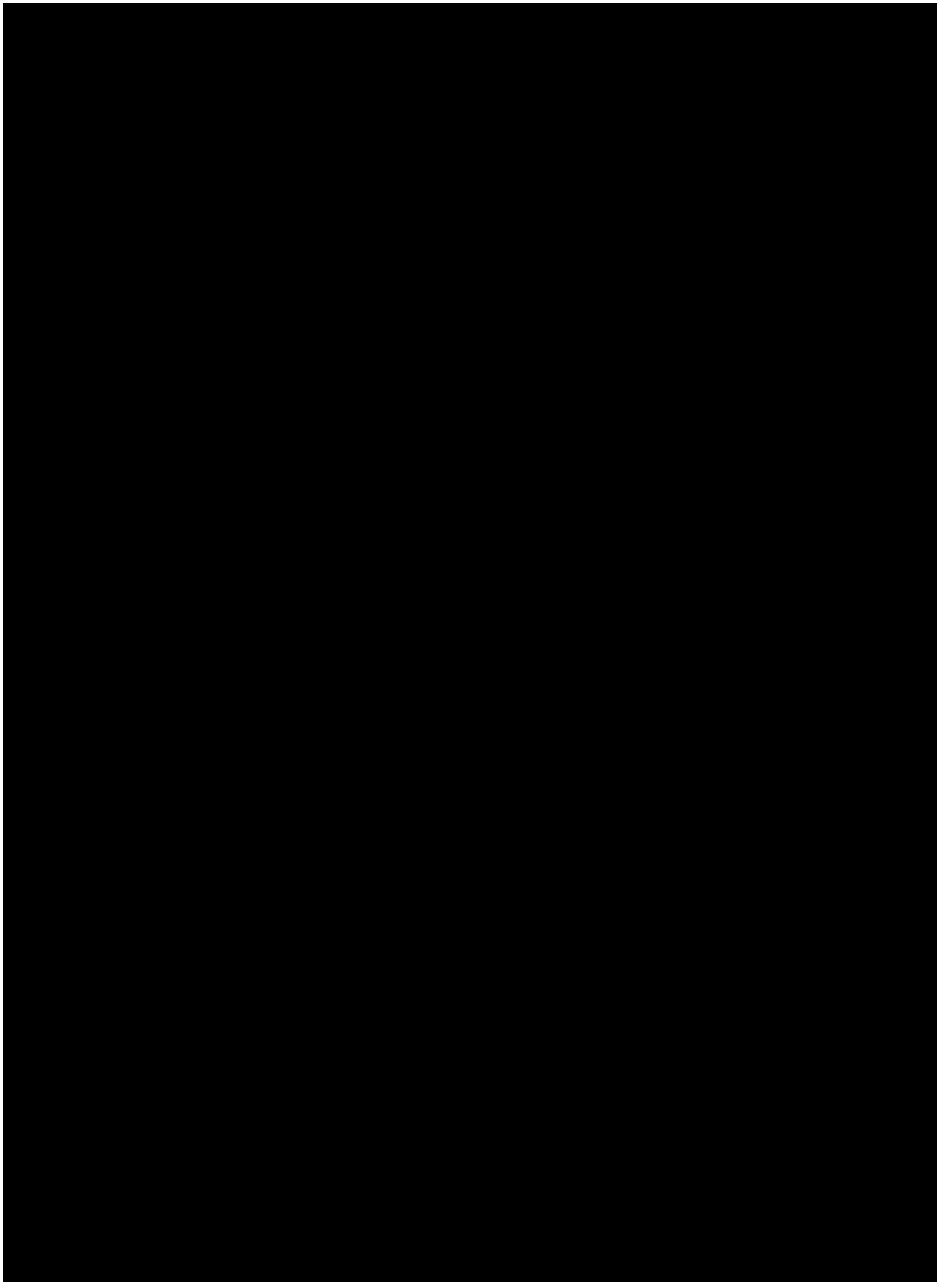
- The processes for patient flow management within the MHAU were not clear. There were multiple methods for logging patients in and out of the MHAU.
- CCU manages their own beds internally. It was observed that the CCU frequently kept an empty bed “just in case” and that the CPEU frequently had a low occupancy.
- Paediatrics manages their own beds internally. It was observed that the Paediatric wards frequently ran at low occupancy.
- EMU beds are managed by the ED, a high number of patients that were refused by the inpatient teams were observed to be admitted to the EMU.
- The spread of empty beds crosses the majority of wards and units in the hospital.

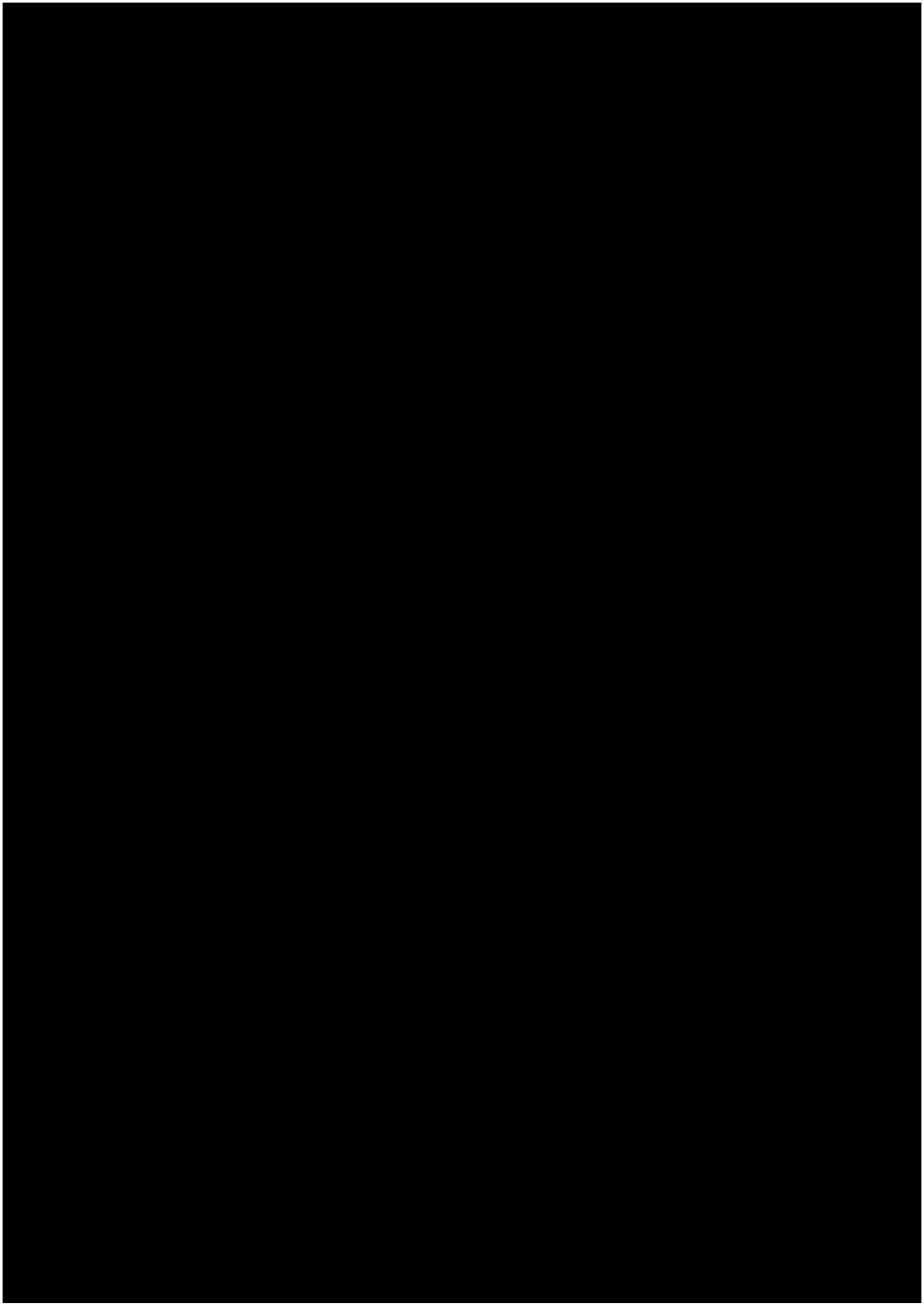
Conclusions

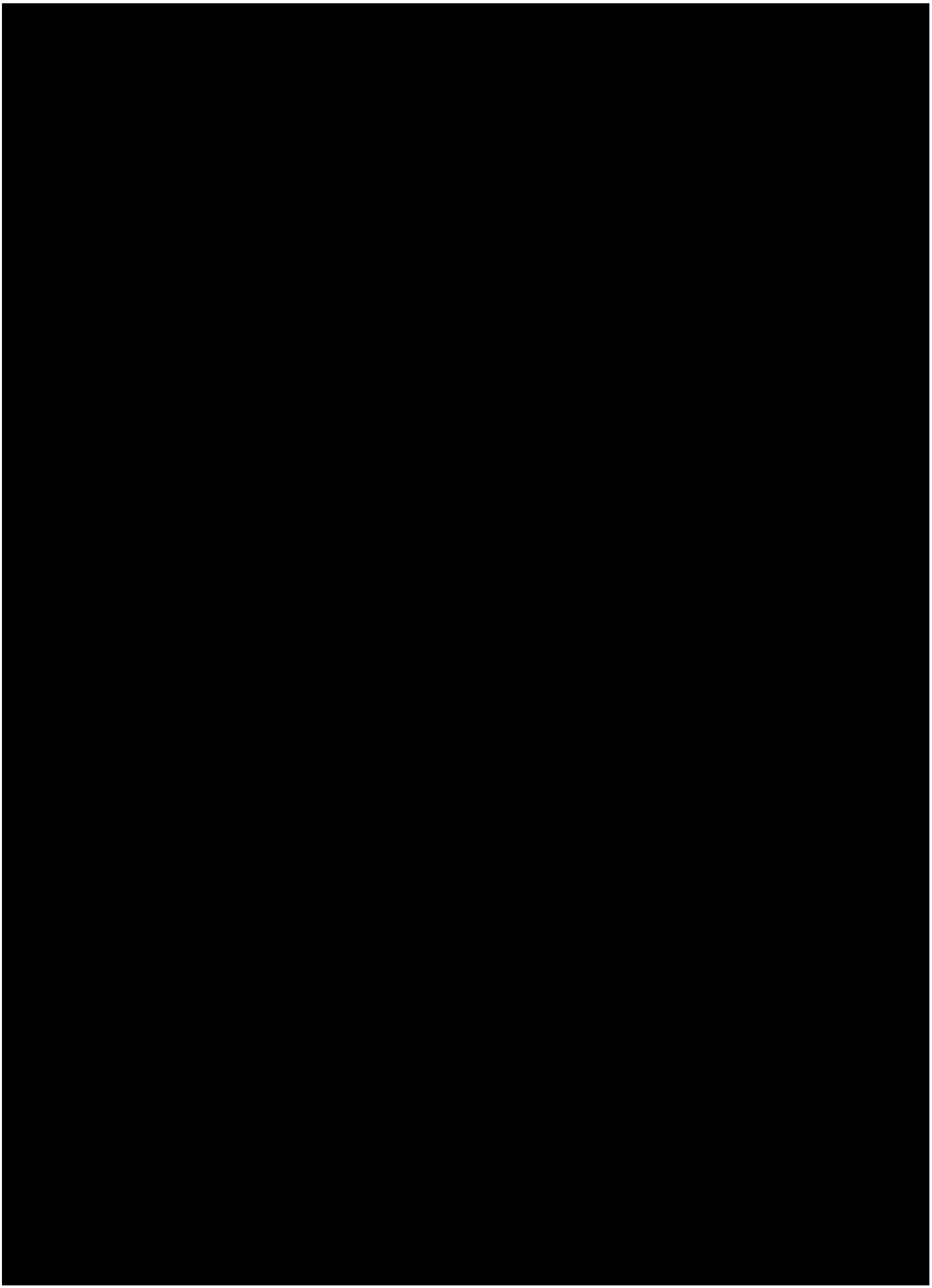
- There is a large opportunity for improving patient flow and the management of beds at an executive, hospital wide and ward level. This is inclusive of all inpatient areas in the hospital. Paediatrics, CCU and Mental Health should be included in this improvement opportunity.











# 8. Stakeholder interviews

## 8.1. Study details

Interviews with over 25 stakeholders were undertaken. These were inclusive of stakeholders within the disciplines and divisions of Imaging, Surgery, Medicine, Critical Care, Mental Health, Drug and Alcohol, Access Unit, Executive team, and Business Intelligence Unit. The interviews were open discussions about current issues relating to patient flow within the individual units and areas and more broadly across the hospital. The issues can be supported by soft, presumed or hard evidence and were themed against categories. The categories were people, process, hospital wide flow and operations, governance, external factors and strategic reform.

The authors are grateful for the time given by all stakeholders and found all staff to be willing and open in the conversations across the board about the challenges with flow within the CHHS.

## 8.2. Key findings from interviews

The general themes from the interviews were found to be related to process, people, strategy and operations.

In the whole the key themes were as follows:

- People:
    - Medical engagement (particularly VMO engagement) is a challenge
- Process:
    - Mental Health flow management of the patient journey and overall flow is unclear
    - The process for escalation is unclear
- Hospital wide flow and operations:
    - There is no one role that has the “helicopter view” of hospital wide operations
    - Siloed approach to managing patient flow across the divisions
    - Patient flow should be managed under one central unit that sits separately from any one division
    - Management of flow and reform happens by committee and consensus or is left to a few key individuals
    - Executives on call are frequently aware of the number of empty beds through the shift reports. There is an inherent level of frustration in knowing that there are empty beds in the hospital and overcrowding in the ED
- Governance:
    - Well-resourced hospital with top heavy management layers, current governance structure is not best fit
- External factors:
    - Flow out of the hospital within ACT Health and to other states is a major challenge, a large number of patients reside in NSW and transfer back to NSW is difficult
    - Queanbeyan Hospital presents a particular challenge in terms of the flow on impact to the CH. Opening hours for the ED are variable

- Calvary Hospital refers a large number of patients to the CH that could otherwise have been treated at the Calvary Hospital
- ACT Health sub-acute and rehab beds are difficult to access
- GP support for and the processes around hospital avoidance are variable
- There is a high level of scrutiny and involvement from ACT Health regards the performance and overall management of the hospital
- The external and community services for Mental Health are not adequate to support the current requirements for patients, particularly the adolescent cohort

- Strategic reform:
  - There are multiple projects being run concurrently within the organisation supported by a high resource load
  - Reform is siloed and there are multiple projects
  - The strategic direction and vision of the hospital is not clear to many of the staff
  - CH has previously been a smaller hospital; challenges are how to transition to a major tertiary hospital and change attitudes and culture to reflect this

Conclusions

- Human resourcing within the CH is largely not an impediment to hospital wide patient flow.
- Patient flow is siloed and it is unclear who has the hospital wide “helicopter” view to operations and flow, this requires defining.
- Reform is siloed, divisional and person dependant and not aligned to a predefined strategy. The method and process for strategic reform across the organisation needs defining and articulating to the executive and rest of hospital.
- The governance structures of the hospital are top heavy with many layers of executive and middle management. This requires review in the long term however should not be a focus in the short term.
- Medical engagement is seen as a significant challenge across the hospital. A dedicated medical engagement strategy is needed.
- Patient flow out of the hospital to sub-acute areas within ACT Health and to NSW sites needs review. The magnitude of the problem should be quantified to support/refute the high level of comments about this issue.
- The flow of Mental Health patients within the CH and within the community needs review.
- The organisation generally has a support and positive view towards the need for reform, the gap is the overarching plan and strategy to achieve this.

# 9. Other information and findings

## 9.1. Project review

Project management controls and alignment to strategy within the organisation are loose. There are over 22 patient flow projects and an unknown amount of other projects being run con-currently within the organisation with many resources. These should be reviewed and rationalised.

## 9.2. Document review

28 documents pertaining to patient flow, projects, previous work and hospital wide structures were reviewed. Some of these documents are confidential, in draft and being reviewed; therefore we have not listed the documents in detail. We are grateful for the transparency of information shared across the CH and ACT Health as this has greatly informed this report.

## 9.3. Hospital Operations findings

The following findings related to hospital operations were not immediately apparent in the quantitative data analysis; however they were observed by the team and discussed during the stakeholder interviews during the diagnostic phase:

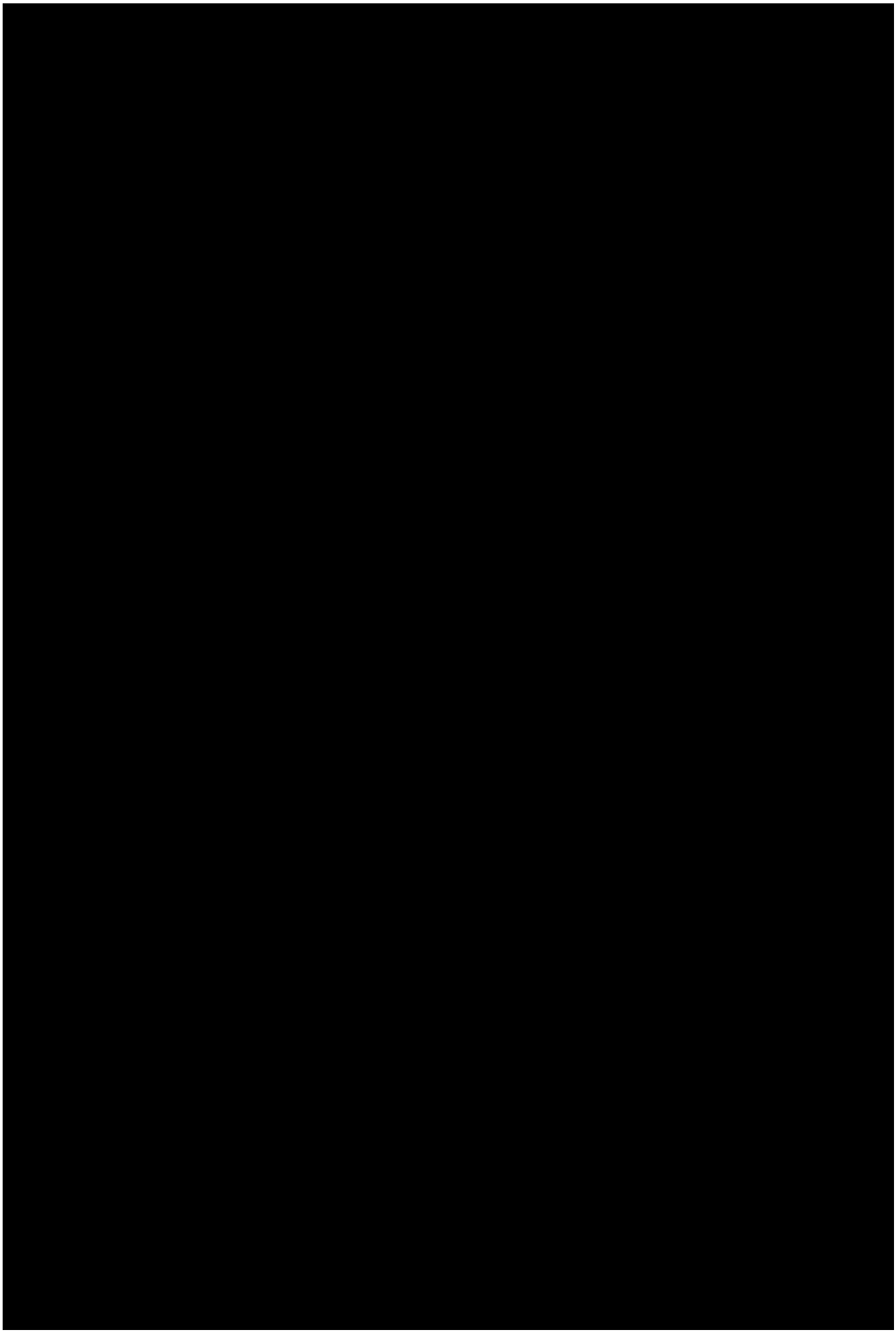
- The key findings and conclusions for hospital operations point to gaps at the executive and management level.
- There is no one role that has the overarching “helicopter view” for day to day and strategic operations management with respect to flow.
- There is great opportunity to improve performance improvement in this area.

## 9.4. Strategy, culture, and leadership findings

The following findings related to strategy, culture, and leadership were not immediately apparent in the quantitative data analysis, however they were observed by the team during the diagnostic phase:

- The key findings and conclusions for strategy, culture and leadership are not a reflection of people but rather of process, governance, accountabilities and expectations.
- The culture of the hospital is overall very positive in terms of team work and shared recognition of the need for change.
- The plan for how change will be enabled, effected and sustained is fractured and unclear. This is a relatively quick win for the organisation in terms of a starting point for engagement and outcome.
- There is a gap in how strategy is developed and deployed across the organisation in terms of flow and performance improvement.
- Bringing the executive together and breaking down the siloed approach to how and which solutions and projects are implemented will bring a significant improvement and a resource credit to the implementation arm of flow success.
- The leadership of the organisation is viewed as very positive but siloed and fractured. This will likely entail a review and possible restructure of the current governance structure in the long term however will not yield the biggest improvements in performance at this point.

[redacted]



# Briefing note for Canberra Hospital executives

HEALTHCARE REFORM CONSULTING

## High level diagnostic review of NEAT performance by Healthcare Reform Consulting

### 1. Background

Access to emergency services across Australia is under increasing scrutiny and review. Increased presentations and emergency demand heralds a need to improve service delivery and meet consumer expectation. ACT Health have commissioned HRC to undertake a body of work to review processes within the Canberra Hospital that will improve the flow of patients from the ED to the ward, this is inclusive of bed management and back of house strategies. HRC recommends [redacted]

### 2. Review objective

The objective of review is to:

- [redacted]
- Provide recommendations for improvement.
- Provide implementation plan for improvement.

### 3. Approach and timings

[redacted]

### 4. Learning and engagement opportunities

Unlike conventional consulting reviews HRC will provide [redacted]

- [redacted]

## 5. Support to key studies

CH will need to provide staffing support to [redacted] Participation in these studies will provide significant learning opportunities to those involved. [redacted]

- [redacted]
- [redacted]

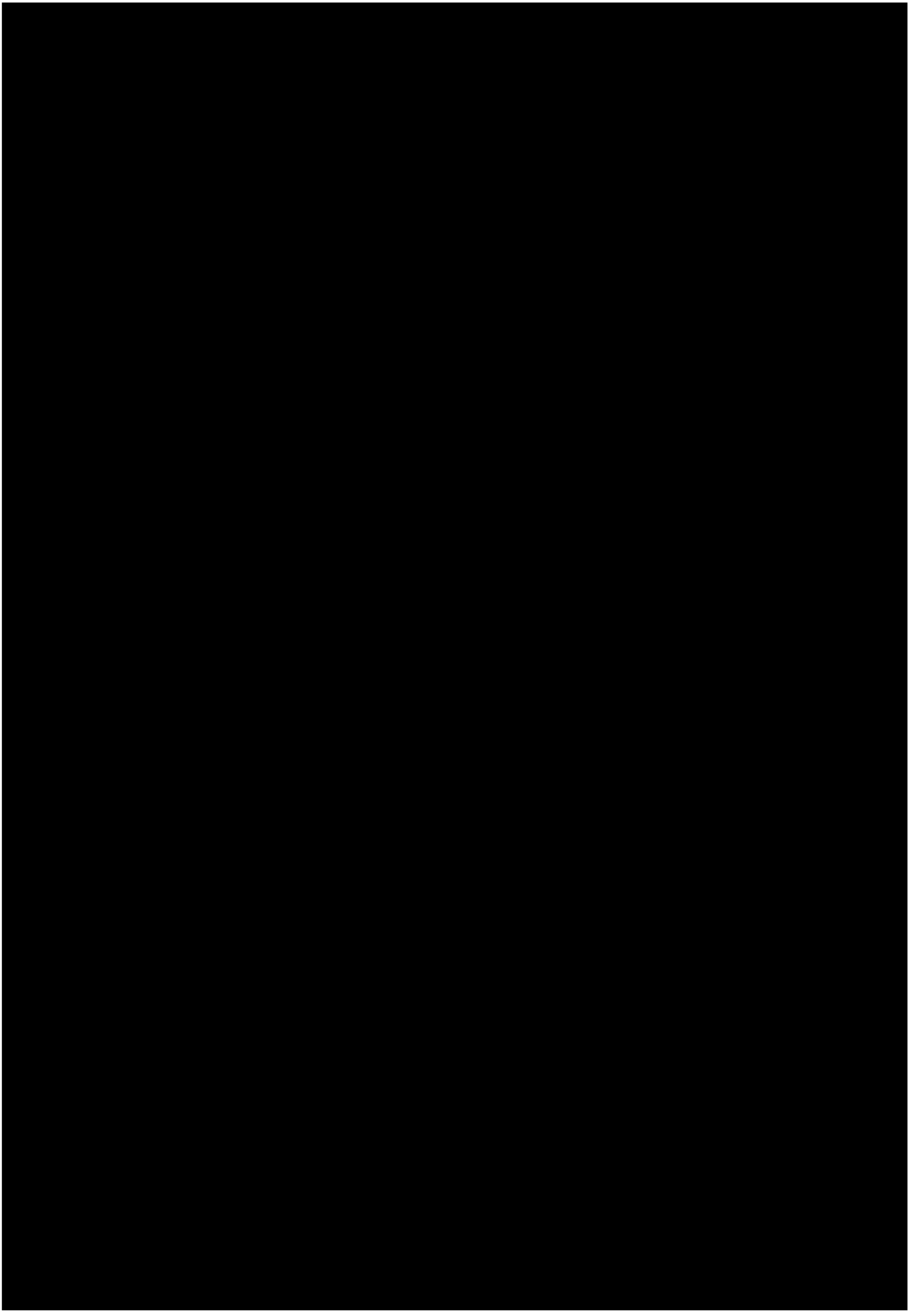
[redacted]

## 6. About HRC

Healthcare Reform Consulting (HRC) was established in 2011 by Kate Brockman and Mark Walmsley to continue improving Australia's access to emergency care and effective hospital wide patient flow. We have a unique approach to supporting the transformational change program that underpins high reliability organisations. With a strong clinical background we have a complete understanding of hospital flows, operational processes and delivery of safe and quality care.

The consultant team is:

- **Kate Brockman.** Director HRC and program lead for Royal Perth Hospitals inaugural 2008 program that gave rise to WA's Four Hour Rule, and Australia's NEAT program. Kate has provided extensive service to WA, NSW, Tasmania, and private hospitals via HRC since 2011. Kate is a critical care nurse by background.
- **Mark Walmsley.** Senior Manager and lead analyst for HRC. Mark developed the key studies and provides analytical and benchmarking support to hospital sites. Mark is a military test pilot and aerospace engineer by background.
- **Benjamin Uprichard.** Manager for HRC. Benjamin has experience in reform activities across patient flow and ED access to care with specific regard to the acute care setting. Benjamin is a critical care nurse by background.



CANBERRA HOSPITAL AND HEALTH SERVICES

HEALTHCARE REFORM CONSULTING

# HRC Proposal P04. High level diagnostic for The Canberra Hospital

## KAMAREJA Pty Ltd trading as Healthcare Reform Consulting (HRC)

**Table of Contents**

# 1. Context

## 1.1. Background

The Canberra Hospital (CH) is the ACT's public hospital located in Garran ACT. The hospital has approximately 672 beds and caters to a population of greater than 500,000 people across ACT. CH is the major teaching hospital for the Australian National University Medical School. Canberra Hospital provides a comprehensive level of tertiary services and is the major referral centre for the state.

The Emergency Department is currently seeing between 190-207 patients per day 24/7 with an overall presentation rate of 76,000+ presentations every year. The emergency department has approximately 55 beds.

There is an opportunity to improve the waiting times for patients to be seen via the emergency department. The figures for 2013 outline that 54% of patients were seen, treated and either admitted or discharged within 4 hours. This is significantly below that of Australian peer hospitals.

HRC was requested by ACT Health to provide a proposal to undertake a diagnostic activity at CH leading to a report on current state with recommendations for improvement and an implementation plan to follow.

## 1.2. Document purpose

The purpose of this document is help ACT Health and Canberra Hospital executives clarify the scope for the proposed HRC engagement. To achieve this outcome this document proposes to:

- Summarise our understanding of your requirements.
- Outline the proposed approach to service delivery.
- Summarise client provide resource requirements.
- Summarise HRC's proposed terms and conditions.

# 2. Requirements and scope

## 2.1. Our understanding of your requirement

[redacted]

- Provide recommendations for improvement.
- Provide implementation plan for improvement.

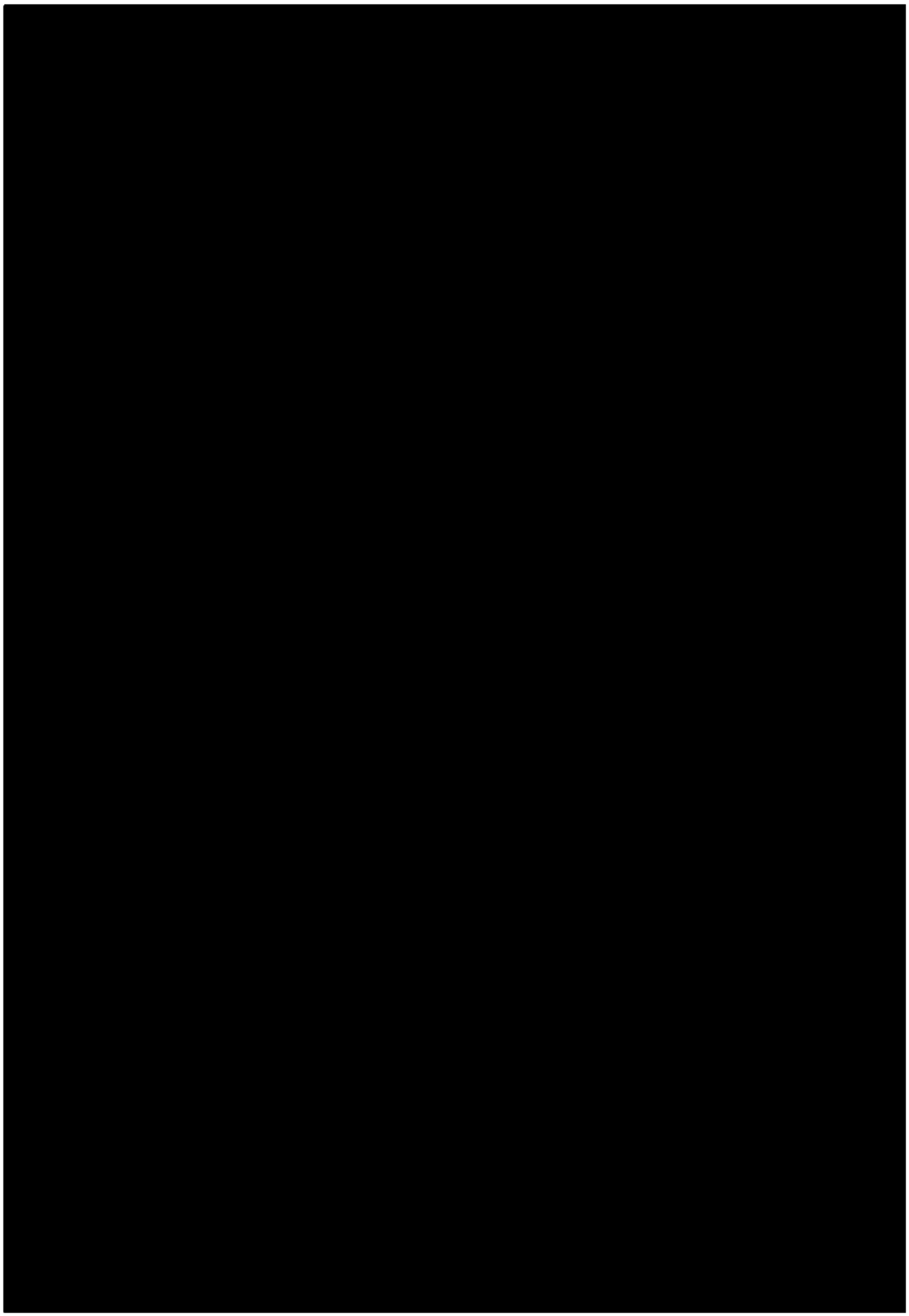
## 2.2. Engagement scope

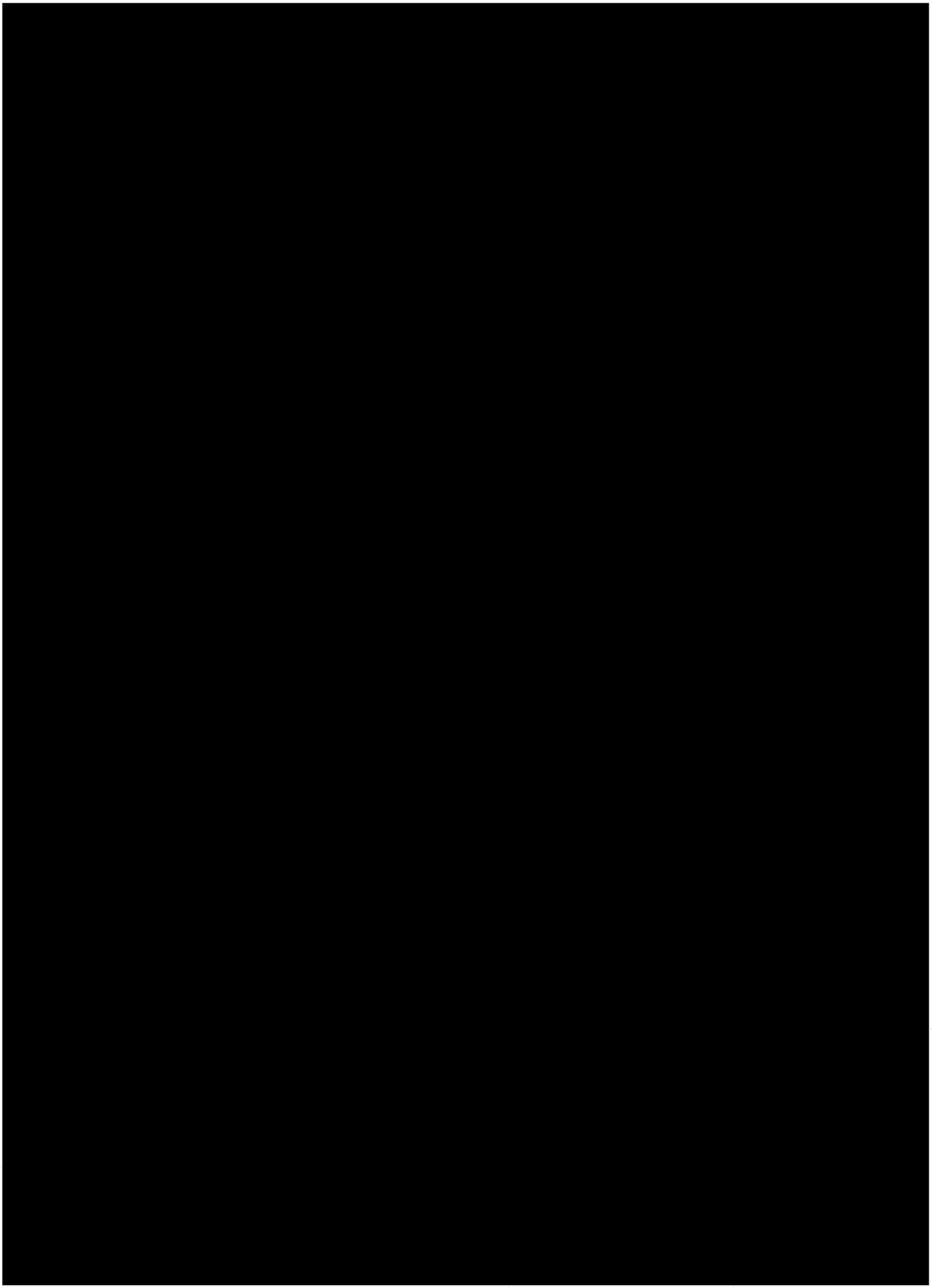
The scope for this diagnostic activity is shown below:

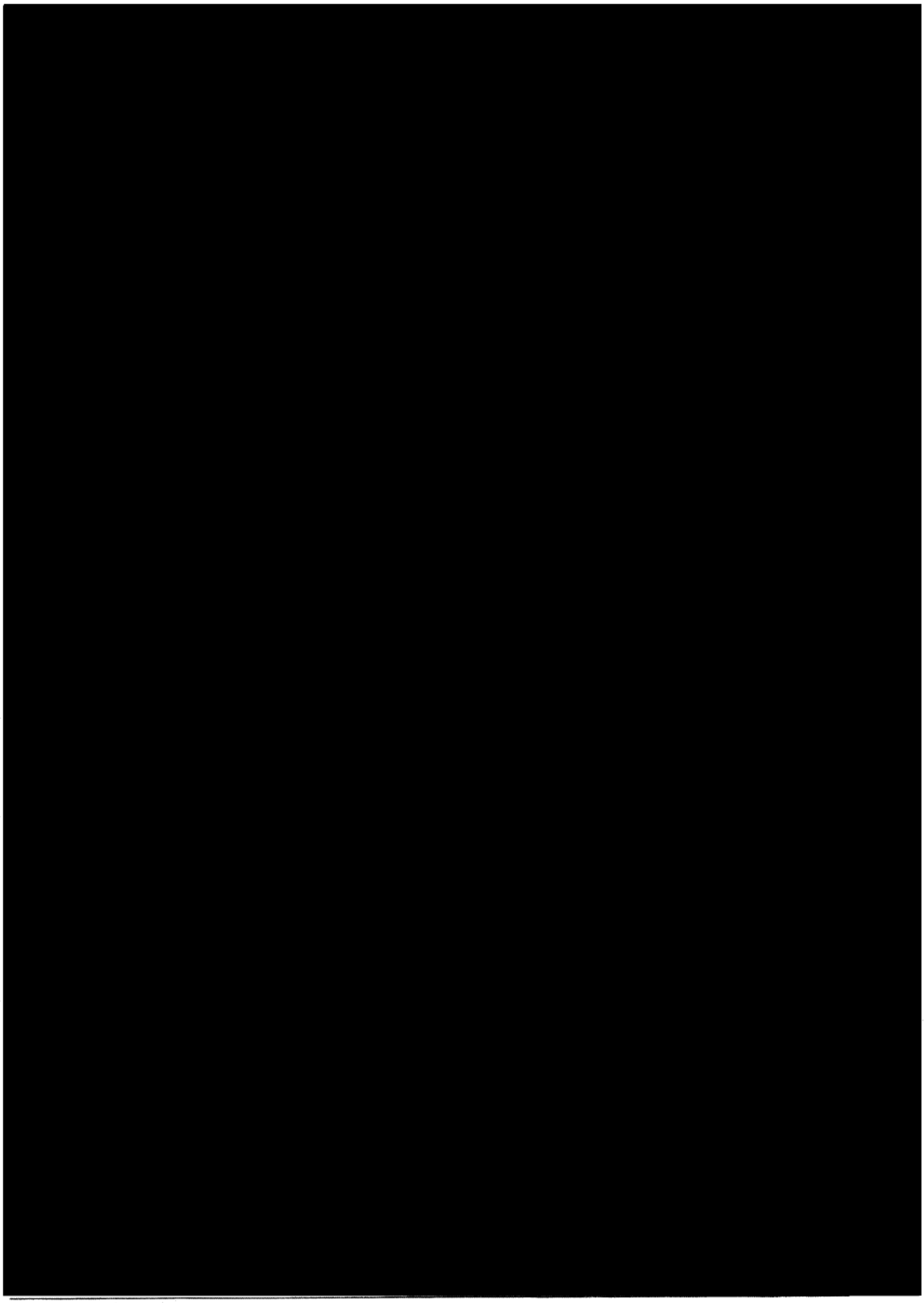
- Areas to review:
    - Emergency department
    - Patient flow management and ED interface
    - Ward length of stay management
- Methods of review:
    - Process (manual collection)
    - Activity levels

Out of scope for this diagnostic activity are:

- Areas to review:
    - Out-patients, elective surgery, theatres, and imaging
    - Allied health services, and ACT ambulance service
    - Staffing levels across the hospital
- Method of review:
    - Budget and facilities review
    - Voice of patient and voice of staff







[redacted]

## 5. Service delivery details

### 5.1. Study schedule

Subject to contract award prior to Friday 3rd July 2015, HRC can commit to the following delivery schedule.

| Date | Activity | Comments |
|---|---|---|
| 23-24 July 2015 | [redacted] | |
| 6-7 August 2015 | | |
| 19-25 August 2015 | | |
| 26-28 August 2015 | | |
| 31 August - 4 September 2015 | | |
| 7-11 September 2015 | | |
| 14-15 September 2015 | | |
| 16-28 September | | |
| 28 September – 9 October 2015 | | |
| 12-16 October 2015 | | |
| 19 October 2015 | | |

HRC understands the challenges of scheduling executives in a busy organisation and can be flexible with the above dates. However, delays in the completion of early milestones will likely result in a delay to subsequent milestones of at least the same duration.

### 5.2. Consultant team

The consultant team members are as follows:

[1] NEAT briefing for executives is a major engagement deliverable and attendance by key stakeholder group is strongly recommended.

- Kate Brockman, Director HRC, based in Perth
- Ben Uprichard, Senior Manager HRC, based in Sydney
- Mark Walmsley, Senior Manager HRC, based in Perth

[redacted]

## 7. Why Healthcare Reform Consulting?

### 7.1. Four Hour Rule / NEAT originals

Kate Brockman and Mark Walmsley have been involved in the NEAT program since its April 2008 inception as the Royal Perth Hospital Unplanned Patient Journey (UPJ) program. 5 years and 6 months later Kate and Mark have been continuously involved in the UPJ, then Four Hour Rule, and then NEAT at St Vincent's and NSW Health.

During that time Kate has reviewed over 50 hospitals across Australia in WA, SA, NSW, Queensland and Victoria. This has given Kate the unique ability to quickly assess the challenges a site faces, the solutions needed for rapid improvement, as well as the ability to work with the executive to bring about the transformation.

Mark has been actively supporting Kate during this time and has provided detailed analysis of the three key studies at more than 40 sites across Australia. Mark has co-hosted training sessions and workshops on the national stage with Kate.

No other consulting firm has the depth of knowledge and experience in the NEAT program that HRC possesses. This is evidenced by our extensive track record in presenting at national conferences as summarised below.

- 2008:
    - Team Based Care and The Unplanned Admission Patient Journey. Australasian College of Emergency Medicine Summit, The Vines Perth. With Arenson, K.
- 2009:
    - Clinical Service Redesign of the Unplanned Patient Journey. 5th Australasian Redesign Health Care Summit, Brisbane. With Arenson, K., Girling, S., and Daly, F.
- 2010:
    - Four Hour Rule Implementation. Orthopaedic Nurses Association Conference, Perth.

- 2011:
    - Implementing 4 Hour Rule. 7th Australasian Re-designing Health Care Summit, Melbourne. Brockman, K., and Daly, F..
    - Aligning Quality and Cost, Criterion Conferences, Melbourne.
    - Improving the Geriatric Journey through 4 Hour Rule Implementation, Royal Perth Hospital – a case study. Australian/New Zealand Conference. With Daly, F., Kilshaw, L., and Seymour, H.
- 2012:
    - Achieving the NEAT, the WA Experience. Logan Hospital.
    - Whole of Hospital Redesign to Achieve the NEAT. John Hunter Hospital.
    - Whole of Hospital Redesign to Achieve the NEAT. Aligning Quality and Cost Conference.
- 2013:
    - Executive Advisor to NSW Whole of Hospital Program.
    - Timely Access to Emergency Departments, Workshop and Speaker, Criterion Conferences.
    - 8th Annual Critical Care Conference in the Vineyards, Hunter New England Health Professionals.
    - Winter Access Planning Symposium, Victoria Department of Health.
    - Aligning Safety and Quality with Flow, Criterion Conferences.
- 2014:
    - Advisor to NSW Whole of Hospital Program.
    - Lead consultant for Health Tasmania Access to Emergency Care and Patient Flow reform work.
    - Advising private hospitals in NSW to improve NEAT performance.
- 2015 (year to date):
    - Continued support to Health Tasmania as lead consultant on to Emergency Care and Patient Flow reform work.
    - Lead consultant to a private hospital in NSW to improve ED performance.

### 7.2. Key relationships

Kate has established strong relationships with key staff across Australia including in Western Australia, Queensland, New South Wales, Tasmania and Victoria, at a ministry, district and site level. Having developed these relationships, HRC is well placed to leverage them during follow-on phases of the CH program.

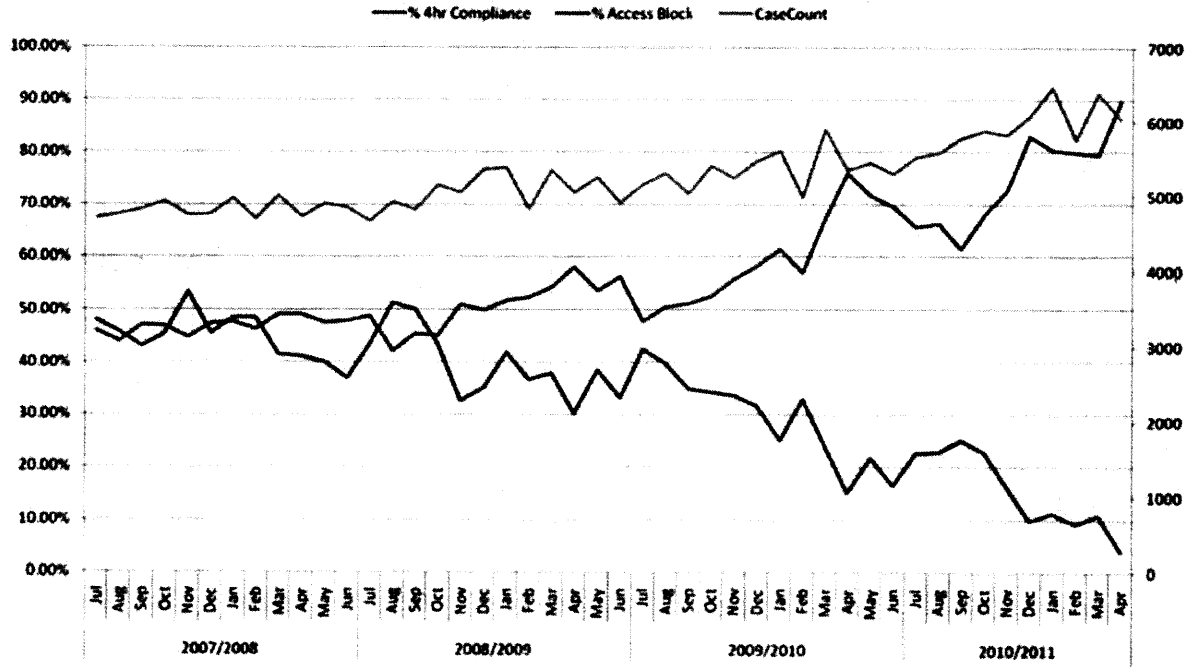
### 7.3. Site intimacy and knowledge

Having worked at or advised at more than 50+ hospital sites across Australia, Kate is uniquely positioned to leverage her understanding of their site-specific challenges and the investigations and solutions required to improve their emergency access performance.

Kate is uniquely positioned to bring this expertise to Canberra so as to bring about a rapid improvement in ED performance.

### 7.4. Proven record

Lastly, HRC has a proven record in delivering significant improvements in the NEAT program. In WA the UPJ/Four Hour Rule program took nearly 18 months to realise an 8% improvement in NEAT performance at Royal Perth Hospital as shown below.




In contrast the 50+ sites in NSW WOHP have achieved this figure in only 8 months with a smaller team than was available at Royal Perth Hospital alone.

## 8. Next steps

HRC would welcome the opportunity to answer any questions or provide any additional information in relation to this proposal. Alternatively, CH can accept the proposal and enter into contract as per the next section.

## 9. Contract/proposal acceptance

To accept this proposal and enter into contract an authorised executive representative of CH must sign below noting details as appropriate. A CH witness must also sign and note details as appropriate. The signed proposal can be scanned to PDF and sent to Kate Brockman for signing and completing the contract process.

ACT/CH executive signature:

ACT/CH witness signature:

IAN THOMPSON

ACT/CH executive name:

NABELLE GRIFFITHS

ACT/CH witness name:

A/g DIRECTOR-GENERAL

ACT/CH executive position:

PATIENT SAFETY

ACT/CH witness position:

3/7/15

Date ACT/CH executive signed:

3/7/15

Date ACT/CH witness signed:

Kate Brockman signature:

Director KAMAREJA Pty Ltd trading as Healthcare Reform Consulting

Kate Brockman position:

Date Kate Brockman signed:

## 9. Contract/proposal acceptance

To accept this proposal and enter into contract an authorised executive representative of CH must sign below noting details as appropriate. A CH witness must also sign and note details as appropriate. The signed proposal can be scanned to PDF and sent to Kate Brockman for signing and completing the contract process.

ACT/CH executive signature:

ACT/CH witness signature:

IAN THOMPSON

ACT/CH executive name:

NABEELA GRIFFITHS

ACT/CH witness name:

A/g DIRECTOR-GENERAL

ACT/CH executive position:

PATIENT SAFETY OFFICER

ACT/CH witness position:

3/11/15

Date ACT/CH executive signed:

3/11/15

Date ACT/CH witness signed:

Kate Brockman signature:

Director KAMAREJA Pty Ltd trading as Healthcare Reform Consulting

Kate Brockman position:

7/7/2015

Date Kate Brockman signed: