Appendix F: Sample Education Material

OSTEOPOROSIS

**CONTENTS:**
- Definition, Classification, Risk Factors, Diagnosis
- and Diagnostic Techniques

Signs and symptoms of osteoporosis

Osteoporosis is defined as a progressively systemic skeletal disorder, a disease of bone leading to an increased risk of fracture.

In osteoporosis, the bone mineral density (BMD) is reduced, bone microarchitecture is disrupted, and the amount and variety of non-collagenous proteins in bone is altered. Osteoporosis is a threat to women's health.

Types of osteoporosis:

Primary osteoporosis

Primary osteoporosis is a disease in which no underlying cause can be identified. It is mainly a disease of the elderly, the result of the cumulative impact of bone loss and deterioration of bone structure that occurs as people age. This form of osteoporosis is sometimes referred to as age-related osteoporosis.

Secondary osteoporosis

Secondary osteoporosis is that in which the underlying cause (e.g., steroid use) is known. Young adults and even older individuals who get osteoporosis often do so as a byproduct of another condition or medication use.

Risk factors of osteoporosis

Non-modifiable

- Age
- Sex
- Ethnicity
- Family History
- Personal History of Fracture

Potentially modifiable

- Tobacco and Cigarette Smoking
- Low Body Mass Index
- Alcoholism
- Insufficient Physical Activity
- Excess Physical Activity
- Heavy Metals
- Soft Drinks

Who should have bone density testing?

- All postmenopausal women below age 65 who have risk factors for osteoporosis; 
- Women aged 65 and older
- Postmenopausal women with fractures
- Although this is not mandatory because treatment may well be started regardless of bone density; 
- Women with medical conditions associated with osteoporosis. Those diseases number more than 50

Bone mineral density (BMD) test

BMD tests can:

- Detect low bone density before a fracture occurs
- Confirm a diagnosis of osteoporosis if you already have one or more fractures
- Predict your chances of having fractures in the future
- Determine your rate of bone loss
- Monitor the effects of treatment if the test is conducted at intervals of a year or more

Diagnostic osteoporosis:

The diagnosis of osteoporosis is made on measuring the bone mineral density (BMD). In addition to the detection of abnormal BMD, the diagnosis of osteoporosis requires investigations into potentially modifiable underlying causes: this may be done with blood tests and X-rays.

A primary care physician can scan a patient's list of medical illnesses to verify that one of these conditions is not present.

Women whose decision to use medication might be aided by bone density testing.

WHO Definitions of Bone Density Levels:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Bone Density (BMD)</th>
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<tbody>
<tr>
<td>Osteoporosis</td>
<td>T-score 2.5 SD or more below the young adult mean</td>
</tr>
<tr>
<td>Severe osteoporosis</td>
<td>Bone density is more than 2.5 SD below the young adult mean and there have been one or more osteoporotic fractures.</td>
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</tbody>
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