Introduction
Diabetes Mellitus (DM) is currently affecting around one in 10 people in Hong Kong. The prevalence ranges more than 20% in those older than 65 years. The incidence of DM is increasing, with more than half of them being undiagnosed especially in grassroots community. A grassroots community-based blood glucose survey & DM education program was held by Hong Kong Credible Care Volunteers Association HKCCVA (Nurse voluntary group) in 2015.

Objectives
1. To increase the awareness of blood glucose monitoring for elderly in grassroots community.  
2. To empower diabetic elderly through community patient education.  
3. To promote health awareness in the grassroots community through nurses voluntary groups.

Methodology
1. A grassroots community-based blood glucose survey  
   Participants: elderly ≥ 65 with fasting ≥ 8 hrs  
   Venue: NGO elderly centre x 12 and public estates x 5  
   Date: Jan – Dec 2015  
2. DM education programs  
   Participants: 15 elderly with DM, age ≥ 65  
   Venue: Aberdeen public estates  
   Date: 24 Jan – 28 March 2015  
   1.5hrs / class for 5 class were provided  
   Fasting blood glucose & body mass index (BMI) were measured before & after the programme  
   Content: DM knowledge, Drug Management, Diet Control, Exercise & Stress Management  
   Speaker: Nurse, Dietitian, Chinese Medicine Practitioner

Result
1. A grassroots community-based blood glucose survey  
   No. of participant: 363  
   【130 (35.8%) DM, 233 (64.2%) Non-DM】  
   Average age: 74.4  
   【74.8(65-92) DM, 74.1 (65-94) Non-DM】  
   Female gender: 254 (70%)  
   【89 (68.5%) DM, 165 (70.8%) Non-DM】  
   Average BMI: 24.5  
   【25.1 (17.4-35) DM, 24.1 (14.7-31.8) Non-DM】
Average Fasting blood glucose level (mmol/L): 6.8【6.3 (2.8-13.8) DM, 7.1 (3.6-21.1) Non-DM】
Fasting blood glucose level > 6 mmol/L : 177 (48.8%)【44 (12.1%) DM, 133 (36.6%) Non-DM】
Fasting blood glucose level > 10 mmol/L: 33 (9.1%) 【11 (3.3%) DM, 22 (6.6%) Non-DM】
Over weight (BMI >23) is common in the elderly especially DM (Average BMI >25)
More than 36% (Fasting blood glucose level > 6 mmol/L ) elderly is potential undiagnosed pre-DM patient.
More than 3% of the DM elderly unsatisfactory control blood glucose levels. (Fasting blood glucose level > 10 mmol/L)

2.DM education program
15 Participants
Characteristics
Age: 68-84 (average 74)
History of DM: From 20 years – 1 year (average 5.5 years)
Gender: Female 11(73%)

Result (Before & After Education Program)
Average fasting blood glucose level (mmol/L): Before 8.3, After 7.2
Body Weight (KG): Before 60.5, After 59.3
BMI: Before 25.6, After 24.9

DM education program help patients control blood glucose levels & body weight.

Conclusion
Regular blood glucose surveillance at grassroots community is suggested to identify undiagnosed DM.
Education program is the cornerstone of DM management where patients are empowered with appropriate knowledge and skills to live with the disease.
Nurses voluntary groups can help provide health education in community.
To facilitate health awareness, HKCCVA provides voluntary health promotion activities to service the grassroots community.