Table E1: Program Logic Model for Fragility Fracture Osteoporosis Exemplary Care Program (OECP).

Program Objectives	1. Identify all inpatients and outpatients attending the hospital who have sustained a fragility fracture (a fracture sustained from a fall from standing height or less) of the wrist, shoulder, vertebrae, or hip. 2. Have the identified fragility fracture patients: i. referred to the Metabolic Bone Disease Clinic (MBDC) for further diagnostic assessment and treatment of their potential underlying bone disease ii. referred for a Bone Mineral Density (BMD) test iii. instructed to take vitamin D and calcium supplements, and may be prescribed a bone-building drug by their attending physician iv. educated on osteoporosis and its management 3. Determine the percentage of hospital fragility fracture patients who have previously been diagnosed with and treated for osteoporosis (OP). 4. Evaluate the successful implementation of this program.		
Target Populations	Orthopaedic inpatients who have sustained a fragility fracture	Fracture Clinic outpatients who have sustained a fragility fracture	Hospital staff/physicians who manage patients with fragility fractures
Resources/ Program Support Required	• Research staff • Orthopaedic surgeons/residents • Endocrinologists • Rheumatologists • Fracture Clinic orthopaedic technologists	• Unit charge nurses • Fracture Clinic nurse • Unit clinical leader manager • Unit pharmacists	• Fracture Clinic administrative staff • Metabolic Bone Disease Clinic staff • OECP Coordinator (OECPC)

Components	**Patient Identification**		**OP Treatment**		**OP Referral Outpatient & Inpatient**	**OP Education/ Awareness Outpatient & Inpatient**
Implementation Objectives	**Outpatient**	**Inpatient**	**Outpatient**	**Inpatient**		
	OECPC to screen outpatient list in the clinical database Outpatients to self-identify via recruitment poster OECPC to fill out OP screener and inform surgeon/ resident of fragility fracture pts	OECPC to identify inpatients on orthopaedic ward in the clinical database based on patient age and fracture location OECPC to contact residents regarding new inpatients	OECPC and/or attending physician to recommend vitamin D and calcium supplement Attending physician may prescribe bone-building medication	Unit pharmacist to review inpatient chart with resident and recommend vitamin D, calcium and bone-building drug for resident to prescribe to the inpatient OECPC to arrange consultation with an endocrinologist for complicated inpatients	OECPC to initiate physician/resident referral of the inpatient and outpatient fragility fracture patients to the MBDC for further OP assessment and treatment OECPC to initiate physician/resident referral of inpatient and outpatient fragility fracture patients for a BMD	OECPC to provide educational materials to inpatients and outpatients Inpatients and outpatients requested to voluntarily complete quality assurance package OECPC to work with and educate residents and hospital staff regarding patient identification
Outputs	Number of patients initially identified in each setting Number of patients refusing or accepting referral Number of patients without previous OP diagnosis and/or treatment Language needs of clients		Number of patients pharmacologically treated Number of patients for whom vitamin D and calcium were recommended		Number of patients referred to MBDC Number of patients attending scheduled appointment at MBDC Number of patients with OP diagnosis Number of patients receiving pharmacologic treatment for OP	Change in scores in OP knowledge, beliefs and self-efficacy Compliance with OP management Development of an OP continuum of care plan Greater awareness of fragility fracture patients and OP screening by staff
Short-Term Outcome Goals	1. Develop awareness by the hospital staff regarding the importance of identification of fragility fracture patients and their need for referral and treatment of their potential osteoporosis. 2. Increase referral rates of fragility fracture patients to the MBDC. 3. Develop awareness by patients that their fracture may be caused by an underlying bone disease. 4. Develop patient knowledge regarding osteoporosis and its management.					
Long-Term Outcome Goals	1. To increase preventive health behaviors in patients who have sustained a fragility fracture. 2. Lower rates of subsequent fracture in this high-risk patient population. 3. Lower fragility fracture-related health care costs for the hospital.					

Table E2. Socioeconomic demographics, osteoporosis perceptions and osteoporosis risk factors of all fracture patients who completed baseline questionnaire.

	Outpatients (n = 148)	**Inpatients (n = 47)**	**Total (n = 195)**
Socioeconomic Demographics			
Marital Status: Married/Common law	56/145 (39%)	9/47 (19%)	65/192 (34%)
Single/Divorced/Separated/Widowed	89/145 (61%)	38/47 (81%)	127/192 (66%)
Living Arrangements: Alone	63/145 (43%)	27/47 (57%)	90/192 (47%)
Spouse/Family/Roommate	78/145 (54%)	16/47 (34%)	94/192 (49%)
Nursing home/Health care facility	4/145 (3%)	4/47 (9%)	8/192 (4%)
Education: Up to grade 8	15/143 (10%)	7/47 (15%)	22/190 (12%)
High school	50/143 (35%)	19/47 (40%)	69/190 (36%)
College/University	78/143 (55%)	21/47 (45%)	99/190 (52%)
Employment Status: Full or part-time	46/144 (32%)	9/47 (19%)	55/191 (29%)
Previous bone mineral density test	83/145 (57%)	24/46 (52%)	107/191 (56%)
Perceptions Regarding Osteoporosis			
Previous awareness of osteoporosis	131/144 (91%)	43/47 (91%)	174/191 (91%)
Perception of bone health as 'normal'	71/142 (50%)	10/41 (24%)	81/183 (44%)
Perception that current fracture caused by osteoporosis	38/139 (27%)	17/43 (40%)	55/182 (30%)
Would take medication if diagnosed with osteoporosis	124/143 (87%)	43/45 (96%)	167/188 (89%)
Risk Factors for Osteoporosis			
Previous low-energy fracture	38/140 (27%)	11/47 (23%)	49/187 (26%)
Natural mother had a fragility fracture	34/143 (24%)	8/45 (18%)	42/188 (22%)
Natural father had a fragility fracture	9/148 (6%)	4/44 (9%)	13/192 (7%)
Currently smoking or smoked in the past	74/144 (51%)	31/44 (70%)	105/188 (56%)
Not physically active lifelong	47/141 (33%)	11/44 (25%)	58/185 (31%)