A Needs Assessment for an Inclusion Health Service at Beaumont Hospital

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Introduction & Rationale

The burden of chronic illness among people experiencing homelessness (PEH) combined with the the inefficient utilisation of healthcare services by this marginalised population puts a significant financial strain on hospitals across Dublin.

Beaumont Hospital (BH) lacks medical and social initiatives aimed at improving patient outcomes for PEH and decreasing the burden of homeless healthcare on hospital resources.

Aim: To identify PEH attending Beaumont Hospital Emergency and outpatient departments within a 5-week period exploring their utilisation of hospital services and there current and chronic illness burden retrospectively over a 6 -month period.

Goal: To conduct a needs assessment for the development of a social inclusion healthcare initiative at Beaumont Hospital.

Methods

Patients identified as homeless (ED & OPD) June 4th - July 5th (N=22)

Patient data was collected on-site: PIPE & NIMIS

Retrospective analysis of patient's data was conducted: January 1st to July 5th

Patient data collated excel worksheet. Statistical analysis conducted using Jamovi software (1)

Patient Data Collected

- Age & Sex
- Country of Origin/Nationality
- Admissions in preceding 6 months
- Total bed days
- No. of ED attendances
- Discharge diagnoses and chronic illnesses
- History/Current illicit substance use/ IVDU
- History/Current alcohol abuse
- No. of hospital attendances documented on NIMIS
- No. of OPD appointments
- No. of OPD missed (DNAs)

Patients were identified and registered on medical databases as homeless or having "no fixed abode" by hospital clinicians.

Patients were further identified on hospital databases utilising their unique identifier medical record number.

Key Findings

Medical Comorbidity/ Chronic Illness among PEH	% of population
Mental Health illness Of whom had suicidal ideation	32.8% (7) 23% (5)
Respiratory illness (COPD, asthma)	27% (6)
Alcohol related illness (liver disease, dementia, neuropathy, seizures)	27% (6)
Blood Borne Viruses (HAV, HCV, HIV)	27% (6)
Malignancy	18% (4)
Cardiovascular disease (Hypertension, ischemic heart disease, cerebrovascular disease)	27% (6)
Diabetes	10% (2)
Illicit substance users Of whom were IVDU users	37% (8) 18% (4)

Patient Demographics:

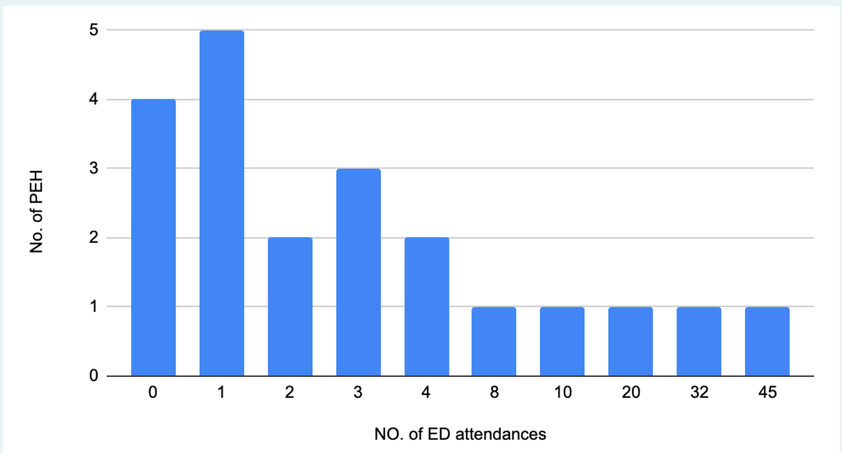
Sex & Age Distribution

	Mean Age	Median	IQR	SD	Min Vs Max
Total: N = 22	46.5	49	19.3	11.6	25 Vs 66
Male: N = 16	46.2	49	20.3	12.6	25 Vs 66
Female: N = 6	47.3	46.0	16.0	19.6 3	36 Vs 58

Homeless patient's country of origin

- Ireland: N = 16 (72.7%)
- Nigeria: N = 1 (4.5%)
- Ukraine: N = 1 (4.5%)
- Romania: N = 1 (4.5%)
- Unknown: N = 2 (9.1%)

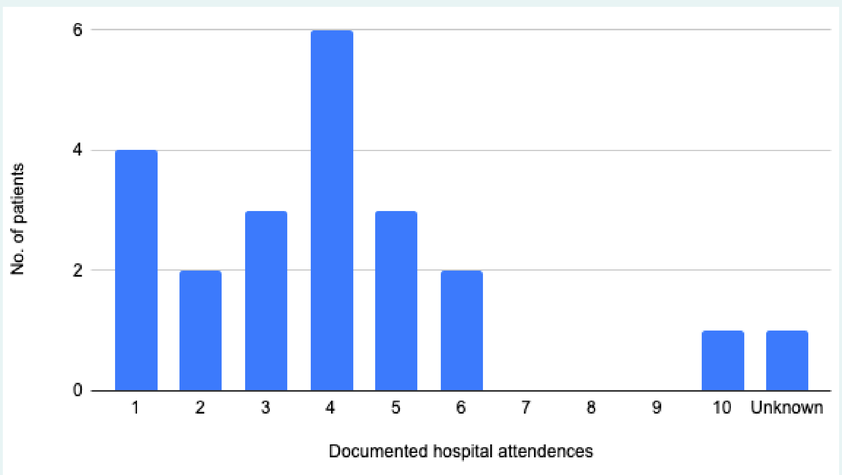
Number of Emergency Department Attendances



Between January 1st and July 5th, a total of 16 patients attended BH ED.

1. Total ED attendances: 134
2. The most frequent ED attendee: 46 presentations in 6 months

Healthcare utilisation outside of Beaumont Hospital



Using NIMIS database, PEH who have previously presented to hospitals other than BH were identified. This search was conducted as far back as the first documented data point on NIMIS database for each patient.

Patient flow/bed days

Total Number of Bed days	419 days
Number of PEH with overnight stay	16
Average length of stay per PEH	26.2 days (SD: 23.0)
Minimum length of stay	1
Maximum length of stay	70

Outpatient Department - Did Not Attend (OPD DNAs)

N. of patients who missed OPDs	Mean no. of OPD missed	Max OPD missed per PEH	Total missed
8	2.25 (SD: 1.29)	4	16

17/22 had outpatient appointments scheduled in the period between the 1st of January and the 5th of July.

1. Outpatient specialties documented; orthopaedics, endocrinology, infectious diseases, gastroenterology, cardiology, urology, Ear Nose & Throat, and neurosurgery.
2. 8/17 were recorded to have missed at least one appointment.

Hospital attendances were documented in the following hospitals:

- Mater Misericordiae University Hospital
- Tallaght University Hospital
- St. James' Hospital
- CHI at Temple Street
- Royal Victoria Eye & Ear Hospital
- Incorporated Orthopaedic Hospital Clontarf
- St. Luke's General Hospital Carlow Kilkenny
- Rotunda Maternity Hospital
- Connolly Hospital Blanchardstown
- Our Lady of Lourdes Hospital Drogheda
- Cappagh National Orthopaedic Hospital
- Wexford General Hospital
- University Hospital Waterford
- Naas General Hospital
- St. Columcille's Hospital Loughlinstown

Conclusion

- A multimorbid and socially complex group of patients in BH was identified during a short five week period of data collection.
- An average ED presentation costs approximately €464.36 according to research in similar tertiary Dublin hospitals which amounts to a cost of €62,688.60 over 6 months for this 22 patient cohort (2).
- Given the extent of chronic healthcare needs of PEH in BH, and the previous success of inclusion health teams in Dublin hospitals with similar patient demographics (3), an inclusion health team at BH is likely to improve both patient outcome, in addition to improving hospital resources and cost saving measures.

Limitations

- The number of patients reported by clinicians as homeless during this timeframe is likely to underrepresent the accurate sum of patients experiencing homelessness during this data collection period at BH as we relied on clinicians to document this information on PIPE system for each patient.
- Healthcare utilisation outside of BH is likely to under-represent multiple hospital presentations by this cohort of patients as it was dependent on the advent of recorded patient imaging studies, and not on other routine investigations and hospital presentations such as those documented on PIPE.

REFERENCES

1. The jamovi project (2024). *jamovi*. (Version 2.6) [Computer Software]. Retrieved from https://www.jamovi.org.
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