

# **Bone Mineral Density among Rural Community of Pyin Oo Lwin Township**

<sup>1</sup>Thida, <sup>2</sup>Thinzar Aung, <sup>1</sup>Kyaw Ko Ko Htet, <sup>1</sup>Kyaw Oo, <sup>1</sup>Yee Yee Myint, <sup>1</sup>Phyu Phyu Khaing, <sup>1</sup>Nwe Nwe Kyaw & <sup>3</sup>Yi Yi Myint

<sup>1</sup>Department of Medical Research (Pyin Oo Lwin Branch)

<sup>2</sup>Department of Public Health

<sup>3</sup>Department of Traditional Medicine

(Poster presented at 16th Mandalay Medical Conference 12-15 Jan.)

## **Abstract**

## **Abstract**

Prevalence of abnormal Bone Mineral Density (BMD) is increasing with the socio-economic development all over the world including Myanmar. Study on BMD status among rural community of Myanmar is still limited and this community based cross-sectional study was aimed to reveal the knowledge gap of BMD status and its associated factors. The study was conducted among 206 adults age 30 years and above from Pin Tee Village, Pyin Oo Lwin Township during 2015. Background characteristic was explored by using face-to-face interview method and quantitative Ultrasound (SONOST 3000) was used to measure the BMD. The BMD of T-score  $\geq -1$  was categorized as having normal BMD and below it was categorized as having abnormal BMD (osteopenia: T-score = -1.1 to -2.49 and osteoporosis: T-score  $\leq -2.5$ ). Forty-nine percent of the participants were age 50 years and above. Fifty-eight percent were female. Eighty-one percent were working as labourers and 23% have BMI  $> 24.9$ . Prevalence of abnormal BMD was 48% with 44% of osteopenia and 4% of osteoporosis. In bi-variate analysis, sex, age, occupation, marital status, BMI and being menopause are significant associated with having abnormal BMD at  $p < 0.05$ . However, in final model of multivariate analysis, those with abnormal BMD was significantly more likely to be female (AOR = 3.4,  $p=0.01$ ), married (AOR = 3.5,  $p=0.02$ ), and having income less than 150 000 Kyat per month (AOR = 2,  $p = 0.05$ ). In conclusion, nearly half of the study participants in the study area have abnormal BMD and preferably female, married and having income less than 150 000 Kyats per month should be favour to be targeted for implementing early diagnostic measure within the limited resources.