# A Gap Analysis of Geriatric Trauma Research Projects in the United States

2018 HSRProj Research Competition for Students

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# Outline

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# Background

- Population Aged 65+ the fastest growing: 14.3% in 2014 and 23.5% by 2060 (1,2)
- Quality of care for older adults is an emerging issue (3)
- Falls are the leading cause of injury for older adults (4)
- Trauma includes a wide spectrum of issues
- Geriatric trauma involves the confluence of age-related decline that causes injury and the body's physiologic effort to maintain homeostasis during and after hospitalization (5)

# Research Statement

Identify potential research gaps related to trauma in aged/geriatric participants

# Methods: Project Identification

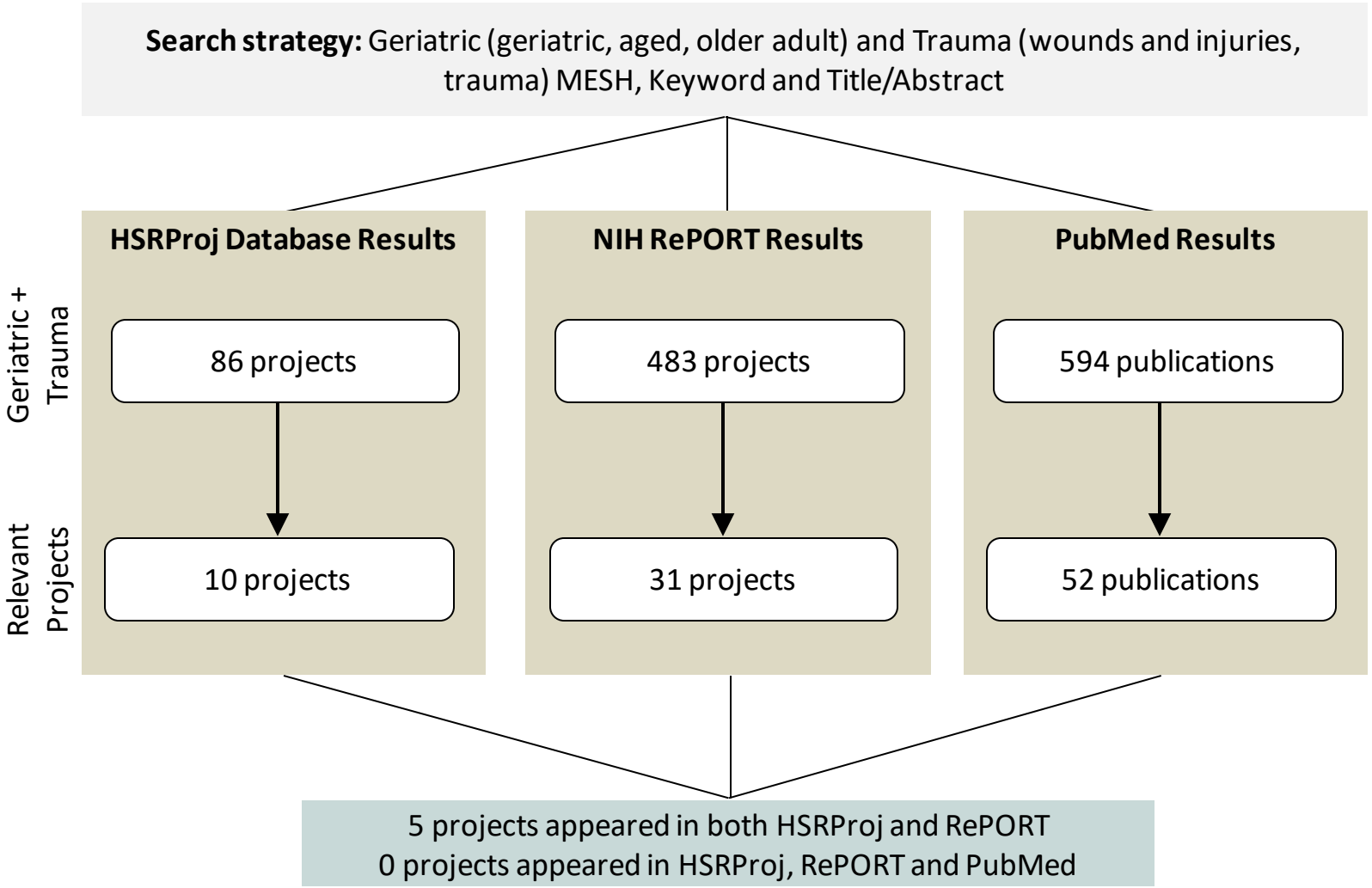
- Adapted PRISMA guidelines (6)
- Developed a peer-reviewed strategy
- Two reviewers searched the database
- Search strategy included MESH and key terms
- Relevant projects identified based on inclusion and exclusion criteria
  - Inclusion: Primary population of interest, population >65 with the primary condition being physical trauma
  - Exclusion: Post-traumatic Stress Disorder and fall-reduction education programs

# Methods: Gap Analysis

- Final projects were studied to identify research gaps
  - Type of research
  - PICO
  - Methodology
  - Outcomes measured
  - Intervention utilized
- NIH RePORT and PubMed were also searched utilizing parallel search strategies in order to triangulate results

# Results: Project Identification

Figure 1. Search Strategy and Results [7]



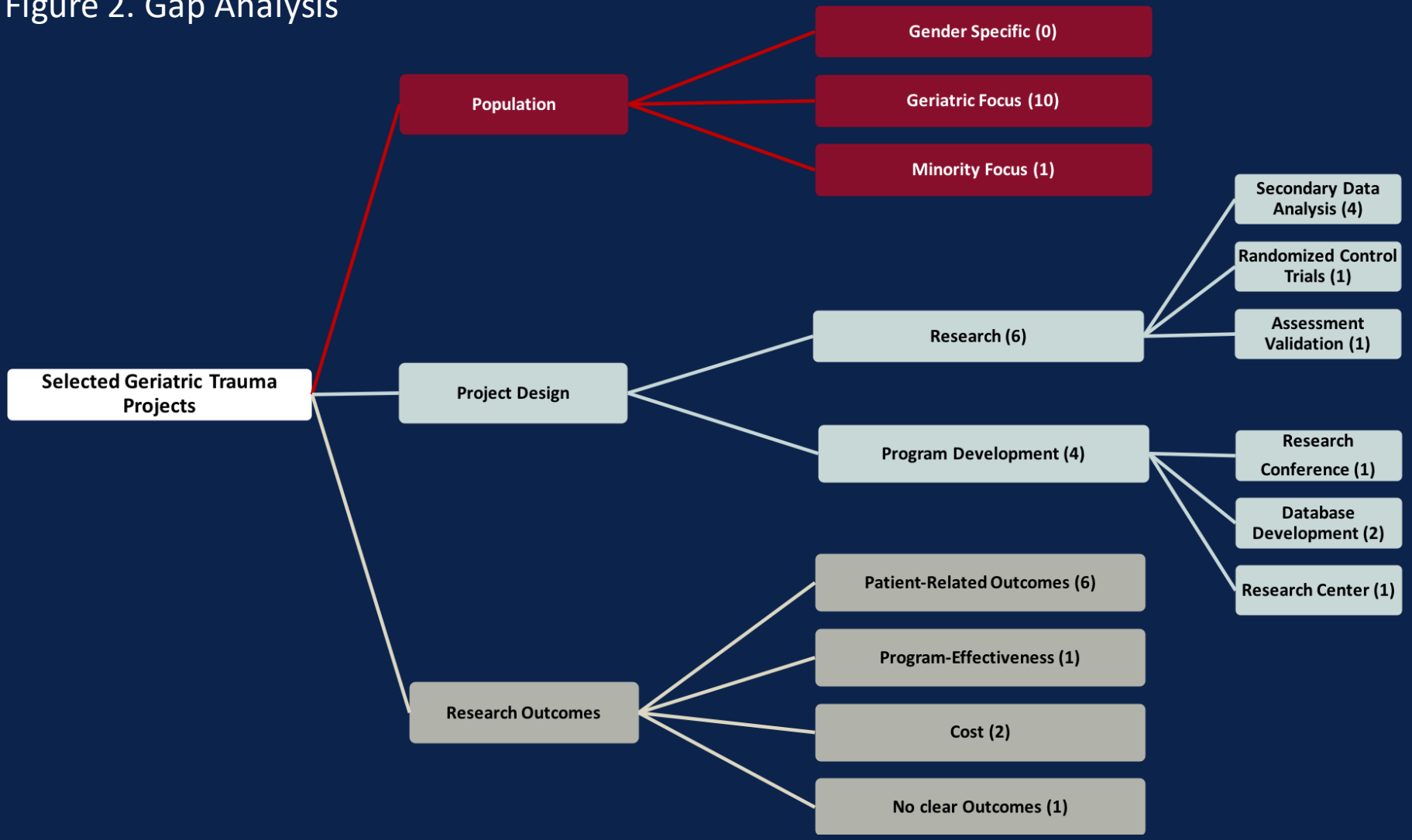
# Results: Project Characteristics

Table 1. HSRProj Selected Projects Summary

| Project | Type | Outcome(s) |
|---|---|---|
| Randomized trial of a multifactorial fall injury prevention strategy: a joint initiative of PCORI and the National Institute on Aging of the National Institutes of Health (PI: Shalender Bhasin) | Patient-Centered Intervention | Serious fall injuries |
| Upper extremity frailty assessment tool (PI: Joseph Gwin) | Clinical Assessment | Assessment validation |
| Defining the impact of injuries in the elderly (PI: Kristan Staudenmayer) | Clinical Database | Pre-injury function and injury risk |
| Supporting the creation of a LEARNing INteGrated health system to mobilize context-adapted knowledge with a Wiki platform to Improve the transitions of frail Seniors from emergency Departments to the cOMmunity: the LEARNING WISDOM program (PI: Patrick Achambault) | Clinical Database and Training | Program effectiveness |
| The value of emergency care for injured older adults (PI: Craig Newgard) | Secondary Data Analysis | Survival, resource utilization, costs |
| The one-year trajectory of elderly patients after cervical spine fracture (PI: Zara Cooper) | Secondary Data Analysis | Mortality, readmission, and health care utilization post-injury |
| 5-year survival following injury in geriatric patients (PI: Laura Criddle) | Secondary Data Analysis | 5-year survival and time-to-death |
| Costs and effectiveness of trauma care in the elderly (PI: Ellen Mackenzie) | Secondary Data Analysis | Costs and clinical outcomes |
| Program on health research for older rural populations (PI: Gordon DeFriese) | Research Center | Aging processes of rural older adults |
| Shared Decision Making in the Emergency Department (ED): Development of a Policy-relevant Patient-centered Research Agenda (PI: Corita Grudzen) | Research Conference | None |

# Results: Gap Analysis

Figure 2. Gap Analysis



# Conclusion

- Few projects focused on geriatric trauma
- Handful focused on research
- It is a critical public health problem
- There is a need for systematic attention
- More research is needed to identify interventions and long term outcomes in this population

# References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