The General Public's Awareness of the Importance of Oral Health: Findings from a Community Survey in Japan

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1. Introduction

Living longer with good health is an ultimate goal of our human life. In modern society, health becomes one of the most important public concerns with a view of aging in place in our own community. Among a variety of health issues, oral health has become a more important issue than ever in aging societies. Oral problems have many aspects including salivary dysfunction, dental caries, periodontal disease, tooth loss, impairment of individual's ability to taste, chew and swallow, cancer, and so on. Recent studies further focus on different aspects including connections to possible diseases that are featured in several review papers (Beck and Offenbacher, 2005; Griffin, et al., 2009; Kandelman, et al., 2008; 8020 Promotion Foundation, 2005 & 2006). These problems will cause severe negative impacts on our quality of life. Even tooth loss is implied to be an indicator to predict death in old age (Ansai, et al., 2010). Morita and colleagues (2006) also reported that maintaining 20 natural teeth reduces the risk of death among Japanese elderly.

Like overall health, oral health depends on adequate health behaviors throughout a life course which indudes healthier habits at any age. The Japanese Ministry of Health, Labour and Welfare (MHLW) and the Japan Dental Association (JDA) jointly introduced the 8020 Movement. The movement has been encouraging the general public to maintain 20 or more own teeth at the age of 80 through proper oral health care approaches of prevention and treatment of oral diseases through a whole life. Later in 2000, the MHLW introduced Health Japan 21 (*Kenko Nippon 21*) to practice health promotion for better health and curb expanding health expenditure. It emphasizes the maintenance and improvement of oral function, prevention of tooth loss, reduction in the prevalence of dental caries and periodontal diseases, and periodic oral health checkups throughout life course. The MHLW further introduced the Health Promotion Law in 2013 which emphasizes the importance of oral health and its promotion in connection with one of the lifestyle-related diseases. The rates of those who have 20 teeth have improved over the past decades among middle-aged and older adults. According to the most recent national report, approximately 38% of older adults who are at age 80 have 20 or more of their own teeth in 2011,

improved from 24% in 2005, 15% in 1999, and 11% in 1993 (Ministry of Health, Labour and Welfare, 2006 & 2012).

At the sub-national level, the Hyogo Dental Association, as other dental associations in Japan, started promoting health to Hyogo prefectural residents through the key phrases of 'get healthy-start with oral health' and '8020 – long life with good health.' They have continuously committed to conducting a variety of health promotional activities to increase awareness of dental/oral health in a variety of settings in their local communities. By embracing the important concepts of the 8020 movement and integrated and comprehensive health care, the Hyogo Dental Association conducted a survey jointly with support from the National Health Insurance Organization of Hyogo to look at the effectiveness of the 8020 movement from 2001 to 2005. The survey attempted to: (1) clarify the relationship between oral health and general health conditions through disease diagnoses and (2) explore the effectiveness of the 8020 movement by examining annual individual medical expenditure and number of present teeth and dental occlusion (Hyogo Dental Association, 2005). Through the survey analysis, a variety of outcomes including the relationship between the number of teeth and annual medical expenditure and disease diagnoses, were reported (Hyogo Dental Association, 2003; Kanda, et al., 2008; Ueda, 2013).

It is believed that a certain level of dental treatment, preventive actions and behaviors have been contributing to the improvement of dental condition in later life. These can be an effort of public health approaches. In the past, there was a nation-wide internet consumer survey about dental care with a sample of 14,000 aged 20 to 79, excluding dental health care professionals (Dentsu, 2011). However, it is not known if the internet survey sample was a representative one. It may be useful for health promotional point of view to know people's knowledge and behavior toward oral health with a wider age range.

2. Materials and methods

To examine public awareness of the importance of dental and oral health in connection with general health and risk factors and also behaviors based on their oral health knowledge and concerns, we conducted a mail survey among the residents of Hyogo Prefecture in Japan. In addition to respondents' basic information about age, sex, and address (city of residence), the questionnaire asked about the knowledge/awareness of the relationship between dental/oral health and general health as well as its relationship with medical expenditure, and oral risk factors. The survey also asked about the presence of a personal dentist, presence of oral/dental problems, and present status of dental visit.

Approximately 680,000 copies of the questionnaire leaflet were distributed along with major

and local newspapers in Hyogo Prefecture on June 4th, 2012 by the Hyogo Dental Association. The leaflet indicated its submission deadline as June 10th, 2012, and 11,530 responses were received.

Among those, applicants from outside of Hyogo Prefecture and inappropriate responses including no responses on age and sex were excluded, after which 11,345 persons remained. The valid number of adult respondents for this study was 11,228 (2,433 men and 8,795 women, ages 20 and 99) among 11,530 responders.

Age was categorized into nine ten-year groups (less than age 20, 20s, 30s, 40s, 50s, 60s, 70s, 80s, and age 90 and over). Due to the small distribution of the age groups of less than 20 years old (117 persons, 1.0%) that also include possible answers by their parents and 90 years old and over (13 persons, 0.1%), these age groups were excluded from this study. As a result, 11,215 persons from 20 to 89 years of age remained for this study. The awareness of the relationship between dental/oral health and general health, knowledge and awareness of dental/oral risk factors, presence of current dental/oral problems and current dental treatment status were examined. For the overall differences between men and women, chi-square tests were conducted for all ages in this study based on simple 2 by 2 tables. Then, a series of age group differences and patterns were examined for men and women.

3. Results

The number of adult respondents between ages 20 and 89 was 11,215, dominated by women (2,426 men – 21.6% and 8,789 women – 78.4%). The numbers of women dominate in all age groups. The age groups between 40s and 60s dominated among respondents. The average ages are 60.6 (SD=14.3) for men and 52.2 (SD=13.5) for women.

Table 1. Distribution of the study sample, by sex, in ten-year groups (n=11,215)

Age group	20s	30s	40s	50s	60s	70s	80s	Total
Men	65	172	305	426	738	548	172	2,426 (21.6%)
Women	362	1,430	1,971	2,166	1,891	828	141	8,789 (78.4%)
Total	427	1,602	2,276	2,592	2,629	1,376	313	11,215 (100.0%)

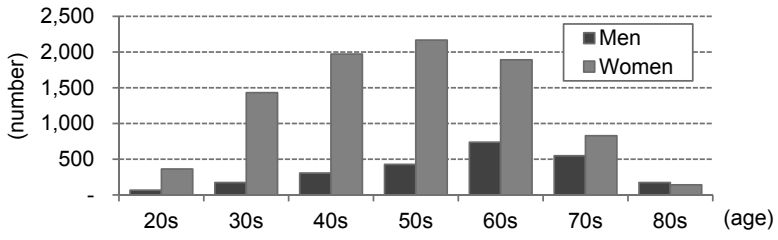

Figure 1. Age distribution of the study sample, by sex, in ten-year groups

Knowledge about the relationship between oral health and general health

Knowledge about the relationship between oral health and general health is better among women than men. In aggregate, approximately 92% of women know that dental or oral condition has some relationship with general health compared with 89% of men. Such knowledge generally increases with age from 80% of age 20s for both sexes and reaches 94% for men and close to 100% for women in the age of 80s.

Table 2. Knowledge of the relationship between dental/oral health and general health, by sex, in ten-year groups (n=11,215)

Age group	20s	30s	40s	50s	60s	70s	80s	Total
Men	52	146	273	367	657	499	158	2,152 (89.2%)
Women	292	1,227	1,792	2,017	1,766	787	136	8,017 (92.1%)
Total	344	1,373	2,065	2,384	2,423	1,286	294	10,169 (91.4%)

Table indicates those who answered 'yes'. 2x2 table chi-square (df=1): 19.87 (p=0.000)

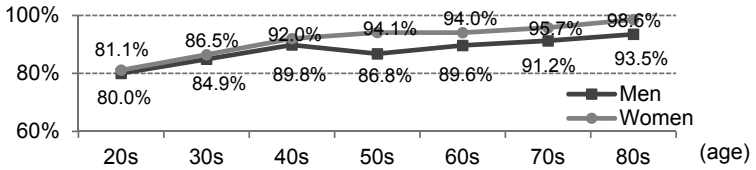

Figure 2. Knowledge of the relationship between dental/oral health and general health, by sex, by ten-year group

Knowledge about the relationship between number of teeth and medical cost

Approximately 48% of men and 40% of women know or are aware of the relationship between the number of teeth and medical expenditure as a whole. However, the percentage of such acquired knowledge differs by a factor of three, from 22% to 66%, among different age groups. Knowledge increases with age for both sexes. Men in younger and oldest groups show higher rate of knowledge than women. Age groups between 50s and 70s know almost in similar rates.

Table 3. Knowledge of the relationship between the number of teeth and medical expenditure, by sex, by ten-year group (n=11,215)

Age group	20s	30s	40s	50s	60s	70s	80s	Total
Men	22	51	118	171	358	326	112	1,158 (48.1%)
Women	78	344	651	894	935	484	83	3,469 (39.9%)
Total	100	395	769	1,065	1,293	810	195	4,627 (41.7%)

Table indicates those who answered 'yes'. 2x2 table chi-square (df=1): 52.12 (p=0.000)

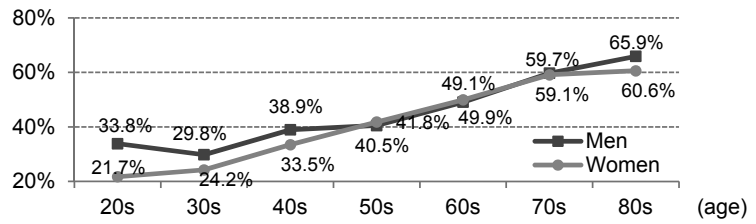

Figure 3. Knowledge of the relationship between the number of teeth and medical expenditure, by sex, by ten-year group

Personal dentist

As a whole, 80% of women report that they have their own personal dentist while 76% men report having a personal dentist. For the 20s age group, 57% men already have a stable personal dentist compared to 67% of women. The rates increase with age to a maximum of 88% for men and 92% for women.

Table 4. Number and rates of individuals having a personal dentist, by sex, by ten-year group (n=11,215)

Age group	20s	30s	40s	50s	60s	70s	80s	Total
Men	36	100	184	298	570	478	142	1,808 (75.5%)
Women	238	990	1,453	1,722	1,654	754	117	6,928 (79.9%)
Total	274	1,090	1,637	2,020	2,224	1,232	259	8,736 (78.9%)

Table indicates those who answered 'yes'. 2x2 table chi-square (df=1): 21.77 (p=0.000)

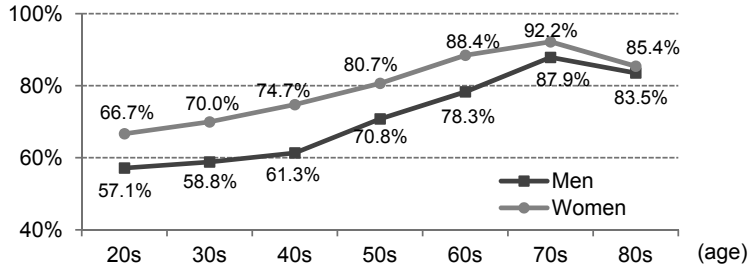

Figure 4. Number and rates of individuals having a personal dentist, by sex, by ten-year group

Presence of a dental/oral problem

More than one-third of adults report that they have a present dental/oral problem. Men answered a slightly higher rate of oral problem than women, 39% and 35%, respectively ($p<0.001$). The presence of dental or oral problem increases with age up until the 60s for men and 50s for women, then decreases. Fewer men report present dental/oral problem than women at younger ages. However, the rate becomes slightly higher for men in their 40s and older.

Table 5. Number and rates of individuals who report a present dental/oral problem, by sex, by ten-year group (n=11,215)

Age group	20s	30s	40s	50s	60s	70s	80s	Total
Men	18	53	104	169	318	211	68	941 (39.2%)
Women	120	453	637	830	659	285	48	3,032 (35.1%)
Total	138	506	741	999	977	496	116	3,973 (36.0%)

Table indicates those who answered 'yes'. 2x2 table chi-square (df=1): 13.99 (p=0.000)

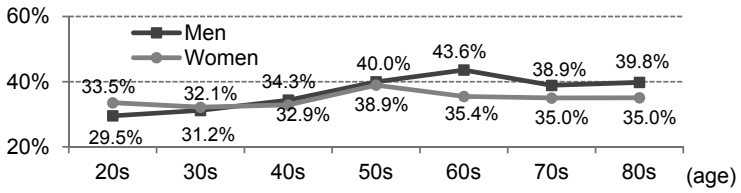

Figure 5. Rates of individuals who report present a dental/oral problem, by sex, by ten-year group (n=11,215)

Current dental visit

Close to half of both men and women report that they are currently visiting dental clinic for some reason. The rates of dental clinic visits gradually increase with age. No statistically significant difference is seen between men and women.

Table 6. Number and rates of individuals who are currently visiting dental clinic, by sex, by ten-year group (n=11,215)

	Dental visit	20s	30s	40s	50s	60s	70s	80s	Total
Men	No	36	105	173	218	371	238	88	1,229 (51.2%)
	Yes	29	64	129	204	358	306	82	1,172 (48.8%)
total		65	169	302	422	729	544	170	2,401 (100.0%)
omen	No	204	759	1,072	1,088	877	360	57	4,417 (51.0%)
	Yes	155	656	867	1,043	992	454	79	4,246 (49.0%)
total		359	1,415	1,939	2,131	1,869	814	136	8,663 (100.0%)

2x2 table chi-square (df=1): 0.03 (p=0.87)

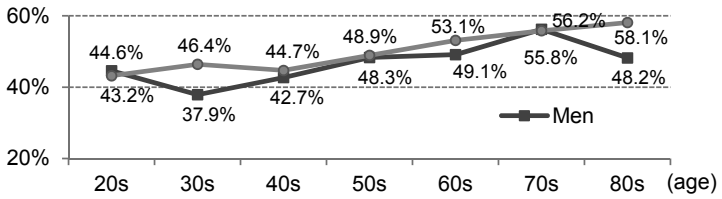

Figure 6. Rates of individuals who are currently visiting dental clinic, by sex, by ten-year group (n=11,215)

Those who report that they have a dental or oral problem are further examined if they are currently visiting a dental clinic. Among those who have a dental or oral problem, approximately 65% of men and women report that they are currently visiting a dental clinic. Although the rates of visiting a dentist are higher than the groups with and without a dental problem in all age groups, similar patterns of age difference are seen for both sexes.

Table 7. Number and rates of individuals who report a dental/oral problem and are currently visiting dental clinic, by sex, by ten-year group (n=3,973)

Age group	20s	30s	40s	50s	60s	70s	80s	Total
Men	12	34	65	106	193	147	44	601 (64.3%)
Women	75	278	416	525	434	202	40	1,970 (65.4%)
Total	87	312	481	631	627	349	84	2,571 (65.1%)

Table indicates those who answered 'yes'. 2x2 table chi-square (df=1): 18.87 (p=0.000)

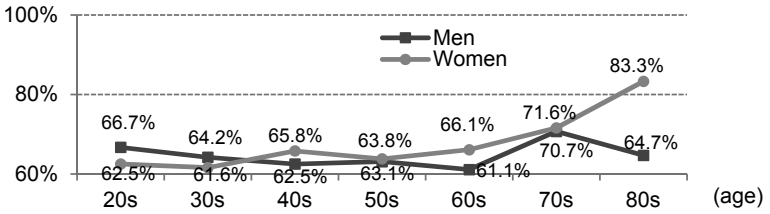

Figure 7. Rates of individuals who report a dental/oral problem and are currently visiting dental clinic, by sex, by ten-year group

Knowledge/awareness of dental/oral risk factors

Regarding the knowledge and awareness of factors that lead to dental and oral problems, the survey asked about six issues: brushing of teeth; proper dietary practice; smoking; drinking alcohol; adequate sleeping; and frequency of visits to a dental clinic.

- Brushing of teeth

Both men and women know that daily teeth brushing reduces the risk of dental and oral problem at very high rates (95% for men and 97% for women). However, the rates of knowing about teeth brushing to reduce a dental/oral risk factor slightly decrease with age for both sexes. Close to a five percent difference is seen between those who are in their 20s and 80s. Overall, there is no statistically significant difference between men and women.

Table 8. Respondents who consider brushing of teeth reduces a risk of dental/oral problem, by sex, by ten-year group (n=11,215)

Age group	20s	30s	40s	50s	60s	70s	80s	Total
Men	64	168	302	406	700	517	158	2,315 (95.4%)
Women	355	1,407	1,908	2,111	1,836	792	132	8,541 (97.2%)
Total	419	1,575	2,210	2,517	2,536	1,309	290	10,856 (96.8%)

Table indicates those who answered 'yes'. 2x2 table chi-square (df=1): 0.38 (p=0.56)

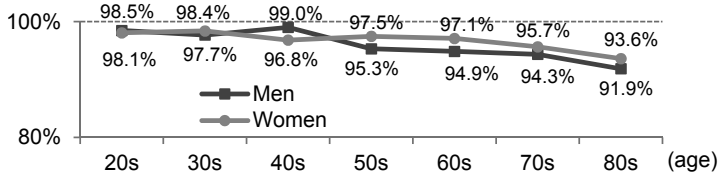

Figure 8. Respondents who consider brushing of teeth reduces a risk of dental/oral problem, by sex, by ten-year group

- Dietary practice

Typically, men are less aware of the influence of dietary practice on oral condition than women are. Overall, while 51% of women know the importance of dietary practice to reduce the risk of oral problems, only 36% of men are aware of it. Although the rate of awareness of this issue is stably known among women, men indicate a gradual decerase of awareness with age. Men are less concerned with this issue than women to a statistically significant degree ($p<0.001$).

Table 9. Respondents who consider good dietary practice reduces a risk of dental/oral problem, by sex, by ten-year group (n=11,215)

Age group	20s	30s	40s	50s	60s	70s	80s	Total
Men	32	71	130	152	252	176	51	864 (35.6%)
Women	192	754	1,021	1,082	939	412	73	4,473 (50.9%)
Total	224	825	1,151	1,234	1,191	588	124	5,337 (47.6%)

Table indicates those who answered 'yes'. 2x2 table chi-square (df=1): 177.95 (p=0.000)

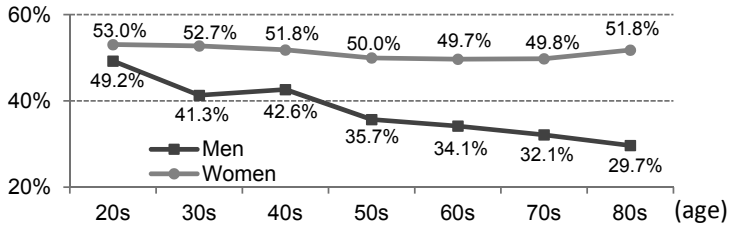

Figure 9. Respondents who consider good dietary practice reduces a risk of dental/oral problem, by sex, by ten-year group

- Tobacco use

Smoking tobacco is a risk factor for deteriorating dental/oral condition. Both men (18%) and women (19%) know that smoking tobacco is an oral risk factor. While almost one-quarter of the youngest group of men and women in their 20s know the issue of smoking, awareness decreases with age.

Table 10. Respondents who consider tobacco use is a risk factor of dental/oral problem, by sex, by ten-year group (n=11,215)

Age group	20s	30s	40s	50s	60s	70s	80s	Total
Men	16	37	77	87	111	90	22	440 (18.1%)
Women	103	316	402	403	267	120	23	1,634 (18.6%)
Total	119	353	479	490	378	210	45	2,074 (18.5%)

Table indicates those who answered 'yes'. 2x2 table chi-square (df=1): 0.26 (p=0.64)

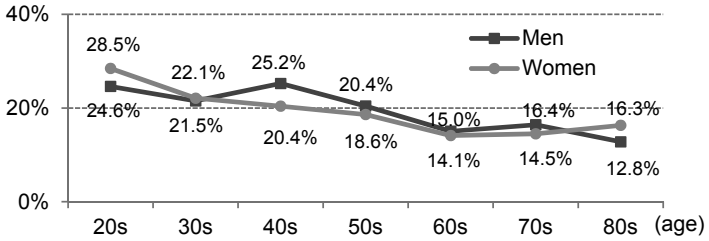

Figure 10. Respondents who consider tobacco use is a risk factor of dental/oral problem, by sex, by ten-year group

- Alcohol consumption

Drinking alcohol as a risk factor of dental/oral health is not well known among any age group for both sexes. The highest awareness rates are seen for the age groups of 20s and 40s (11%) for men and 20s (12%) for women. The rates generally decline with age, and no statistically significant difference is seen between men and women.

Table 11. Respondents who consider alcohol use can be a risk of dental/oral problem, by sex, by ten-year group (n=11,215)

Age group	20s	30s	40s	50s	60s	70s	80s	Total
Men	7	14	34	32	34	29	7	157 (6.5%)
Women	42	140	159	131	85	36	6	599 (6.8%)
Total	49	154	193	163	119	65	13	756 (6.7%)

Table indicates those who answered 'yes'. 2x2 table chi-square (df=1): 0.36 (p=0.58)

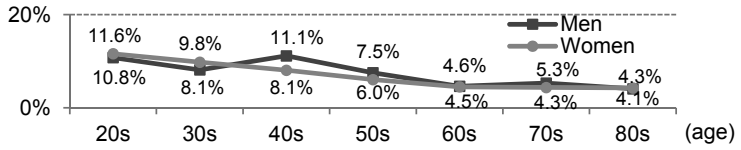

Figure 11. Respondents who consider alcohol use can be a risk of dental/oral problem, by sex, by ten-year group

- Adequate sleep

Adequate sleep as a factor to maintain good dental/oral condition is known by 16% of men and 18% of women. For each age group, the rates are similar from age 40 to the 60s for both sexes. Women show higher rates at younger and older ages ($p<0.05$).

Table 12. Respondents who consider adequate sleep can reduce a risk of dental/oral problem, by sex, by ten-year group (n=11,215)

Age group	20s	30s	40s	50s	60s	70s	80s	Total
Men	9	27	64	70	112	89	20	391 (16.1%)
Women	70	301	390	348	290	158	25	1,582 (18.0%)
Total	79	328	454	418	402	247	45	1,973 (17.6%)

Table indicates those who answered 'yes'. 2x2 table chi-square (df=1): 4.65 (p=0.03)

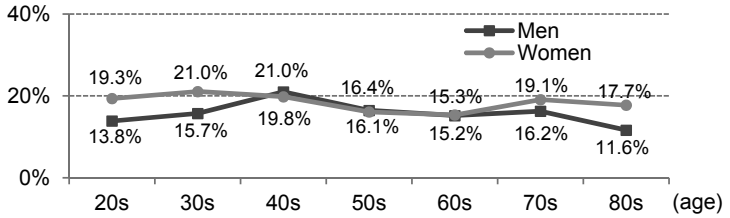

Figure 12. Respondents who consider adequate sleep can reduce a risk of dental/oral problem, by sex, by ten-year group

- Importance of regular dental clinic visit

As a group, women respond at a higher rate of the importance of periodical visit of dental clinic than men with statistical significance at $p<0.001$. In average, the rates are 82% for women and 70% for men. The awareness rate increase with age until the 60s and decline in a somewhat similar pattern for both sexes.

Table 13. Respondents who consider proper dental office visits can reduce a risk of dental/oral problem, by sex, by ten-year group (n=11,215)

Age group	20s	30s	40s	50s	60s	70s	80s	Total
Men	36	109	209	276	546	402	115	1,693 (69.8%)
Women	278	1,162	1,625	1,813	1,602	639	102	7,221 (82.2%)
Total	314	1,271	1,834	2,089	2,148	1,041	217	8,914 (79.5%)

Table indicates those who answered 'yes'. 2x2 table chi-square (df=1): 178.51 (p=0.000)

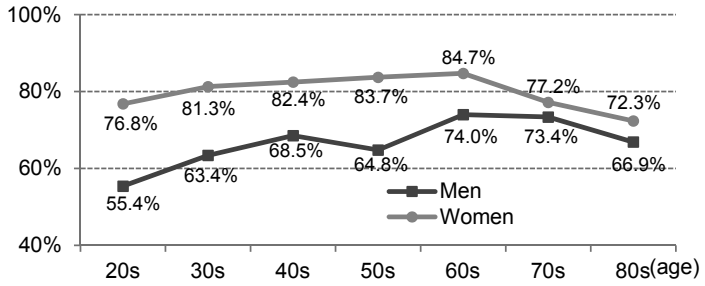

Figure 13. Respondents who consider proper dental office visits can reduce a risk of dental/oral problem, by sex, by ten-year group (n=11,215)

4. Discussion

Like sensory impairments, dental and oral health problems may cause not only physiological deterioration but also diminish social functioning with negative impacts on oral communication, facial expression, and appearance. Accumulation of knowledge for better health and its application in daily practice can make a difference in later life. We can avoid some risk factors of dental and oral health, including refraining from smoking, excess alcohol consumption, practice proper oral hygiene self-care, and regular dental checkup and use professional dental services.

Knowledge and awareness of health increases as we age with experience if they are received for a long period of time, in general. However, information that has only recently been revealed, such as the relationship between oral health and general health and also number of teeth and overall medical expenditure, may not be subject to accumulation for a life time period at this moment. Therefore, the increasing patterns for the rate of knowing such relationship with age for both sexes imply that older people are more aware of dental condition and medical expenditures they may pay out of pocket. According to a past study conducted by Dentsu Public Relations, Inc. (2011), commissioned by the Japan Dental Association, that covered 14,000 samples (56.7% men and 43.3% women), 10% of them knew the relationship between oral health and general health in detail, and 74% reported that they had heard about such relationship. This figure is similar to the result of this study. Although the detailed connection of dental status with impacts on general health have not been long known to the general public, they are already well acknowledged by general public. The relationship between oral health and general health is a high public concern. This success is largely reliant on public health education.

The report by Dentsu indicates 55% of those between their 20s and 70s reported some kind of abnormality in their mouths. According to the report, their major oral problems were of food becoming stuck between teeth, tooth staining, dental tartar, smarting tooth pain, bad breath, and

others. In this study, the rate who reported an oral problem was 36% which is much lower than the outcome of the Dentsu study. There may be minor concerns of oral problems to increase the rate. The patterns of rate changes are similar for men and women in both studies.

The rates of regular dental checkups become higher with age in both sexes. The rate of having a personal dentist is 65% in the Dentsu study while a higher rate of 79% is seen in this study. Since younger age groups show much higher rates in both sexes in this study, these groups may represent a higher awareness of dental concerns, and their behavior may be responsible for the higher result. According to the previous study, having a personal dentist required overcoming some issues such as easy access, satisfaction of treatment skills and strategy, personality and expected correspondence, accumulation of trust, and so on.

In this study, almost half of both men and women report current dental visits with a range from almost 40% to 60% in each age group. Even though they have a dental/oral problem, more than 30% of them, especially aged 60s and less for both sexes, are not visiting a dental clinic. This suggests that some minor dental or oral problems are not subject to professional treatment. It may be also considered that individuals in labor force ages may not have enough time to visit a dental clinic as they assume it is not an urgent issue. A certain number of people have their own personal dentists, and the rate increases with age for both sexes. However, this does not necessarily relate to a certain visit of a dental clinic when they have a dental or oral problem. It is important to clarify why a certain number of people with a dental/oral problem do not visit a dental clinic. Their own decision not to visit a dental clinic shall be clarified to reduce an immediate problem and enhance their health knowledge at dental clinic. There may be some environmental factors that cause them to refrain from visiting a dental clinic such as work condition and low perceived significance of the problem.

Among the six factors for avoid dental/oral problems, the rate of awareness and knowledge is the highest in this study for tooth brushing, followed by dental visits, dietary practice, lower tobacco use, proper sleep, and lower alcohol consumption. The averages of these rates vary widely among different age groups for men and women. It seems that people are strongly aware of dental/oral risks through their daily dental care experiences. On the other hand, the oral risk factors may let them infer associations of non-oral issues. The rates of awareness for dental visit and dietary practice are significantly lower for men than women. The gap increases with age for dietary practice and decreases with age for dental clinic visits. It is expected to narrow their knowledge gap as well as unfavorable behavioral differences. Since awareness of all of these dental/oral risk factors is important in our daily life, health promotional activities play an important role in community health. In this regard, exploration of how to increase awareness of dental/oral risk factors for which this study shows low profiles is needed. It may be necessary to conduct health education not only from a dental health-centered approach but also from a non-dental approaches

by different experts including municipal and prefectural officials. Health education by utilizing all concerned experts can contribute to the accumulation of knowledge and increase the relevant awareness directly and indirectly to oral heath in different life states or age groups in a variety of approaches.

5. Conclusion

Public health is important to increase the awareness of health and accumulate knowledge in the general public, and health education plays an important role. Oral health professionals such as dentists and oral hygienists are important oral health informants. In other words, it is important to instill a notion of having a personal dentist or home dentist for the purpose of not only preventing dental problems and oral diseases but also to enhance health knowledge though health education from a public health point of view. This will be effective if a widespread positive image of oral health experts is common in the general public. With an awareness of the importance of teeth and their connection to general health, the importance of a personal dentist will be considered favorably. This will lead to regular dental checkups and prevention of not only dental problems and oral diseases but also other relevant diseases beyond oral health in a holistic health approach. Some studies indicate that it is important to disseminate useful health information and conduct proper health promotion in different ages (Chieko, 2002; Saito and Kawaguchi, 2002; Yanagisawa, et al., 2005; Aizawa, et al., 2011; Ueno, et al., 2012). Therefore, health education in a community should be continuously emphasized and continued in the future.

To enhance awareness and knowledge about the importance of dental and oral health as well as general health, it is essential to apply public health approaches in a variety of ways. According to the U.S. Institute of Medicine (1988), the public health approach to health problems in a community is a five-step process: (1) define the problem, (2) identify its risk factors, (3) develop and test community-level interventions to control or prevent the cause of the problem, (4) implement interventions to improve the health of the population, and (5) monitor those interventions to assess their effectiveness. Public health can play an important role in maintaining our quality of life (QOL) though these steps with evaluation and feedback. However, public health often depends on the politics of decision making. Public health is an abstract concept that is not well understood and is often neglected especially in the political arena. Therefore, in addition to traditional public health approaches, the continuation of grassroots bottom-up educational approach should be taken into account for our future better life.

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The General Public's Awareness of the Importance of Oral Health: Findings from a Community Survey in Japan

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Oral health is one of the most important public concerns in modern society. Recent studies have revealed the possible connection of oral health to general diseases, negative impacts on quality of life, and even to death. Like overall health, oral health depends on adequate health behaviors, which include healthier habits at all ages throughout one's life.

This study attempts to examine public awareness of the importance of dental and oral health in connection with general health and risk factors as well as behaviors based on oral health knowledge and concerns. A mail survey was conducted with residents of Hyogo Prefecture in Japan in June 2012.

The results showed that the rates of knowledge about and awareness of the relationship between oral health and general health are higher among women than men. These rates generally increase with age. Approximately 40 to 50% of women and men know about or are aware of the relationship between number of teeth and medical expenditure as a whole. More than one-third of people reported the presence of an oral problem. In terms of measures for avoiding dental/oral problems, people were found to be most aware of tooth brushing, followed by dental visits, dietary practices, avoiding tobacco use, proper sleep, and avoiding alcohol consumption.

From a public health point of view, further exploration is needed regarding how to increase awareness of dental/oral health and their risk factors by providing proper information for low profile people and to narrow the gaps between men and women and among different age groups in order to increase the rates of knowledge and awareness. Health promotional activities, especially educational ones, play an important role in community health. In this regard, health education is required not from a dental-health-centered approach, but from non-dental approaches that stem from different non-traditional professions.