**Introduction**: Atrial fibrillation is the most common form of arrhythmia. The study was carried out to achieve the regional data in the prevalence of atrial fibrillation in the population aged 65 years and above by opportunistic screening in various states and divisions of Myanmar.

**Methods**: The heart rhythm of population (age ≥ 65 years) was studied by rhythm strip of ECG using AliveCor Heart Monitor and AliveECG app (Kardia Mobile) and palpation of radial pulse by investigator and 12-lead electrogram in subjects whose heart rhythm was mentioned as atrial fibrillation. Associated risk factors and comorbidities were determined by interviewing the subjects.

**Result**: In the study period from October 2017 to May 2019, a total of 1483 people aged 65 years and above underwent opportunistic screening and 120 (8.09 %) were detected to have atrial fibrillation by AliveCor. Among the people with AF, there was female preponderance (57.5 %) and 45 % were previously not known to have AF. Subjects with AF had more than 1 risk factors among which hypertension is most common (57.5 %), followed by coronary artery disease (23.3 %), Diabetes Mellitus (18.3 %), Heart failure (15 %) and stroke (8.3 %). 11.6 % of subjects with AF had underlying chronic rheumatic valvular heart disease and 23.3 % have no associated risk factor.

**Conclusion**: This study determined the population with newly diagnosed atrial fibrillation in the general population, which further directed towards clinical management and stroke prevention.