

## Three Year Pedometer Based Physical Activity Intervention of the Adult Population in Qatar

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**Abstract :** Background: Increased physical activity is associated with improvements in health conditions. Walking is recognized as an easy form of physical activity and a strategy used in health promotion. Step into Health (SIH), a national community program, was established in Qatar to support physical activity promotion through the monitoring of step counts. This study aims to assess the physical activity levels of the adult population in Qatar through a pedometer-based community program over a three-year-period. Methodology: This cross-sectional longitudinal study was conducted between from January 2013 and December 2015 based on daily step counts. A total of 15,947 adults (8,551 males and 7,396 females), from different nationalities enrolled in the program and aged 18 to 64, are included. The program involves free distribution of pedometers to members who voluntarily choose to register. It is also supported by a self-monitoring online account and linked to a web-database. All members are informed about the 10,000 steps/day target and automated emails as well as text messages are sent as reminders to upload data. Daily step counts were measured through the Omron HJ-324U pedometer (Omron Healthcare Co., Ltd., Japan). Analyses are done on the data extracted from the web-database. Results: Daily average step count for the overall community increased from 4,830 steps/day (2013) to 6,124 steps /day (2015). This increase was also observed within the three age categories (18-30), (31-45) and (>45) years. Average steps per day were found to be more among males compared with females in each of the aforementioned age groups. Moreover, males and females in the age group (>45 years) show the highest average step count with 7,010 steps/day and 5,564 steps/day respectively. The 21% increase in overall step count throughout the study period is associated with well-resourced program and ongoing impact in smaller communities such as workplaces and universities, a step in the right direction. However, the average step count of 6,124 steps/day in the third year is still classified as the low active category. Although the program showed an increase step count we found, 33% of the study population are low active, 35 % are sedentary with only 32% being active. Conclusion: This study indicates that the pedometer-based intervention was effective in increasing the daily physical activity of participants. However, alternative approaches need to be incorporated within the program to educate and encourage the community to meet the physical activity recommendations in relation to step count.

**Keywords :** pedometer, physical activity, Qatar, step count

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