

Urban Park as “Preventive Agency” for Non-communicable Diseases

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I . Introduction

On October 9th 2018, one material was shown by the subcommittee of the financial system conference of Ministry of Finance. The material says, “It is not quantitatively clear if preventive medicine is effective for saving medical and care cost. There are some indications that the cost can even increase.” [1] Around that time, there were several arguments that preventive medicine is not effective for saving medical cost. [2] On the background of this discussion, there is the problem of increasing of national health care cost, and the attempt to save it by Ministry of Health, Labor, and Welfare.

We, Park and Health Network Japan, feel strange about the argument that prevention can't save medical cost. This is because we are trying prevention by lifestyle improvement, instead of spending medical cost for preventive medical care. By utilizing urban parks for improving lifestyle, we can increase healthy people who don't depend on medicine or care. As a result, this would decrease medical cost. Urban parks should take a role of prevention. This is necessary also for keeping the social system which can give enough medicine for those who need it. If medical cost decreased, we want investment from the difference, for parks and greeneries, which can produce healthy lifestyle.

II . Making Urban Parks Preventive Agency

The biggest cause of death in Japan except for infection is smoking, the second is high blood pressure, and the third is lack of exercise. [3] Therefore, one of our objectives is to make young people, who will be the aged in 20-30 years, exercise regularly. The present percentage of people who exercise regularly is only about 30%. [4] How much we can increase this percentage will be an indicator. For example, if 10% of the citizens exercise regularly in a 1,000,000 population city, 33 public gyms are needed. [5] On the other hand, urban parks are already securing space for exercising. This is why we think urban parks can make important role.

Many organizations have already tried promotion of regular exercise, the percentage is still flat. This shows that promotion doesn't work as long as it depends on motivation of individuals. We are aiming for making cities which citizens can be healthy just by living in. To achieve this, in the first place, we are trying to make urban parks preventive agency.

The area comprehensive care system, which Ministry of Health, Labor, and Welfare is aiming for, is the system that people can receive medical, care, and preventive service in 30 minutes from their residence. Medical service is provided in hospitals by doctors, and care service is in nursing facilities by care workers. In contrast with these, neither facility nor profession for preventive service is shown. We have made some attempts and promotions to make urban parks “preventive agency,” which can change individuals' lifestyles and social factors which cause non-communicable diseases. WHO defines “health” as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” [6] Referring to this, we interpret “preventive agency” as “a

agency which can make citizens healthy enough to live active and enjoyable life.” We think urban parks can take this role.

III. Attempt to Make Urban Parks Preventive Agency

Our attempt mainly consists of 3 projects. First is a continuous support program of exercise, as a support which we can start in any parks. Second is arrangement of advisors to motivate individuals. Third is education of correct exercise method.

A. A continuous support program of exercise “Healthy Joy Club”

Everyone is worrying about their own health. Fun and effective continuous program is necessary to make this worry motivation for exercise. Therefore, we conduct “Healthy Joy Club,” a continuous support program of exercise, in order to make citizens exercise regularly.

An important point is that this provides regular exercise program, not a one day event. We are conducting exercise program, such as slow jogging or yoga, 5-20 times a month in 5 parks including Osaka prefectural Yamadaike Park, Tokorozawa Aviation Memorial Park in Saitama prefecture, and Oeda Park in Moriguchi city.

B. Arrangement of advisors called “Park Trainers”

While conducting Healthy Joy Club, we found that the number of participants and the retention rate are different between the parks, although there was no big difference in location, the skill of instructors, or advertisement. This is supposed to be because, in the parks which have a lot of participants, staffs make kind answers for the questions from the participants. When we conducted a health consultation service in parks, we found that many people have health problems if they don't have diseases. It seemed regular exercise can solve many of the problems.

We began arrangement of “Park Trainers.” “Park Trainers” directly communicate with park visitors, and help them begin regular exercise and live healthy lives. Trainers listen to the park visitors, check their health, and tell them improvement plans and the way how to continue that plan. Because citizens' lifestyles are different between individuals, the effective way of making them exercise regularly is also different. Trainers need to change the methods depending on the citizens' living spaces and occupations. Therefore, it is important to pattern lifestyles for the best physical activity, by analyzing various data such as cities' region data, individuals' lifestyles data, and physical activity data of different business types. By utilizing patterned data, trainers can effectively teach how and when to exercise.

C. Patterning lifestyles by individuals' correct amount of exercise

When you don't get enough exercise and want to change your lifestyle, it is hard to know correct amount of exercise for you, and how much you already exercise in daily life. Then, we made an application “Park Prescription for iPhone.”

We got this idea from the discussion with Dr.Zarr, a pediatrician in Washington, D.C. In the US, doctors cooperate with parks. Doctors can advise the park visitors how to exercise, but it is hard to know if the visitors keep exercising afterwards. This was a hint for our application development.

This application is different from conventional application, such as pedometer applications or calory calculator applications, in the point that it can calculate the correct amount of exercise for the users and show how much of the amount they achieved. In order to maintain or develop physical strength, it is necessary to exercise 3 hours a week. Visualizing the amount of exercise could be effective for efficiently keeping motivation and time for exercise.

IV. The Future of Urban Parks as Preventive Agency

WHO Western Pacific Region is promoting healthy cities. They focus on not only the first place, but also the second place. The first place means villages or community, which have the area comprehensive care system Ministry of Health, Labor, and Welfare is aiming for. The second place means schools, offices, hospitals, or markets. By adding the third place, which means open spaces in cities, we can make all these 3 types of places preventive agency. The citizens live not only in their own residences, but also in city public spaces, such as communities, networks, and open spaces. There are approximately 110,000 urban parks in Japan. What we need now is arrangement of trainers who can solve the social problems, and recognition of urban parks as “preventive agency.”

Ministry of Health, Labor, and Welfare and Ministry of Economy, Trade, and Industry are promoting health and productivity management to companies. The percentage of regularly exercising working-age people is still low, because of various restrictions and low interest for exercise. It is important to utilize urban parks as preventive agency, also for making working-aged people exercise regularly. Our challenge to make urban parks preventive agency has just started.

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