

A Needs Assessment and Program Development for Implementation of a Fracture Liaison Service

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Purpose

The purpose of this quality improvement project was to:

- To conduct a needs assessment and program development for a fracture liaison service to improve secondary fragility fracture management in osteoporotic women between the ages of 50 and 85 that are enrolled within an accountable care organization (ACO).
- To incorporate a fracture liaison service evaluation with a cost-benefit analysis to evaluate the overall impact of a fracture liaison service.

Background

- Osteoporosis is a disease characterized by low bone mass and structural deterioration of bone tissue and as of 2018 it affects more than 53 million people in the United States (National Institute of Health [NIH], 2018).
- As a prior fracture is associated with an increase of 86% for a future fragility fracture, identification of the underlining osteoporosis and initiation of best evidence-based practices are critical to reduce subsequent fractures (International Osteoporosis Foundation [IOF], 2017).
- Research shows a growing interest in addressing the need for high quality osteoporosis management with a fracture liaison service (FLS) (Aizer & Bolster, 2014).

Methods

Project design:

- A retrospective chart was completed using claims data for the convenience sampling of the inclusion criteria.



- The chart review and measures of the project were guided by the International Osteoporosis Foundation's Capture the Fracture's Best Practice Framework.

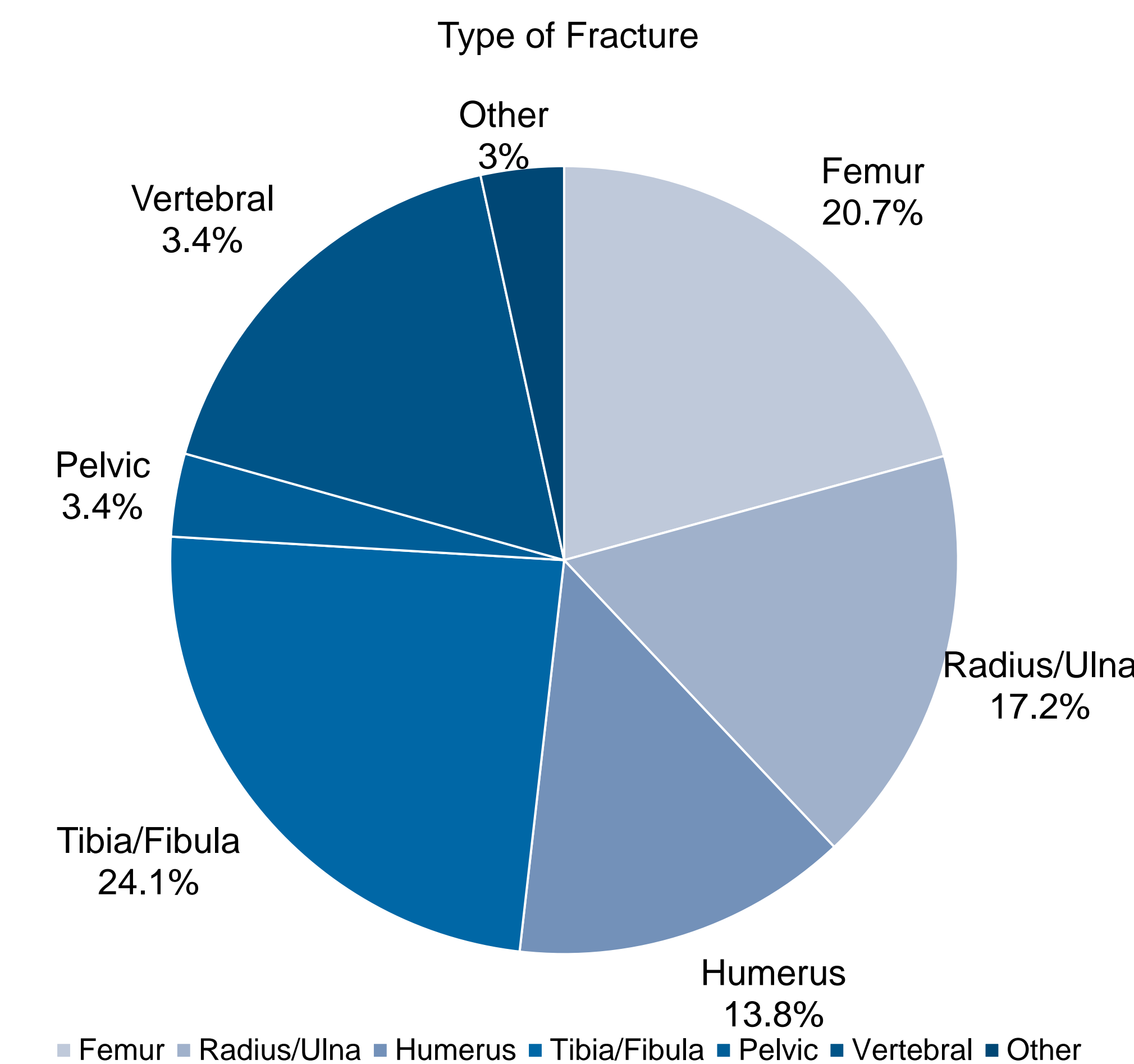
Setting and Sample

- The setting for this project was completed at a primary care centric ACO.
- Includes 12 independent physicians with collaborating advanced practice registered nurses and physician assistants.
- The specialties vary from internist, family, and geriatric primary care.
- The patient population enrolled in ACO are Medicare recipients.

Inclusion	Exclusion
Female patient between the ages of 50 and 85 years that have experienced a fracture	Fracture of finger, toe, face, or skull
	Women that had a BMD testing during the 24 months prior to fracture
	Women who had an active prescription to treat osteoporosis during the 12 months prior to the fracture.
	Woman who are living in a long-term care institution prior to fracture or receiving hospice care prior to index fracture.
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Results

Variable	M	SD	N=29
Age (50-85)	73.72	6.023	29
Diagnosis of Osteoporosis	No Yes		25 (86.2%) 4 (13.8%)
Pharmacologic Rx	No Yes		27 (93.1%) 2 (6.9%)
DXA at 6 months	No Yes		29 (100%) 0
Calcium	No Yes		22 (75.9%) 7 (24.1%)
Vitamin D	No Yes		21 (72.4%) 8 (27.6%)
Fall Prevention	No Yes		10 (34.5%) 19 (65.5%)
Home Health	No Yes Unknown		15 (51.7%) 13 (44.8%) 1 (3.4%)
Rehabilitation	No Yes Unknown		16 (55.2%) 11 (37.9%) 2 (6.9%)

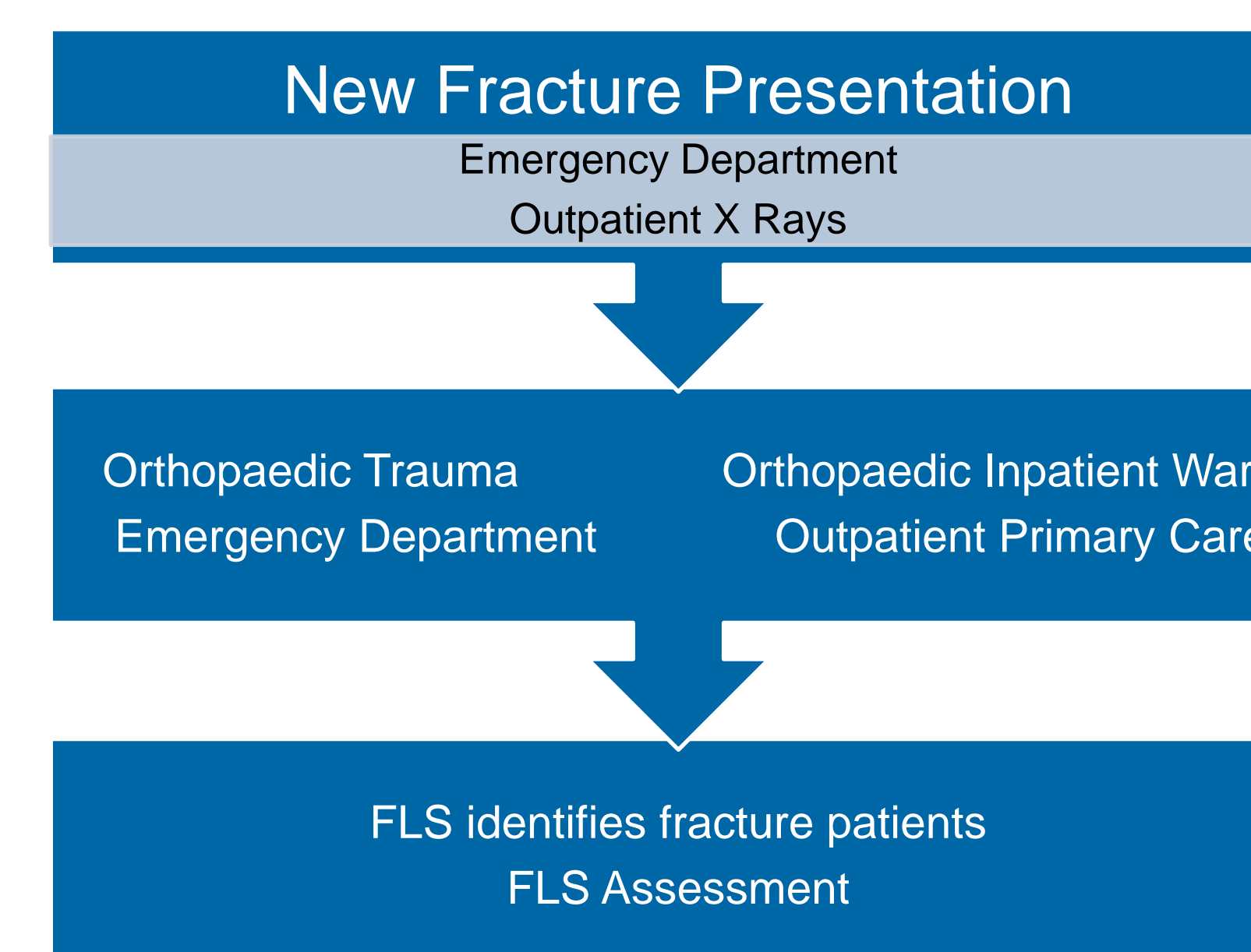


Implications for Practice

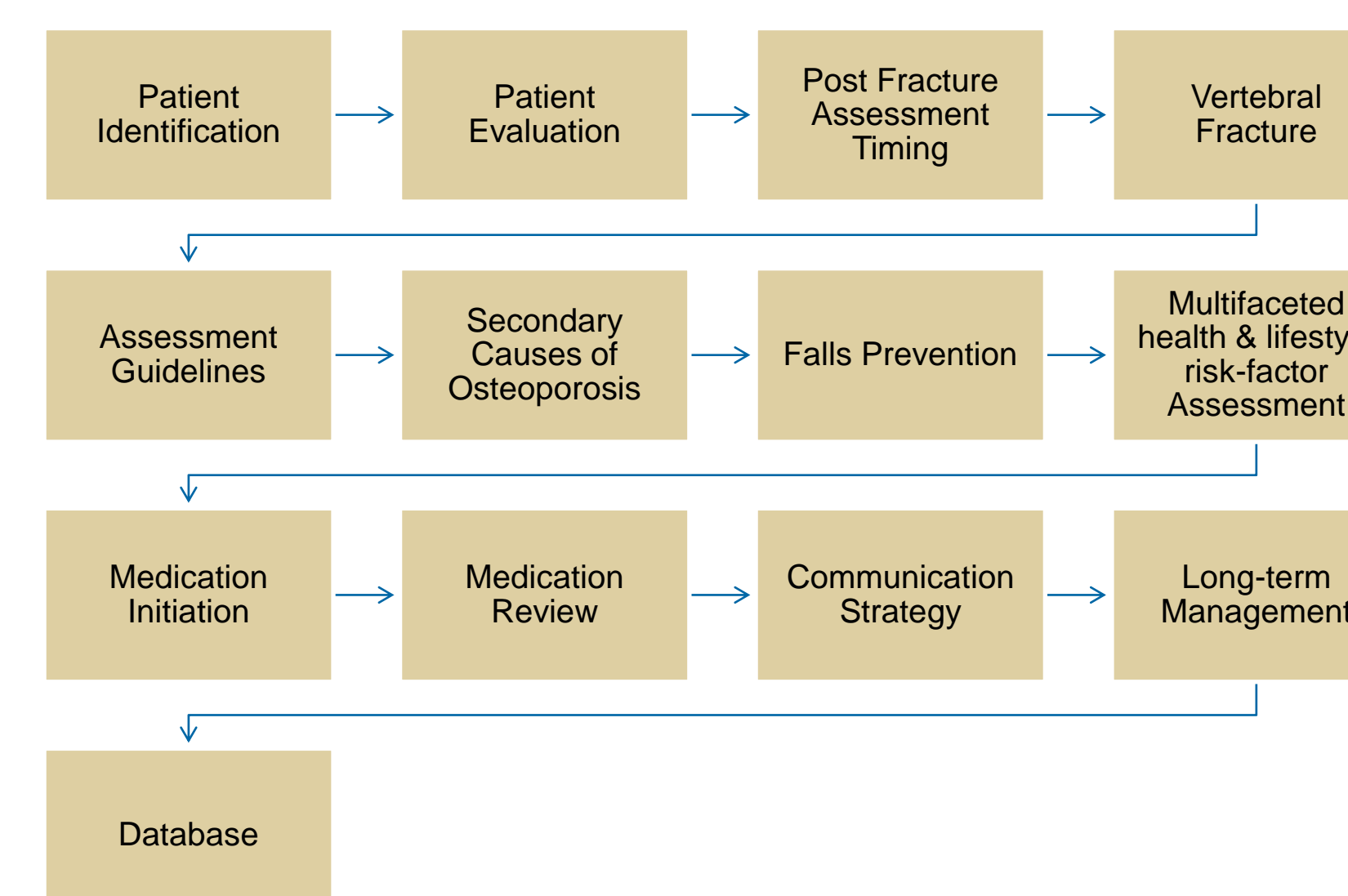
- The results of this project demonstrate the need for implementation of a Fracture Liaison Service to improve secondary osteoporosis management in women.



Fracture Liaison Service Model

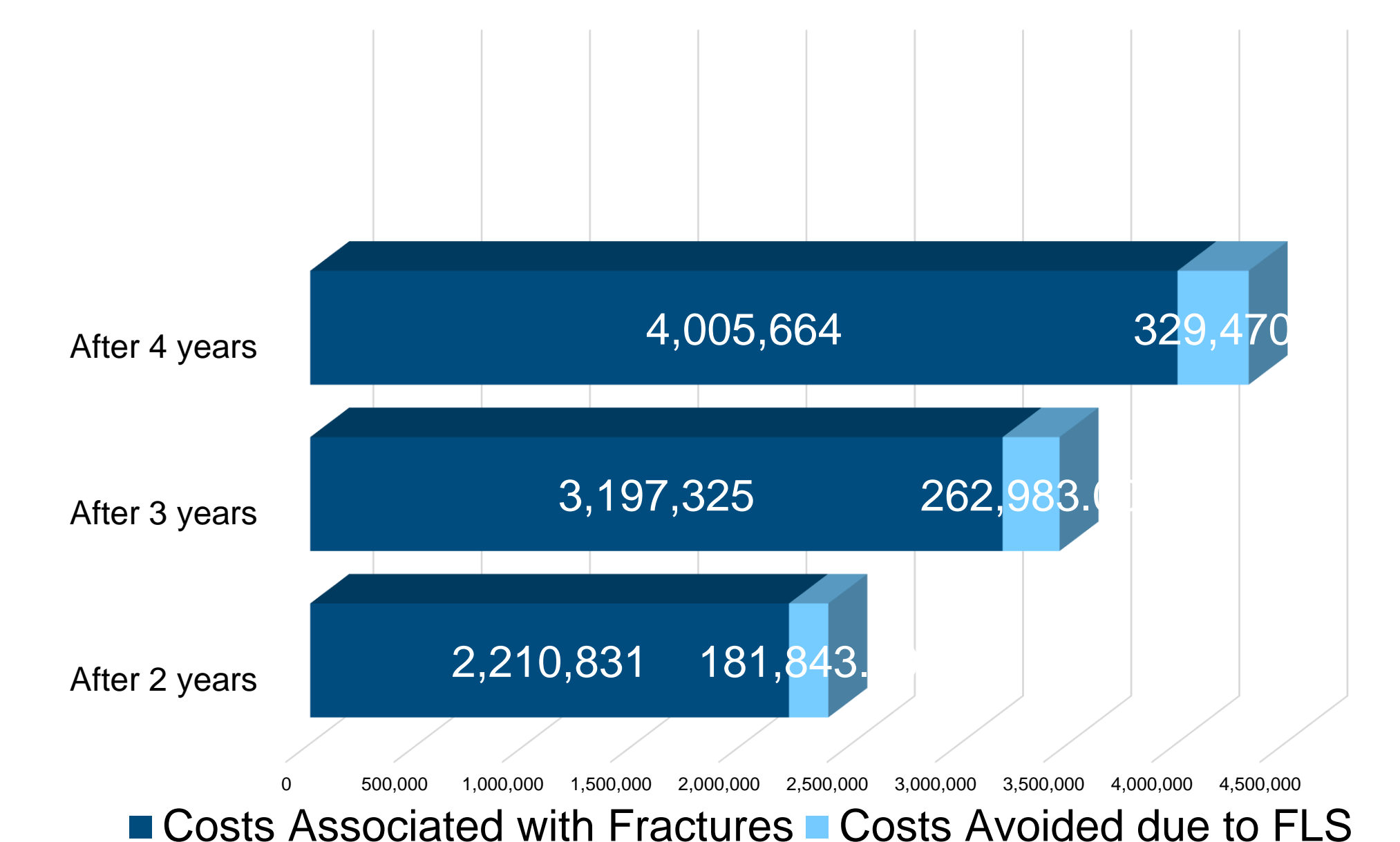


Capture the Fracture Best Practice Framework



Discussion

- Secondary retrospective chart review findings show a lack of osteoporosis management with patients that were excluded due to DEXA < 24 months of index fracture.
 - Excluded patients with a BMD indicating low bone mass (T score -1.0 to -2.5) with an index fracture were not appropriately managed for clinical osteoporosis.
 - Excluded patients with BMD indicating osteoporosis (T score > -2.5) with an index fracture were not appropriately managed.
- Future implications include partnering with local hospitals with community involvement and outreach education programs.



Limitations

Limitations include the small sample size due to exclusion criteria and acquired patient sample list.

Acknowledgements

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References

Available upon request.

