Modernising health and care services in the Teignmouth and Dawlish areas

1. Introduction

One of the aims of the CCG is to integrate services in order to make improvements for the most vulnerable people in our communities – those needing frequent and multiple services to help and support them. The drive is for quality services that are properly joined up so that vulnerable people do not have to struggle to get the support they need or risk falling through the gaps between different organisations and services. The one-team approach is at the core of the care the CCG wants to make available.

This paper sets the clinical evidence for the provision of community-based intermediate/ rehabilitation care in people's own homes rather than a ward based model of rehabilitation.

2. Summary

- NHS England South West Clinical Senate stated in their 2019 review of the model of care "It seems very clear that they do not need the 12 rehabilitation beds that were proposed for Teignmouth hospital in 2015, but which have never been implemented. The impact of the Integrated Care Team has reduced the need for beds despite the demographic and demand." See Section 3.

- Bed based care can have detrimental effects in older people and we should do everything we can to ensure as many people as possible are cared for safely in their own home to reduce the proven negative impacts of bed-based care. See Section 4.

- Home based care has proven better outcomes than bed-based care according to a number of measures including emergency department attendance and readmission rates and we should do everything we can to ensure that patients are able to benefit from these improved outcomes achieved by providing care in their own homes. See Section 4.

- In 2019/20 the Coastal locality had the highest rate across South Devon and Torbay of referrals to Intermediate care (33/1000 population), the lowest rate of ED attendances (37/1000 population aged over 65 years), the lowest rate for emergency bed days (448.5 per 1,000 aged over 70 years) and highest for bed days in a patient's own home (111.43 per 1,000 aged over 70 years) and the lowest rate for emergency readmissions (6.4 per 1,000 aged over 65 years . See Section 5.

- The Coastal EICT has the highest % of patients staying in their own homes after receiving an intermediate care service as a % of total discharges (80%) and had the lowest % of patients being admitted to an acute hospital after receiving an intermediate care service as a % of total discharges (12.4%). See Section 6.

- The total cost of running the Enhanced Intermediate Care team along with beds purchased as required from the independent sector and the cost of running a 12 bedded rehabilitation ward are comparable. See Section 7.

- The Enhanced Intermediate Care team in Coastal cared for 1,217 people (both in care homes and in their own home) in the year 2019/20. A 12 bedded rehabilitation ward would be able to care for approximately 232 people in a year. See Section 7.

- The community based enhanced intermediate care team is able to care for 5 times as many people as a 12 bedded rehabilitation ward for approximately the same level of investment. The team is also to able to flex in terms of staff resource to meet increased demand and capacity is not limited by the number of beds available. See Section 7.

3. NHS England South West Clinical Senate

The NHS England South West Clinical Senate, a panel of independent expert clinicians, reviewed and supported the model of care that was proposed and subsequently adopted across South Devon and Torbay in 2016. The review panel comprised 12 members representing broad and relevant expertise from across the South West and included a GP, a Director of Public Health, a Director of Adult Social Services, a Consultant Geriatrician, a Director of Quality, Safety and Governance, a Clinical Psychiatrist along with representatives from Healthwatch, Local Pharmacy Committee, Allied Health professionals and South West Ambulance Trust.

Members of the original 2016 clinical panel were subsequently convened in 2019 to undertake a further review of model of care in Teignmouth and Dawlish and the emerging proposals for changes to services in the area.

The evidence provided to both review panels comprised of the Pre-consultation Business Case developed as part of NHS England's assurance process and included clinical evidence to support the case for change.

The 2019 review panel gave formal answers to a series of questions, including the following:

Can the Clinical Senate be assured that the 12 new rehabilitation beds originally proposed in the 2015 Consultation (which it did not input into at the time) are no longer required?

Answer: It seems very clear that they do not need the 12 rehabilitation beds that were proposed for Teignmouth hospital in 2015, but which have never been implemented.
The impact of the Integrated Care Team has reduced the need for beds despite the demographic and demand.

Further details of the NHS England South West Clinical Review are at Appendix A.

4. Published evidence for home-based intermediate care services

There is a consistent evidence base that establishes that providing care for people in their own homes wherever possible has better outcomes than reliance on hospital bed-based care.

a) Bed based care can have detrimental effects in older people

- Bed based functional decline affects 40% of >70 year olds[1]
- Bed based care associated with immobilisation, accelerated bone loss and sensory deprivation which can result in irreversible functional decline[2]
- Risk of hospital acquired infection increases exponentially over the age of 50[3]

This led the 2013 Keogh Report 'Transforming urgent and emergency care services in England[4]' to state:

"Hospitals can be harmful to some people. Frail and elderly people may be made worse by hospital admission, which takes them from a familiar home environment to a confusing and noisy place where they are also at risk of harm from infection and falls. Very often their medical need is small and they just need a bit more care to help them through."

We should do everything we can to ensure as many people as possible are cared for safely in their own home to reduce the proven negative impacts of bed-based care.

b) Home based care has proven better outcomes than bed-based care

Home based care is associated with:

- Fewer subsequent Emergency Department attendances[5]
- Lower readmission rates[5]
- Higher quality of life scores[5]
- Higher patient satisfaction scores[5]
- Reduction in falls[6]
- Increased likelihood of survival following a stroke[7]
- Reduced readmissions and incidence of depression in patients with COPD[8]

Clinical outcomes in home-based care including mortality rate were otherwise no different to bed based care[5]

We should do everything we can to ensure that patients are able to benefit from these improved outcomes achieved by providing care in their own homes.

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[1] Zisberg A, Shadmi E, Gur-Yaish N, Tonkikh O, Sinoff G. Hospital-associated functional decline: the role of hospitalization processes beyond individual risk factors. J Am Geriatr Soc. 2015;63(1):55-62

[2] Hazards of Hospitalization of the Elderly. Annals of Internal Medicine. 1993;118(3):219-23.

[3] Gross PA, Rapuano C, Adrignolo A, Shaw B. Nosocomial infections: decade-specific risk. Infect Control. 1983;4(3):145-7

[4] NHS England, High quality care for all, now and for future generations: Transforming urgent and emergency care services in England – Urgent and Emergency Care Review End of Phase 1 Report, 2013

[5] NICE. NICE guideline 82: Emergency and acute medical care in over 16s: service delivery and organisation 2017 [Available from: https://www.nice.org.uk/guidance/ng94/evidence/12alternatives-to-hospital-care-pdf-172397464599

[6] Beswick AD, Rees K, Dieppe P, Ayis S, Gooberman-Hill R, Horwood J, et al. Complex interventions to improve physical function and maintain independent living in elderly people: a systematic review and meta-analysis. Lancet. 2008;371(9614):725-35.

[7] Laver K, Lannin NA, Bragge P, Hunter P, Holland AE, Tavender E, et al. Organising health care services for people with an acquired brain injury: an overview of systematic reviews and randomised controlled trials. BMC Health Serv Res. 2014;14:397.

[8] Aimonino Ricauda N, Tibaldi V, Leff B, Scarafiotti C, Marinello R, Zanocchi M, et al. Substitutive "hospital at home" versus inpatient care for elderly patients with exacerbations of chronic obstructive pulmonary disease: a prospective randomized, controlled trial. J Am Geriatr Soc. 2008;56(3):493-500.

5. Impact of Enhanced Intermediate Care

The model of care in the Teignmouth and Dawlish areas has been successful in supporting rehabilitation in people's own homes rather than in a hospital bed. It has been showcased both nationally and internationally.

The Enhanced Intermediate Care Team including local GPs provide rehabilitation, mainly in peoples own homes or in short term residential or nursing home placements. They have demonstrated that intermediate care can provide the rehabilitation needed in people's homes, in short residential placements or occasionally in Dawlish Community Hospital.

a) Researchers in Residence

The integrated care model has been evaluated by Researchers in Residence (RiR) from Plymouth University, Dr Felix Gradinger and Dr Julia Elston. This involves a two-year mixed-method case study of the experience and impact of two part-time RiRs, embedded within an Integrated Care Organisation to support the implementation of new models of care[9].

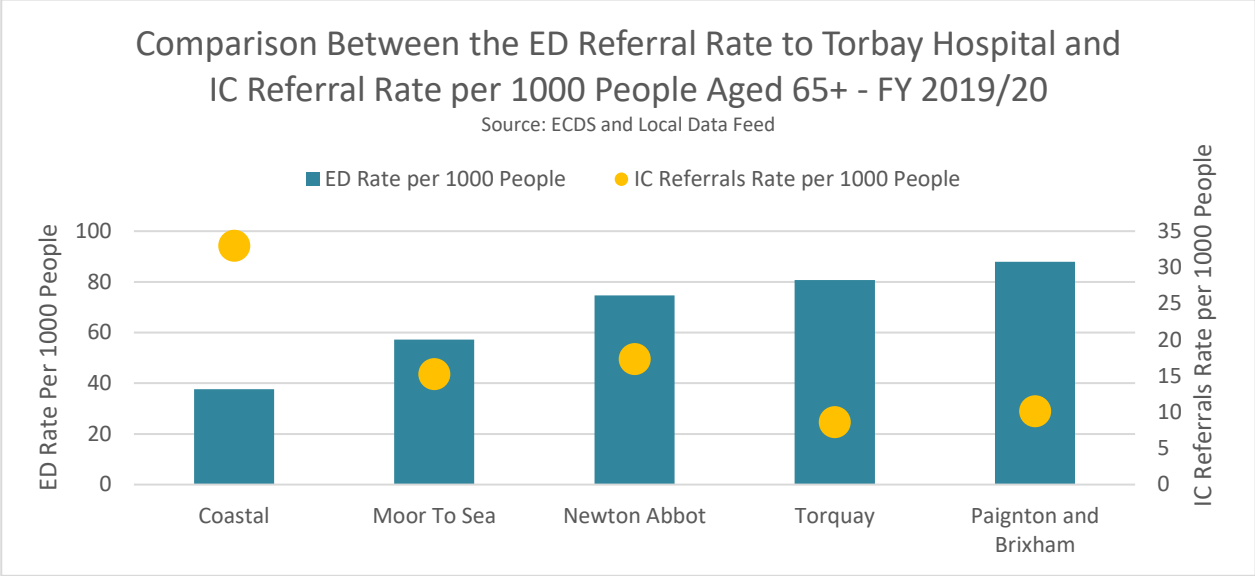
Their findings include:

- The Teignmouth and Dawlish area has a much lower proportion of over-70s needing some form of bed-based care than other parts of South Devon and Torbay. More Coastal patients are looked after in the community than in other localities, fewer days in Torbay or Community Hospital beds. This data suggests that Coastal has lower bed-day rates overall, lower rates of IC bed days, and a greater numbers and rate (as Coastal has a relatively smaller population of >70s than other localities) of home referrals than other localities, all pointing to a difference in practice in Coastal compared to other localities. This could be because the intermediate care team in the Teignmouth and Dawlish area can manage more complex cases at a community level, often in people's homes, without the need to use any type of bed-based care
- A higher proportion of over-70s in the Teignmouth and Dawlish area receive care in their own bed compared with other areas, thanks to the way care is provided in the area. This way of caring for people would have to change if staff were diverted to running a bedded rehabilitation ward in Teignmouth Community Hospital
- The proportion of over-70s in the Teignmouth and Dawlish area who have to use an emergency hospital bed is much lower compared with other areas illustrating that because of the local use of the EICT, there is a viable alternative to admitting patients to A&E. There appears to be a correlation between high use of Intermediate Care (IC), high GP referrals to IC and lower use of Emergency Department in Coastal. This supports a hypothesis that Coastal is holding a higher complexity case load.

Further information on the University of Plymouth research is at Appendix B.

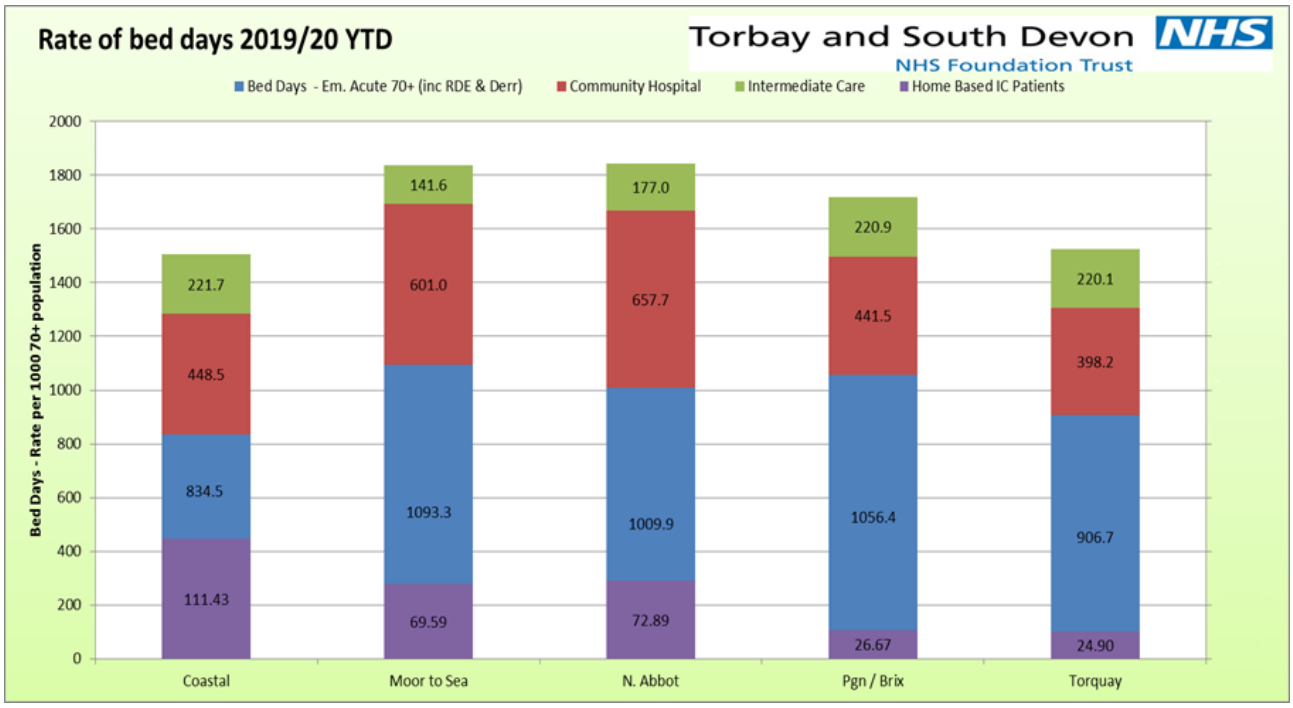
[9] Gradinger, F., Elston, J., Asthana, S., Martin, S. and Byng, R. (2019) Reflections on the Researcher-in-Residence model co-producing knowledge for action in an Integrated Care Organisation: a mixed methods case study using an impact survey and field notes, *Evidence & Policy*, vol 15, no 2, 197–215, DOI: 10.1332/174426419X15538508969850.

b) ED Referral Rate and IC Referral Activity



The graph above shows a correlation between a high referral rate to Enhanced Intermediate Care per 1000 population aged over 65 years (33 per 1,000) and a low referral rate to the Emergency Department in Torbay Hospital (81 per 1,000) showing that the Enhanced Intermediate Care Team could be managing greater complexity within the locality and preventing acute hospital attendance and admission.

c) Bed Use

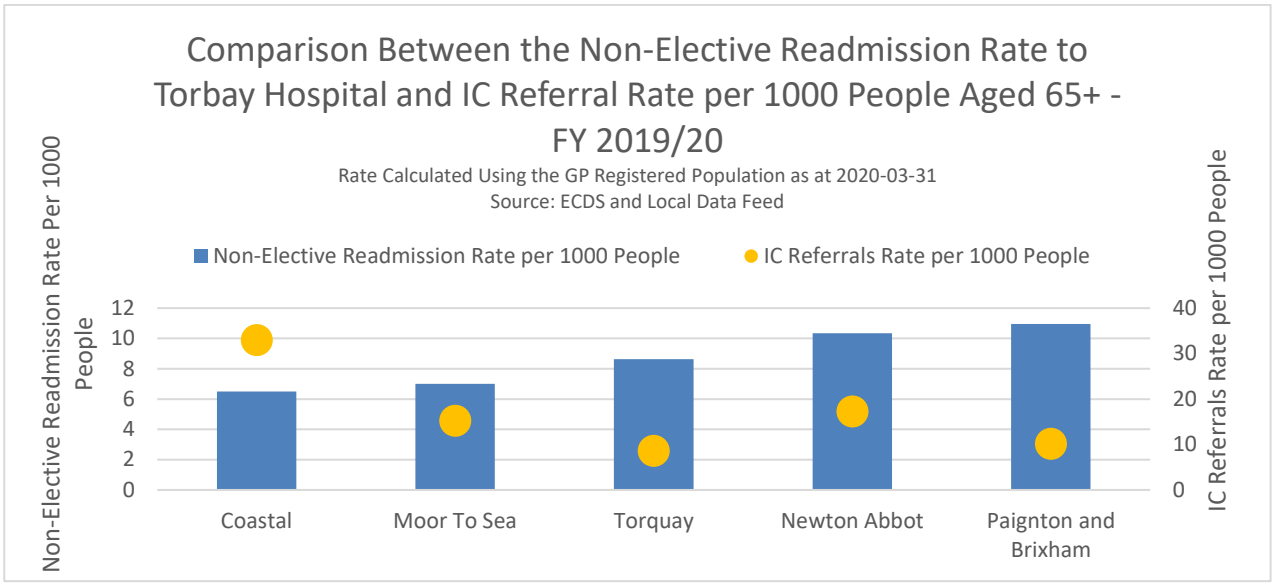


Source: Torbay and South Devon NHS Foundation Trust

The graph above shows that in the Coastal locality the bed days used up to December 2019/20 per 1,000 population aged over 70 years is lowest for emergency bed days (448.5 per 1,000) and

highest for bed days in a patient's own home (111.43). Coastal, Torquay and Paignton and Brixham localities are similar in their use of Intermediate care home beds and community hospital beds.

d) Emergency readmission to acute hospital within 28 days of discharge.

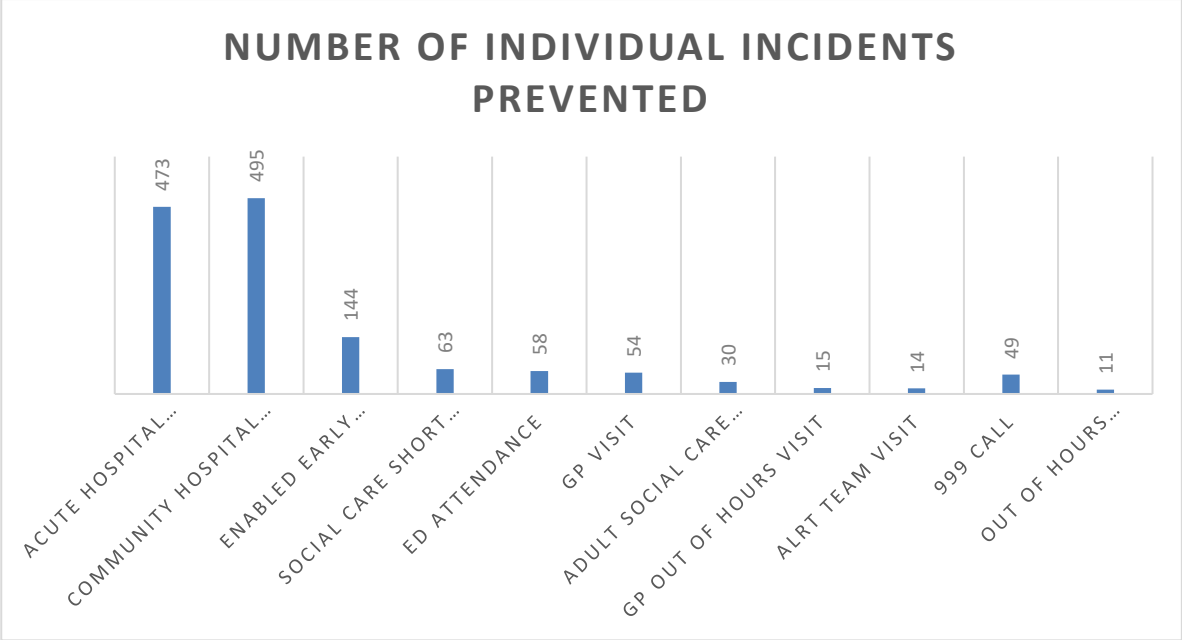


The graph above shows a correlation between a high referral rate to Enhanced Intermediate Care per 1000 population aged over 65 years (33 per 1,000) and a low emergency readmission rate to the Emergency Department in Torbay Hospital (6 per 1,000) showing that the Enhanced Intermediate Care Team could be managing greater complexity within the locality and preventing acute hospital emergency readmission.

e) Prevention of Other Activity

The Enhanced Intermediate Care Team used their clinical judgement to assess other activity that had been prevented as a result of their intervention between November 2019 and 31 October 2020

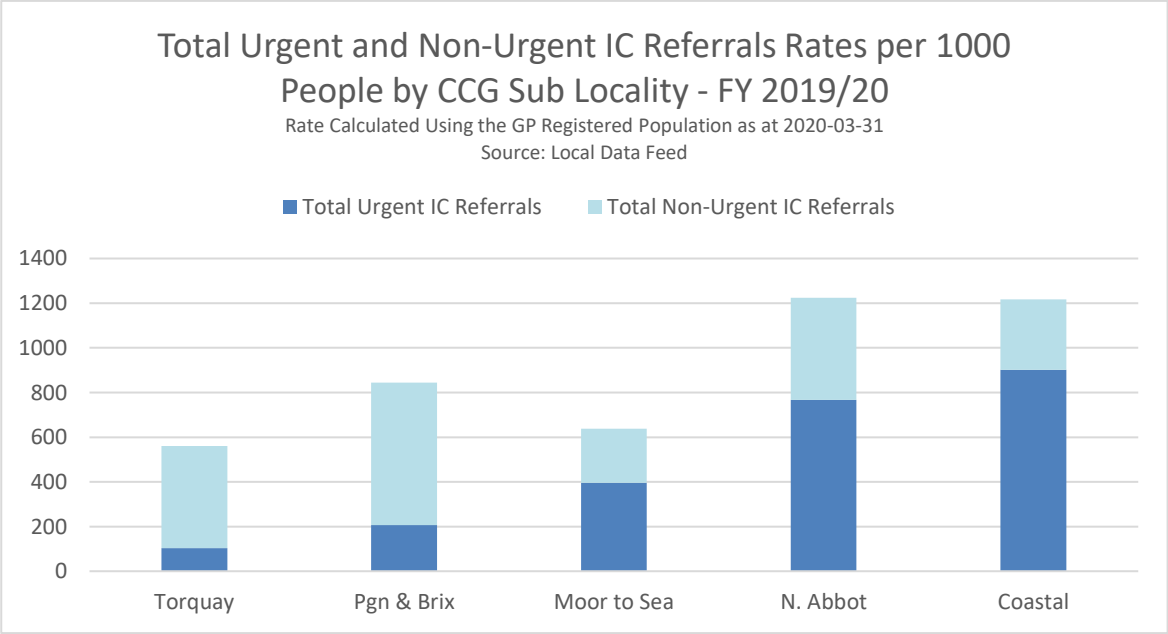
The data is shown in the graph below and shows that their intervention is clinically assessed to have avoided 968 hospital admissions in the year.



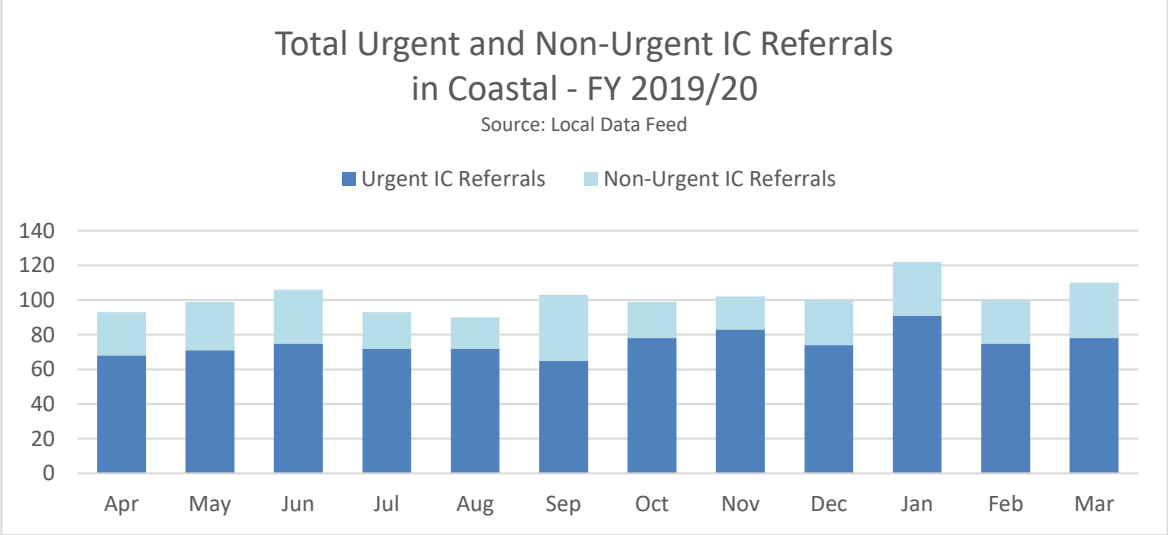
Source: Torbay and South Devon NHS Foundation Trust

6. Intermediate Care Activity

a) New referrals to Intermediate Care

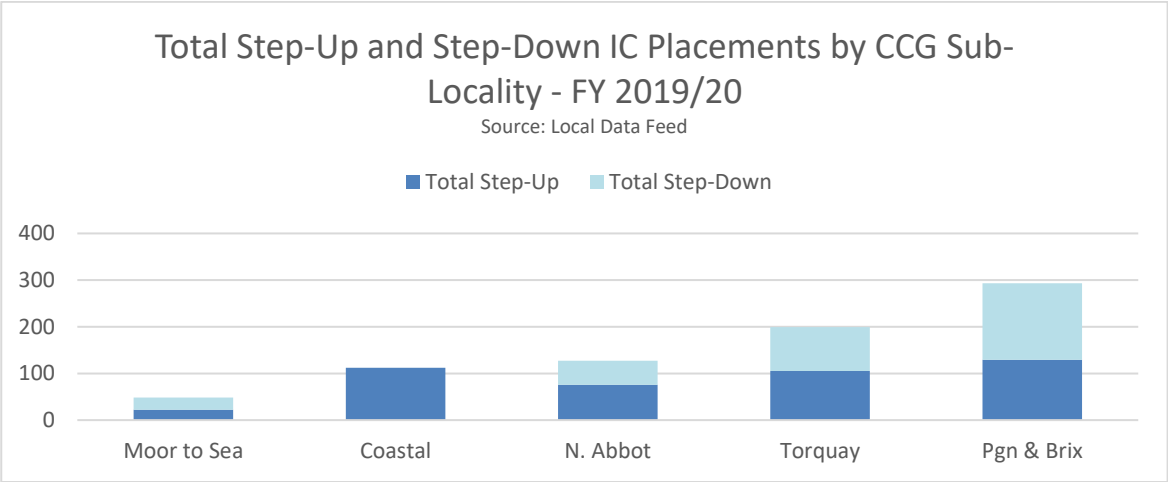


The graph above shows that the Coastal Locality (along with the Newton Abbot Locality) has a high number of referrals per 1,000 population compared to other localities. Of these 315 referrals per 1,000 people are non-urgent referrals and 905 are urgent referrals. This shows that the Coastal Locality uses its intermediate care service to support urgent care and equates to the low number of emergency admissions and readmissions shown in the graphs above.



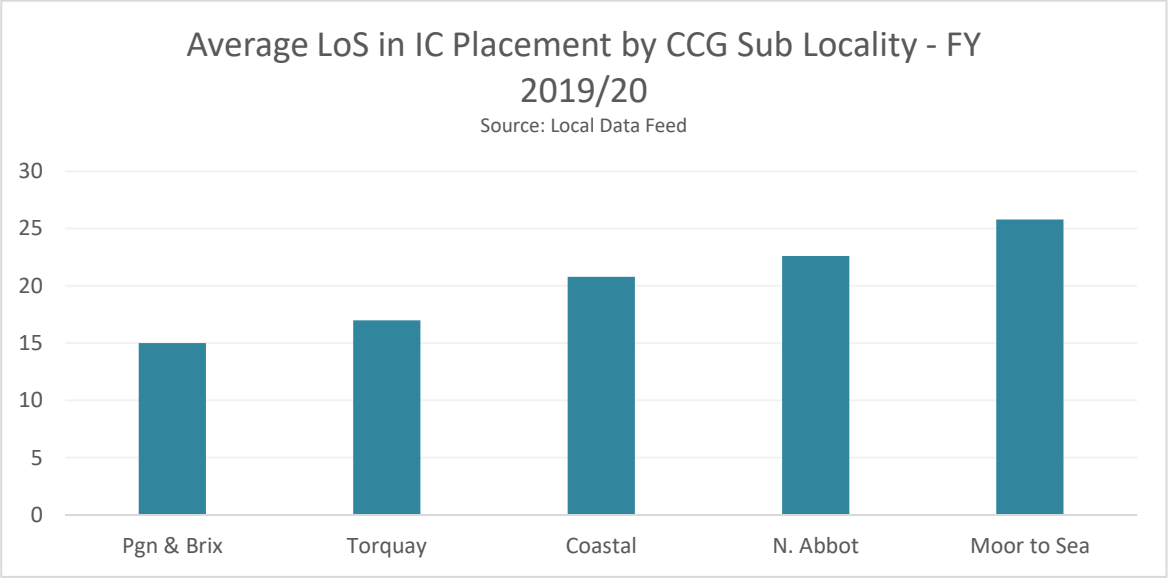
The graph above shows that referrals to intermediate care in the Coastal Locality are relatively consistent throughout the year with the majority of referrals being for an urgent response supporting people in the community rather than an acute hospital setting.

b) Number of IC patients placed in care home short term



The graph above shows the use of care home placements by the intermediate care team as part of the service provided to patients. Coastal used 112 care home placements in 2019/20 and all of these were ‘step up’ placements i.e. placements from someone’s home rather than stepping down from a hospital stay. This shows that placements are used by the team to prevent a hospital admission rather than as part of the discharge from the acute hospital.

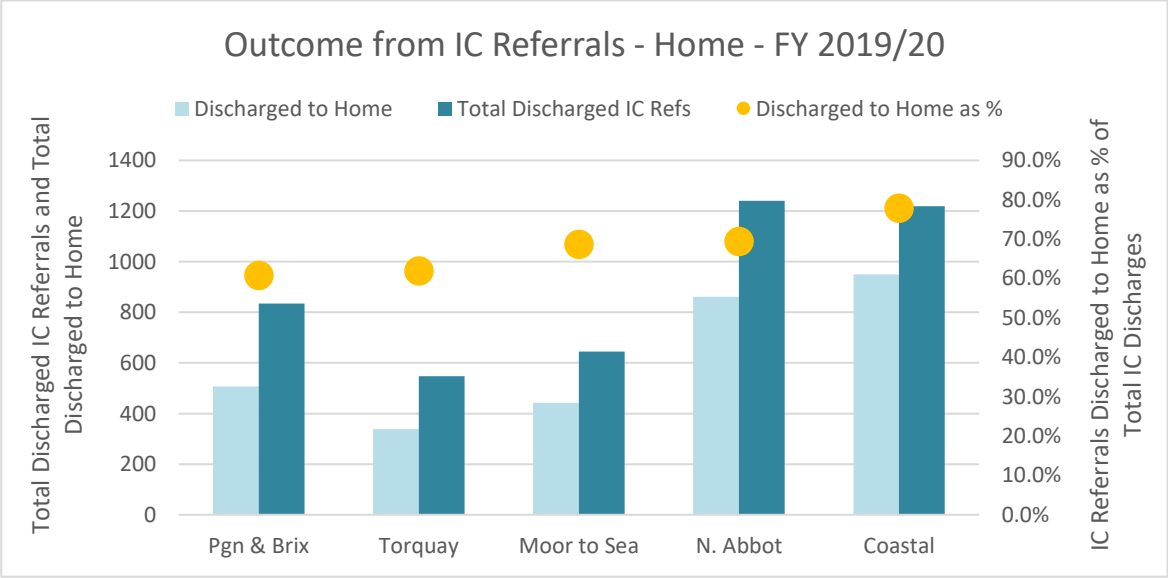
c) Length of Stay



The average length of stay in an intermediate care home placement in the Coastal Locality was 20.8 days, average compared to other localities.

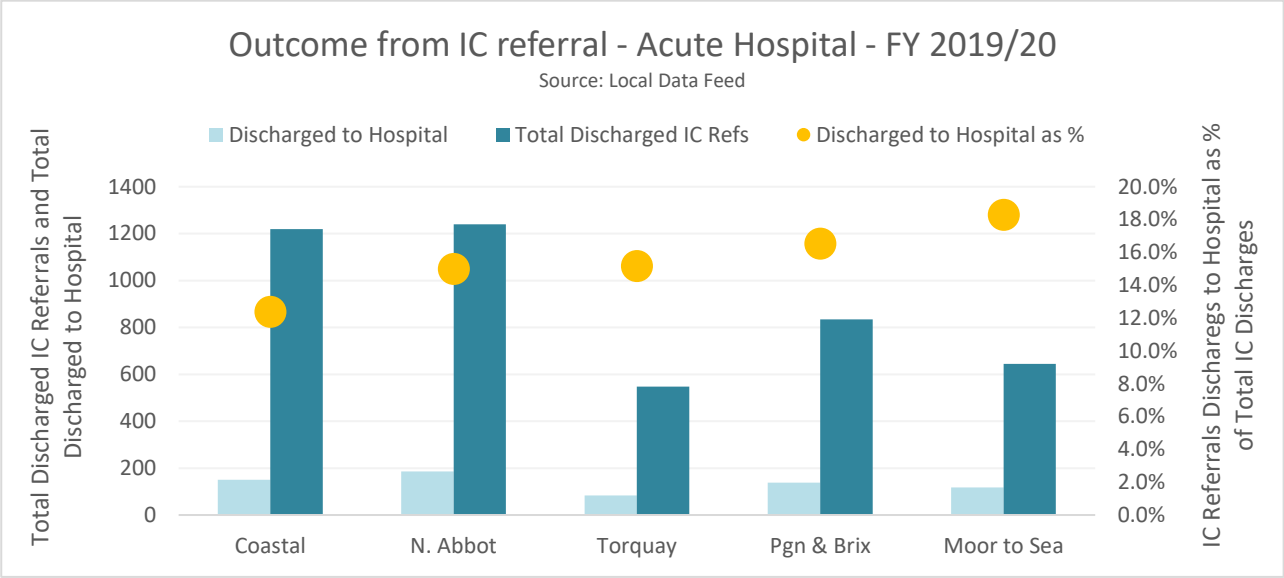
7. Outcomes

a) Outcome from intermediate care service – Home



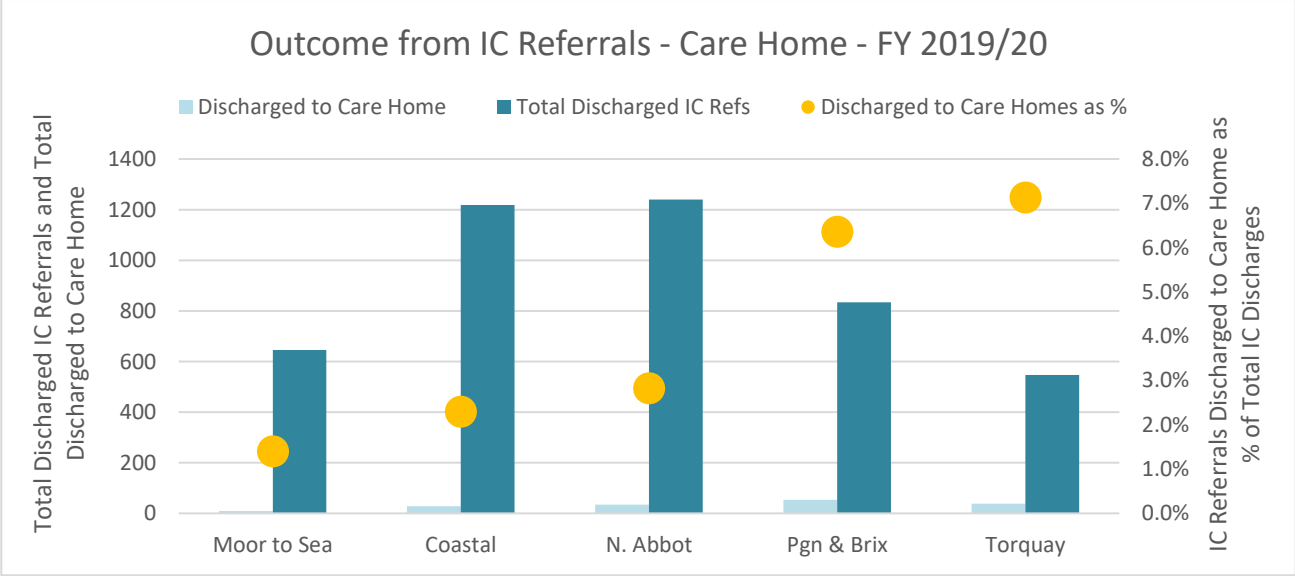
In all localities, the majority of patients stay in their own home following receipt of a service from the intermediate care team with Coastal having the highest % of patients discharged home (80%) as % of total discharges. This shows that the service supports people to regain their independence and stay in their own homes.

b) Outcome from intermediate care service - Acute Hospital



The % of people receiving an intermediate care service and then being admitted to an acute hospital at the end of that service ranges from 12.4% in Coastal to 18.3% in Moor to Sea. This shows the Coastal EICT has the lowest number of patients transferred into an acute hospital as a % of total discharges which could show that the EICT is successful in managing greater complexity in the community.

c) Outcome from intermediate care service – short and long term placement



The % of people receiving an intermediate care service and then being placed in a care home at the end of that service ranges from 1.4% in Moor to Sea and 2.3% in Coastal to 7.1% in Torquay. This shows the Coastal EICT has the low number of patients placed into a care home as a % of total discharges which could show that the EICT is successful in supporting people to regain their independence and not needing additional bedded care.

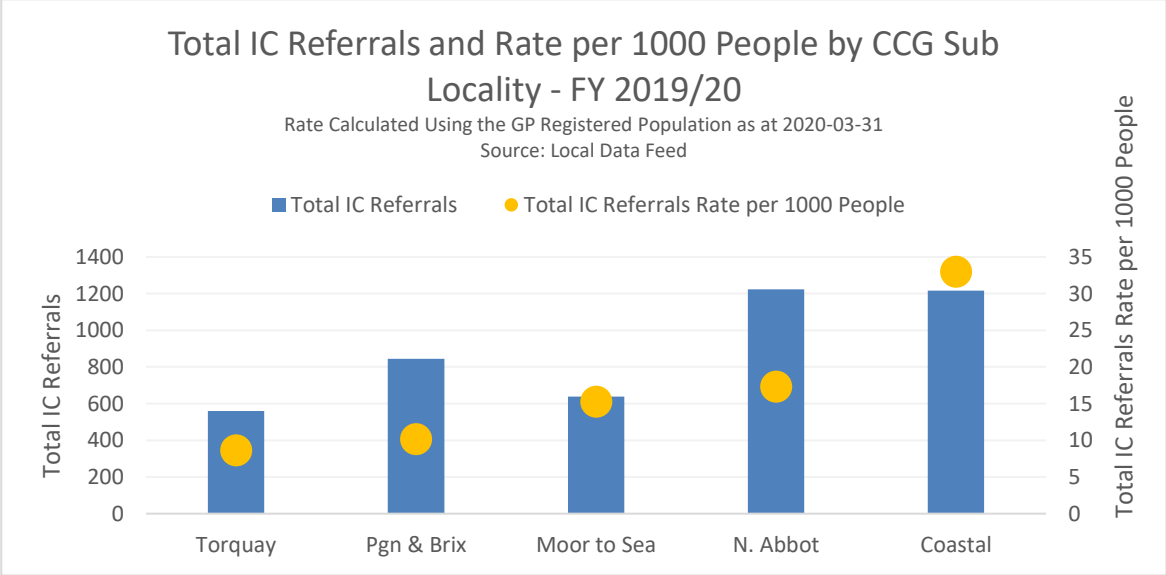
8. Capacity to Care for People and Meet Growing Demand

a) Cost of Enhanced Intermediate Care and Ward-based rehabilitation beds

The total cost of running the Enhanced Intermediate Care team and purchasing beds as required from the independent sector was £665,000 per annum in 2017/18. The 12 bedded rehabilitation ward would cost £627,000 (based on 2017/18 staffing costs) plus of costs of maintaining a building. Thus, the costs of operating both services are comparable.

b) Capacity of Enhanced Intermediate Care and Ward Based rehabilitation beds

The Enhanced Intermediate Care team in Coastal cared for 1,217 people (both in care homes and in their own home) in the year 2019/20 or 33 people per 1,000 population. This is the highest rate per 1,000 people of all the localities. Of these 112 required a short-term placement in a care home.



A 12 bedded rehabilitation ward would provide 3942 bed days per annum and would be able to care for approximately 232 people in a year assuming a 90% occupancy and 17 day length of stay.

The community based enhanced intermediate care team is able to care for 5 times as many people as a 12 bedded rehabilitation ward for approximately the same level of investment. The team is also to able to flex in terms of staff resource to meet increased demand and capacity is not limited by the number of beds available.

5 Conclusion

The clinical evidence shows that people can be adversely impacted by a hospital admission and that the clinical outcomes for a home-based service are better than that of a bed-based service. The evidence shows the success of the Enhanced Intermediate Care team in avoiding hospital

admissions and readmissions and managing complexity in people's own homes. The Enhanced Intermediate Care team is able to care for 5 times for people than could be cared for on a rehabilitation ward and is able to flex its capacity to meet demand.

Appendices

Appendix A NHS England South West Clinical Senate

https://devonccg.nhs.uk/download/teignmouth-and-dawlish-consultation-appendix-5a-south-west-clinical-senate-teignmouth-desktop-review#

Appendix B University of Plymouth research

https://devonccg.nhs.uk/download/teignmouth-and-dawlish-consultation-appendix-5b-intermediate-care

https://devonccg.nhs.uk/download/teignmouth-and-dawlish-consultation-appendix-5c-voluntary-sector