# Introducing the SAFE Study: Co-designing a Systematic Approach to improving care for Frail Older Patients*

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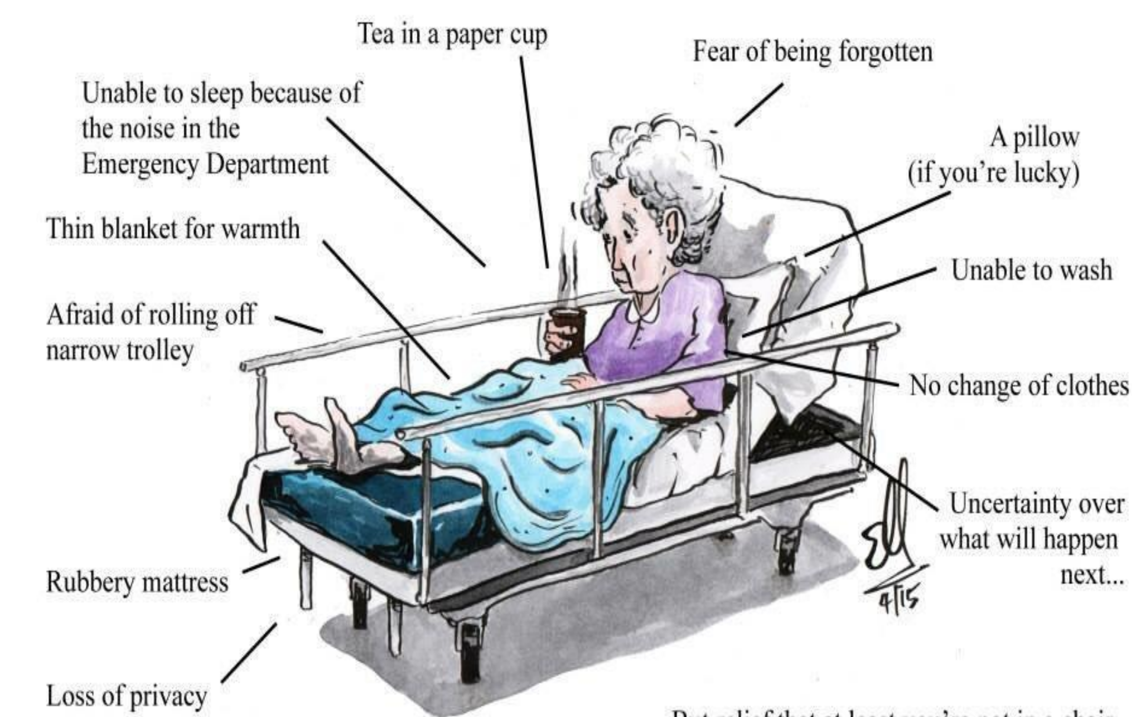
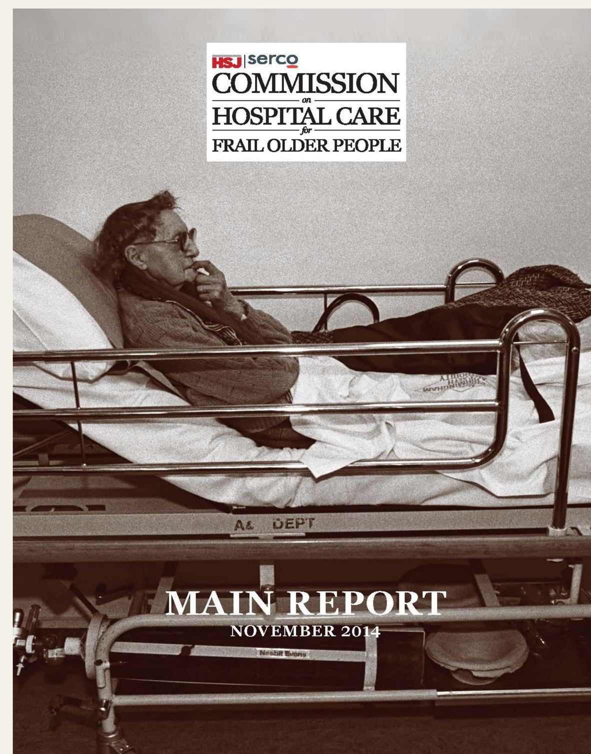
## Introduction

The concept of frailty, is associated with key clinical syndromes including loss of mobility, falls, confusion, incontinence and polypharmacy. Frail patients are particularly vulnerable to adverse effects of hospitalisation, including deconditioning, immobility, and loss of independence. [1 2 3 4]



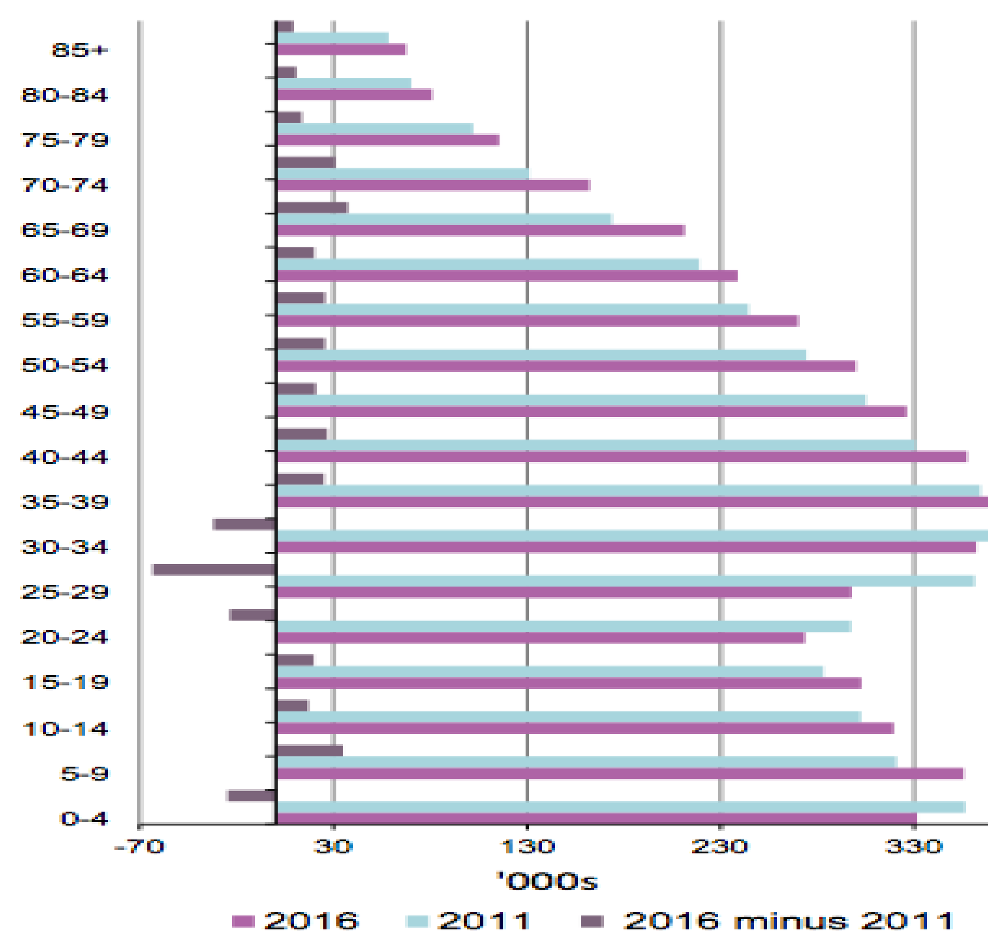

There is significant agreement in the literature that hospital admission is considered a health risk for older patients:

- Ten Days of bed rest for some over 75 leads to 10% aerobic capacity loss and 14% loss of muscle strength-This is equivalent to 10 years of life.
- On average every ward move adds two days to length of stay. [5]




Within St Vincent's University (SVUH) hospital data analysis from the Special Delivery Unit for the period from January to August 2014 conducted on a sample of 382,334 attendances shows that more than one-third of attendances at ED during this period were in the 65+ age cohort, with 12.37% aged 75+.[6] This from a population of over 65s which in 2016 has increased by 19.1 per cent since the 2011 census.[7]

**Ireland 2016-2011 Census Population Shift**



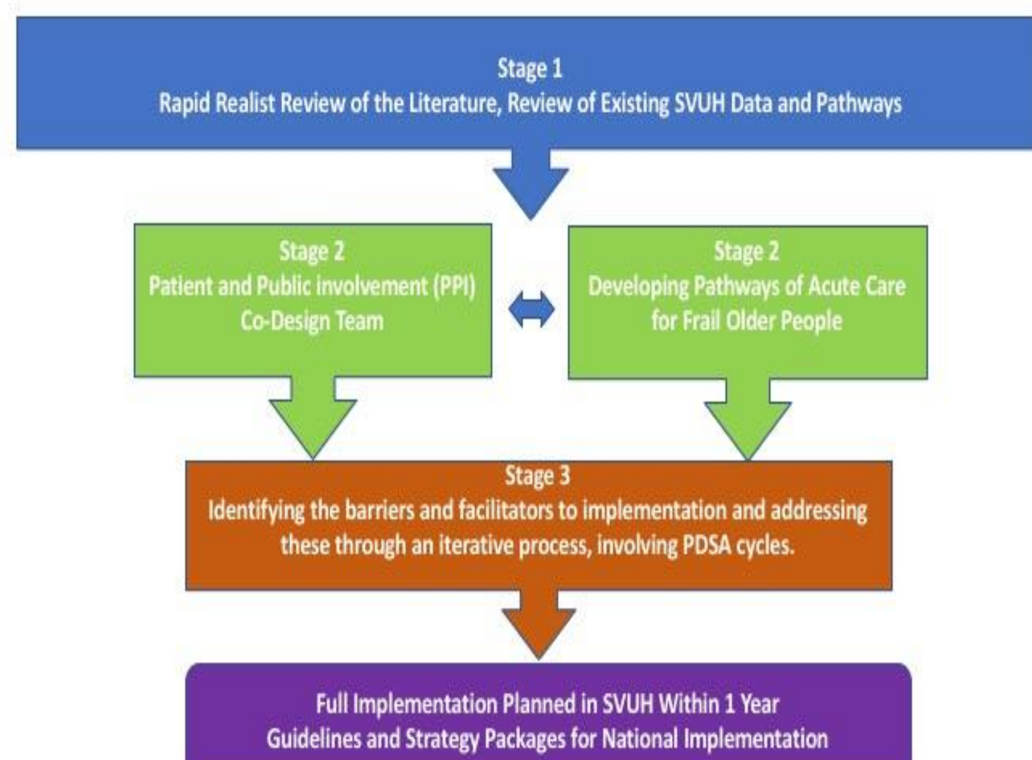

In 2016 for the population aged over 85, the male population increased by 24.8 per cent to 23,062 while the female population increased by 11.4 per cent to 44,493.

This population shift raises concern about whether services will be able to cope with rapidly increasing demand. Recently attention has focused on identifying the best pathways for treating frail elderly patients identified as a priority of the national programme for older persons and the emergency department task force to develop pathways and processes aimed at improving care in this age group. [8 9]

## Aim

UCD researchers in partnership with knowledge users in SVUH are collaborating with patient representatives and advocacy groups as well as community service providers and rehabilitation facilities, to develop and explore the process of implementing a model of excellence in the delivery of patient-centred integrated care within the context of frail older person's acute admissions.

## SAFE Methodology

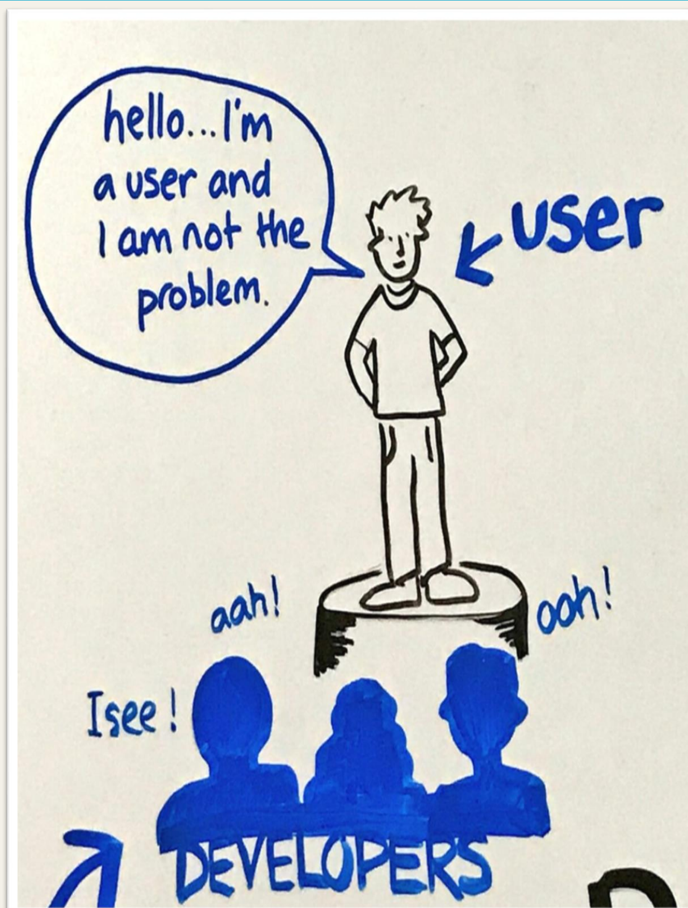


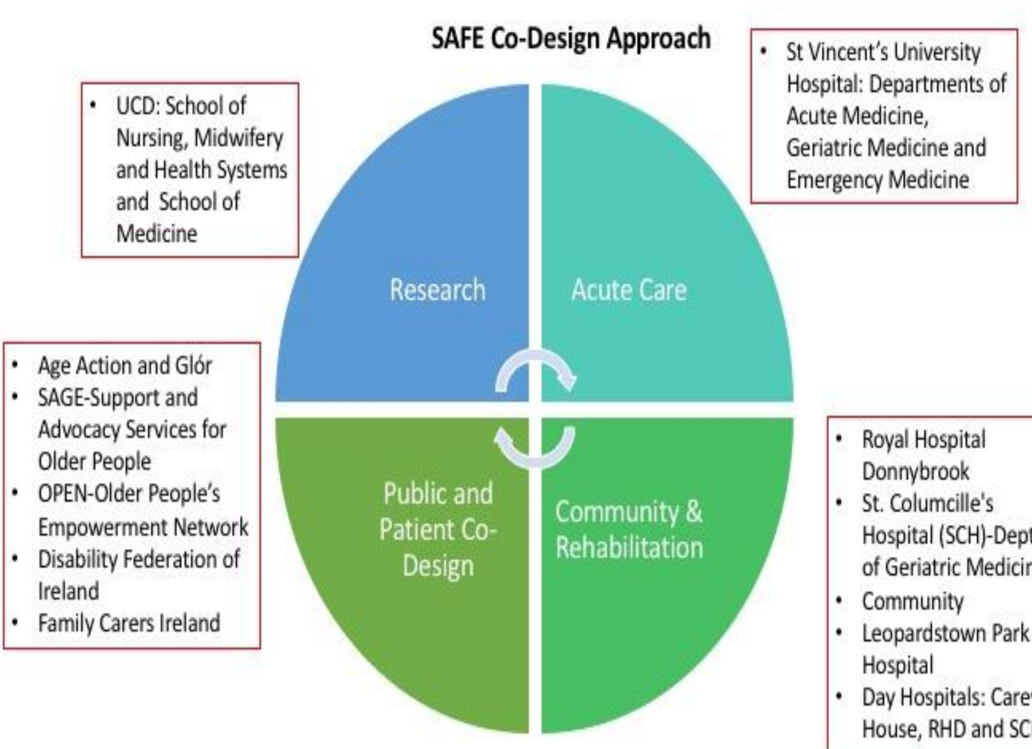

## SAFE Stage 1

We are undertaking a rapid realist review (RRR) of the literature which is a relatively new approach to synthesis knowledge[10]. For those working within an applied clinical setting a RRR is an appealing approach to enable the unpacking of the complexities of contexts and interrelated mechanisms underlying implementation activities[11]. More broadly the benefits of engaging diverse stakeholders in the co-production of the literature review process is seen within the literature as being beneficial as it provides increased clarity and awareness of the transferability of the review findings[12]. A map of current pathways and processes in SVUH of unscheduled care for frail older people is also being undertaken by reviewing hospital data and undertaking interviews with staff.

## SAFE Stage 2 Co-Design Approach

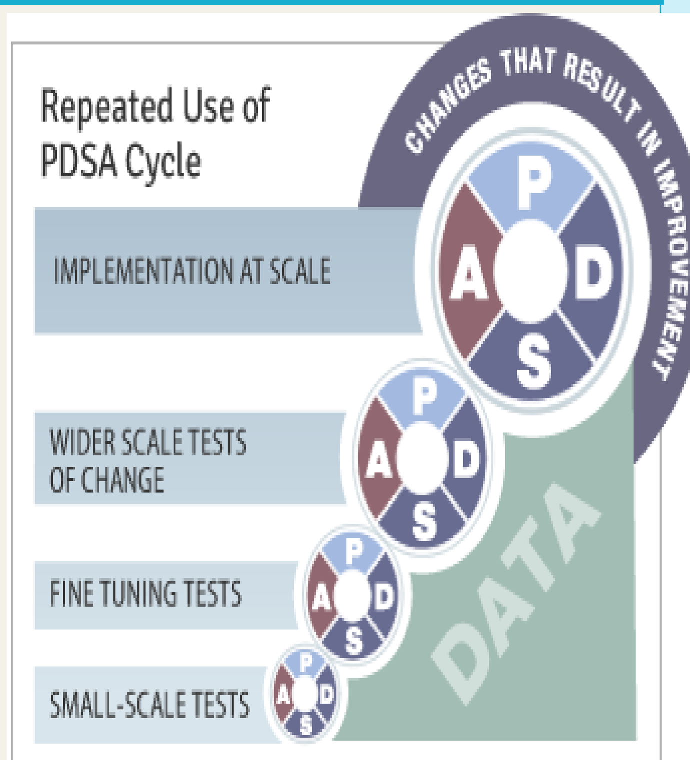
The focus of co-design is on knowledge production and translation (rather than dissemination of findings[13]. One approach to co-design involves developing democratic partnerships between researchers and stakeholders with a view to involving service providers and potential end-users in the design of research, promoting their understanding and capacity, and encouraging uptake of findings.




## SAFE Stage 3 PDSA Cycles

Following co-design we will explore the barriers and facilitators to effective implementation of the developed pathway though successive PDSA cycles (plan, do, study act). Qualitative research methods, including interviews with patients and staff will be used to assess the performance of the new system in terms of outcomes.




## Public and Patient Involvement

Public and patient involvement (PPI) has been a key consideration in healthcare for several decades now. However, our knowledge of how to involve the public and patients to greatest effect in healthcare has not advanced substantially in the past decade. Yet healthcare policy and strategy increasingly emphasizes the important role of the patient, and the goal of achieving patient-centred care is high on health providers' agendas[14]. The project aims to address this knowledge gap by adopting a systematic approach to PPI in the co-design of care pathways for acute frail older patients. Participants for the PPI co-design group will be recruited from the membership of patient advocacy organisations including Family Carers Ireland, Age Action Ireland, SAGE and OPEN. Connection with these organisations and members of the research teams have already been fostered through research collaborations on previous projects. Six co-design workshops are proposed additional workshops may be added as required by the co-design participants.

| Workshop Schedules | Themes |
|---|---|
| Workshop 1 | Introductions and review of project aims and objectives. Presentation to the group of the initial scoping of literature review and presentation of current SVUH pathways. |
| Workshop 2 | Discussion of the groups experiences and understandings of frailty in later life as well as the care of older people in hospitals as well as in the community. Problems with existing care will be highlighted as well as discussion of some models of better care practices from the literature. |
| Workshop 3 | The development of recommendations and adaptations to a proposed model of care for older people in St Vincent's University Hospital |
| Workshop 4 | The identification of patient priorities and outcomes which should be used for the evaluation of a new model of care in the hospital. |
| Workshop 5 | This workshop will be held after the new model of care has been delivered in the hospital. The workshop will involve discussion of the outcomes from this model of care in order to ensure that patient-centred priorities and concerns are being addressed. |

## SAFE Outcomes

It is the expectation of the knowledge user organisation SVUH that this pathway would be implemented within 6 months to 1 year. Importantly, we will have laid the groundwork for the pathway to be assessed in terms of achieving outcomes and appropriate implementation.

The eventual outcome will also be nationally relevant providing guidance on implementation of patient centred pathways for frail older people, in the Irish context, which meet standards mandated in national policies.

## References

1. Richardson, D.B., Increase in patient mortality at 10 days associated with emergency department overcrowding. Med J Aust, 2006. 184(5): p. 213-6.
2. Liew, D., D. Liew, and M.P. Kennedy, *Emergency department length of stay independently predicts excess inpatient length of stay.* Med J Aust, 2003. **179**(10): p. 524-6.
3. Wallis, S.J., J. Wall, R.W. Biram, and R. Romero-Ortuno, *Association of the clinical frailty scale with hospital outcomes.* QJM, 2015. **108**(12): p. 943-9.
4. Kelleher, E.. *Anatomy of a Patient on a Trolley*. Retrieved from: http://eoinkelleher.com/portfolio/anatomy-of-a-patient-in-a-trolley/
5. HSJ/Serco Commission (2014). Commission on Hospital Care for Frail Older People: Main Report. Retrieved from: https://www.hsj.co.uk/5076859.article
6. J McLoughlin for the SDU, *The case for a radical overhaul of the care pathways for the elderly in the emergency department.* Special Delivery Unit: Dublin, 2014
7. CSO. Census 2016 Summary Results - Part 1. Retrieved from: www.cso.ie
8. HSE, *ED Task Force Report.* 2015.
9. Persons, N.C.P.f.O., *Specialist Geriatric Services: Model of care.* 2012.
10. Pawson R, Greenhalgh T, Harvey G, and Walshe K. Realist review-A new method of systematic review designed for complex policy intervention. *J Health Serv Res Policy 2005;* 10 (Suppl 1):21-34
11. Khangura S, Polisena J, Clifford TJ, Farrah K, Kamel C. Rapid review: An emerging approach to evidence synthesis in health technology assessment. Int J Technol Assess Health Care. 2014;30:20–7.
12. Saul J., Willis C., Bitz J., and Best A., A time-responsive tool for informing policy making: Rapid realist review. *Implement Sci*. 2013, **8:** 103-118.
13. Janamain T, Jackson C, Dunbar J. Co-creating value in research: stakeholders' perspectives. Med J Aust. 2014;201(3):S44–6.
14. Glasby J., Littlechild R., Le Mesurier N., and Thwaites R. (2016) Who knows Best? Top Tips for Managing the Crisis: Older Peoples Emergency Admissions to Hospital., Department of Social Policy and Social Work, University of Birmingham.

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