

## **Population Health Approaches to Orthopaedic Care: Early Results from a Collaborative Equity-Conscious Fragility Fracture Care Program**

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**INTRODUCTION:** Orthopaedic care increasingly recognizes the importance of population health and equity-conscious approaches. This is critical in managing fragility fractures via measures like fall prevention and osteoporosis treatment, urging the integration of comprehensive care programs that address these principles. This study presents ongoing results from a Fragility Fracture Care Program at our institution.

**METHODS:** This retrospective cohort study includes patients treated operatively for hip fractures between July 2023 and March 2025. Patients were part of a prospective 6-domain care program comprised of strengthening, bone health counseling, post-operative care coordination and comorbid condition control. Data on demographics and osteoporosis history and management were collected. Additionally, patients were screened for health-related social needs (HRSNs). Positive screenings were referred to supportive services.

**RESULTS:** A total of 391 operative hip fracture patients were included. Patient's racial/ethnic background was as follows: 81.6% White, 1.8% Asian, 14.6% Black, and 1.8% Hispanic. The mean age was 78.6, and average vitamin D level was 32.7. Within the cohort, 78 patients (19.9%) had received osteoporosis treatment at some point prior to their fracture. Following participation in the program, 151 patients (38.6%) were on osteoporosis medication after surgery. Of the total participants, 9.7% were referred to the On the Move fall prevention program. 80.3% of patients were screened for HRSNs, with 19.1% screening positively for at least 1 identified gap. Among those who screened positively, 22%, 15%, 13%, and 50% screened positive for food, transportation, housing, and financial insecurity risk, respectively. Of these, 8.4% of patients were subsequently referred to supportive services via a Medicaid 1119 Waive in our state. In this cohort, 10.2% of participants returned to the ED within 30-days post-op.

**DISCUSSION AND CONCLUSION:** Early results from this program demonstrate high referral rates to our bone health clinic with a marked increase in osteoporosis treatment. We also saw a notable prevalence of social needs and a high 30-day return to ED rate. Future analysis will assess the long-term effect of the program on secondary fracture prevention and the influence of social determinants on hip fracture outcomes.