Who chooses prepaid dental care?

- A prospective observational study of the determinants of the choice between prepaid (capitation) and fee-for-service systems in Swedish dental care

CHARLOTTE ANDRÉN ANDÅS Corresponding author

Dept. of Behavioral and Community Dentistry, Institute of Odontology, Sahlgrenska Academy, University of Gothenburg, Göteborg, Sweden.

charlotte.andren-andas@odontologi.gu.se

MAGNUS HAKEBERG

Dept. of Behavioral and Community Dentistry, Institute of Odontology, Sahlgrenska Academy, University of Gothenburg, Göteborg, Sweden.

magnus.hakeberg@odontologi.gu.se

Abstract:

Background An optional capitation prepayment system has been implemented in Swedish dental care, supplementary to the traditional fee-for-service scheme within the Public Dental Service. The implementation of a new system may have a variety of preferred and adverse effects, arguably dependent on the individual patient’s attitudes, health beliefs and course of action.
The aim of this study was to describe potential differences regarding socioeconomic and lifestyle factors, perceived oral health and attitudes towards oral health between patients in the two payment systems. **Methods** Questionnaire data were consecutively collected from 13,719 regularly attending patients at 20 strategically selected clinics within the PDS in the Region Västra Götaland, before they were offered the choice between the traditional and the new payment system. **Results** Capitation patients were more often female and well educated. They had healthier habits, felt more motivated to follow self-care advice, more often assessed their oral health as being very good and more often considered oral health as being very significant for their wellbeing. The results were statistically significant and showed a gradient. **Conclusions** The more explicitly affirmative the answer, the more likely the patient seemed to be to choose the prepayment scheme. There seems to be a pattern of differences between patients choosing either a capitation system or a fee-for-service system with respect to important individual views on oral health. These differences may be regarded as important when assessing outcomes in the new payment system and in public dental care.

**Key words: Capitation, Fee for service, Dental insurance, Oral health, Lifestyle**

**Background**

The organization of dental care financing differs widely between geographical areas and between countries [1]. In Scandinavia as a whole, and in Sweden in particular, the average degree of public involvement over time has been comparatively high. In Sweden, a National Dental Insurance scheme that reimbursed all types of dental care treatment was introduced in
The scheme covered all residents in Sweden and allowed both private and public dental care suppliers. The aim was to make dental care accessible to all residents on equal terms, thereby realizing a social policy stance with the objective that social class should not be obvious from looking at a person’s teeth [2]. At the start, the coverage was far-reaching; the reimbursements amounted to 50% of dental care costs up to SEK 1000, and up to 75% for costs above that level, based on fixed tariffs that were mandatory to all caregivers. As a response to the gradually increasing costs of the insurance, the percentage that was reimbursed to the patient was gradually reduced. The scheme was reconstructed in 1999, towards a lower degree of reimbursement for basic oral health care for all, irrespective of dental care need.

Dental care in Sweden is provided by the Public Dental Service (PDS), which is organized by the local county councils, and by private practitioners. The Region Västra Götaland, from which the data in the present study were collected, has an adult population of about 1.2 million inhabitants, approximately 45% of whom are registered with the PDS. Dental care providers in Sweden have traditionally been reimbursed on a fee-for-service basis. In 1999, the law was changed to allow providers to also offer prepaid dental care, implying a capitation payment system, to their adult patients [3]. As a result, the Public Dental Service in a few county councils introduced their own version of a capitation payment scheme, which initially gained some ground [4]; however, after ten years, the scheme did not cover more than about 5% of the adult population. In 2010, a uniform capitation payment scheme was implemented nationwide by all 21 Swedish Public Dental Service organizations in the respective county councils. This uniform capitation payment system involves signing a three-year contract with the caregiver to pay a fee differentiated by risk, and maintain an individually designed self-care plan in exchange for receiving all necessary basic dental care; thus corresponding to a
dental insurance policy. As of 2013, 25-30% of all adult patients receiving dental care from the PDS in Region Västra Götaland are included in the capitation system.

The introduction of a supplementary optional insurance-like payment system in Swedish dental care corresponded to the development of reimbursement models within the health care system, aimed at satisfying the simultaneous requirements of cost containment and quality improvement [5, 6]. It could be assumed that the introduction of the capitation payment system would lead to changing incentives for patients as well as caregivers, thereby altering the volume both of requested and provided dental care in general, and preventive dental care in particular [7, 8]. Furthermore, access to a new optional payment system may encourage the patients to make their own (informed) decisions, and may also contribute to advances within patient participation and empowerment with regard to their oral health. From an economic theory perspective, it would be expected that those who choose the capitation payment system rather than the fee-for-service system; i.e., those who choose a voluntary health insurance policy, would be those with a higher than average risk of needing dental care [9]. However, empirical studies of the demand for voluntary health insurances generally fail to find support for such a relationship [10-13]. On the contrary, insured individuals tend to be healthier, younger and better educated than those who are uninsured [14, 15].

The choice of health care insurance was traditionally described according to the maximum utility model [9] and was thereby considered to be a function only of the expected expenditure and care demand. Later, it has become increasingly obvious that factors other than the strictly theoretical assumptions also influence the decision whether or not to buy a health insurance; factors such as those involved in making individually rational decisions based on adequate information. Thus, additional explanatory variables; for examples age, sex, level of education, anticipated future health, and satisfaction with the present provider of care [16], in addition to
the strictly economical variables of price, deductibles and out-of-pocket payments, have become increasingly important. Reports on the influence of variables related to individual characteristics on the choice of insurance are, however, sparse, and, when available, most often apply to the U.S market.

The results from a randomized study, one of very few looking into dental insurance schemes, indicated that a more generous insurance coverage was correlated to improved oral health for patients younger than 35 years of age, and especially for those with the poorest oral health [17].

In agreement with an ambition of equity in health, it could be of societal importance to discover any adjustable health inequalities that could result from the introduction of a new payment system [18].

Consequently, several possible scenarios may follow from the changes to the payment systems in Swedish dental care, where the individual patient’s opinion and course of action may be considered to be highly influential. The aim of this study was to describe differences with regard to socioeconomic and lifestyle factors, as well as perceived oral health and attitudes towards oral health among patients choosing a capitation prepayment system or a fee-for-service payment system for dental care within the Public Dental Service in Region Västra Götaland, Sweden.

Methods
Data were collected from 13,719 patients consecutively enrolled when attending their
ordinary scheduled regular appointments for dental examination, if they attended one of 20
PDS clinics selected through a stratified and random procedure. The procedure randomly
sampled 20 clinics out of a total of 116 clinics in the Region Västra Götaland, stratified by
urban/rural area and by administrative subdivision of the region. The region covers about 1.2
million persons over the age of 20, 40-45% of whom are registered with the PDS. The
remaining adult individuals receive their dental care within the private dental care sector.

The inclusion criteria were: age 20 years and older, accepting to participate by filling in a
questionnaire, and ability to read and understand Swedish. The study was initiated on May 1st,
2007, during the regional implementation of the new optional prepayment scheme
Frisktandvård (‘Dental Care for Health’), and inclusion continued during 2007 and 2008. A
questionnaire was filled out before the scheduled dental examination, and before the patient
had the opportunity to choose between the new and the traditional payment systems. After the
dental examination, where clinical data were recorded, each patient was informed about the
respective payment systems and asked to choose between them. Thus, this data collection
applies to what may be considered a natural experiment - the implementation of an elective
transition of payment system in the Region Västra Götaland, Sweden.

Risk classification:
After the clinical examination and filling out of the questionnaire, the individual patient was assigned to one of five risk classification groups. The classification was computer-assisted by software linked to the electronic patient chart system T4 (T4 Practice Management software, Carestream Dental, Stockholm, Sweden). A proposed risk group classification was established in a systematic way: Status information on caries, periodontitis, previously received care and presence of wisdom teeth was automatically transferred from the individual patient chart into the software aiding the risk classification. Manually entered modifying factors included possible medication, tobacco use, levels of oral hygiene and tooth wear. All factors were marked on a three-graded scale, and weighted using a defined algorithm into a proposed risk group that could be altered in either direction by the responsible dentist/dental hygienist. Each risk group was linked to a fixed fee, which represented the cost for the patient to consider if they wanted to make an active choice and change from the fee-for-service payment system to the prepayment agreement.

The agreement:

If, and when, the patient agreed to pay the stipulated fee for the current risk group, he/she entered an agreement, or contract, with the dentist/dental hygienist with certain obligations for both parties: The dentist/hygienist would invite the patient to (mandatory) regular dental examinations every 12-18 months, depending on risk group, and agree to provide all dental care needed during the following three-year period. Specialist treatment and fixed prosthodontics were not included. The patient also had to commit to an individually designed self-care protocol, including advice concerning oral hygiene, diet and fluoride usage. When the three-year period expired, a renewed risk classification was performed, and the patient
was again offered the possibility to choose between the prepayment scheme, at a fee
determined by an updated risk classification, or to pay traditionally by fee for service, for the
next three-year period.

The method:

All data sets included clinically recorded measures of oral health, together with a
questionnaire focusing on health and health beliefs. Patients were followed in 12 or 18-
months intervals, and after 3 years and 6 years, respectively, they were again given the
opportunity either to change or to maintain their present payment scheme; prepayment or fee-
for-service.

The questionnaire obtained information about demographics, self-reported oral and general
health, lifestyle, dental care habits, preventive measures, experience of dental care, attitudes
and beliefs towards health and disease. The filling-in procedure was standardized through
formalized instructions to the dental staff to ensure that the questionnaires were completed by
the patient him/herself, before the clinical examination. All completed questionnaires were
stored at the respective clinic until the data collection was completed and the data were
transferred to a computer file. The Regional Ethical Review Board has approved the study
(No. 323-07).

Included variables:
The dependent variable indicated the patient’s choice of either of the two payment schemes:

- 0 = The traditional fee-for-service scheme
- 1 = The prepayment scheme; i.e., the new dental insurance policy Frisktandvård ('Dental care for health').

The independent variables comprised the answers to the following questions in the questionnaire.

The response options to some questions were trichotomized for the multiple regression analysis, merging low value options, as described below:

<table>
<thead>
<tr>
<th>Question</th>
<th>Label</th>
<th>Response options after collapsing</th>
</tr>
</thead>
<tbody>
<tr>
<td>“What is your date of birth?”</td>
<td>yymmdd</td>
<td></td>
</tr>
<tr>
<td>“What is your gender?”</td>
<td></td>
<td>0 Female</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Male</td>
</tr>
<tr>
<td>“How tall are you?”</td>
<td>cm</td>
<td></td>
</tr>
<tr>
<td>“How much do you weigh?”</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td>“Which is your highest completed level of education?”</td>
<td></td>
<td>1 Elementary School, not finished + 2 Upper Secondary School</td>
</tr>
</tbody>
</table>
“How do you consider your own dental health at present?”

1 Bad + Somewhat bad
2 Good
3 Very good

“Do you smoke?”

1 Yes + No, but used to
2 No

“How much do you exercise in your spare time?”

1 Almost no exercise at all + Short walks, now and then
2 Regularly, once a week + Regularly, twice or more a week
3 Regularly, hard, at least twice a week

“Have you been motivated to follow advice and instructions that you have received concerning your oral health?”

1 No + Yes, a little
2 Yes, quite
3 Yes, very

“In your opinion, do your dietary habits affect your oral health?”

1 No + Yes, a little
2 Yes, somewhat
“In your opinion, how significant is good oral health for your general wellbeing?”

1 Not at all significant +
2 A little
3 Somewhat significant
4 Very significant

“How satisfied are you with the appearance of your teeth?”

1 Very dissatisfied +
2 Quite dissatisfied
3 Quite satisfied
4 Very satisfied

Data analysis:

Analyses were performed using the SPSS, version 20.0. The Mann-Whitney U test and the chi-square analysis were used to detect statistical significance of differences in distribution between the two payment schemes, for continuous and ordinal scale independent variables, respectively.

A logistic regression model was built using a stepwise forward strategy. Independent variables were categorized as either covariates or confounders, according to our graphically outlined understanding of their relationship. All the available independent variables were considered for the final logistic regression model after they were determined not to be hazardously correlating with each other, based on the correlation analysis (Spearman’s $p \leq$
0.348) or when cross-tabulated, variable by variable. Each independent variable was then independently included in the final regression model if showing statistically significant influence on the value of the dependent variable in the bivariable analysis (p< 0.25 in the log likelihood test), together with a similarly statistically significant influence in the multivariable analysis (p<0.25 in the Wald test). A number of interaction terms; for instance, products of the variables age and assessment of own oral health were considered but rejected, as they failed to show statistical significance, as described above. The final full model attempted to predict the choice of payment scheme and to explain the amount of variability assessed by the independent variables. Results were expressed as odds ratios (OR) with 95% confidence intervals. The traditional payment scheme was used as the reference category of the dependent variable payment system.

Results

Table 1 presents the distribution of age, BMI and gender between the two payment models, as well as how answers to questions in the questionnaire varied between the different response options for the two payment models, respectively. The patients who chose to prepay differed statistically significantly from those who chose to pay traditionally by being younger, more often female, and having a lower BMI.

The distribution of responses between options differed statistically significantly between the prepayment scheme and the traditional payment scheme for all questions. Moreover, the prepayment group answers displayed a higher level of education, better self-assessed level of
oral health, a lower incidence of present and former smoking, higher levels of spare time
exercise and greater motivation to follow self-care advice. They also revealed a stronger
belief in dietary habits affecting oral health as well as oral health being significant for general
wellbeing. The prepayment group also reported better satisfaction with the appearance of their
teeth. All differences were statistically significant.

The results from the bivariate and the multivariate logistic regression models are shown in
Table 2. The more affirmative the answer to a question in the questionnaire (in the case of
smoking, the more affirmative being “no”), the more likely the person was to choose the
prepayment scheme; i.e., the higher the odds ratio. The gradient of increasing odds ratios was
maintained from the bivariate into the multivariate regression model for a majority of the
variables, which could be considered to increase the credibility of the association, as all the
variables were included in one model. For the variable of smoking as well as the variable of
the significance of oral health for general wellbeing, the multivariate model showed increased
odds ratios compared to the bivariate model, as opposed to all the other variables, where the
effect was diluted when the other variables were controlled for. The Nagelkerke test model
evaluator showed a value of 0.17, which can be interpreted as that there still being other major
variables involved in explaining and predicting the patients’ choice of payment system in
dental care.

Discussion
This study of answers from a questionnaire completed by 13,719 regularly attending PDS patients in Region Västra Götaland, Sweden reported on the individual responses to questions concerning individual health investments and the value of good oral health. The answers differed significantly between those who chose with the fee-for-service system, and those who chose the new optional prepayment system Frisktandvård (‘Dental care for health’). The study further showed a gradient in the influence of the investigated aspects: lifestyle, socioeconomic factors, assessment of own oral health, and the significance of oral health for general wellbeing, on the patient’s choice of payment system. The more explicitly affirmative response option the patient chose, the more likely she/he was to choose the prepayment scheme, whether the variable was analyzed separately or the influence of all other variables in the study were controlled for.

Earlier studies on capitation payment in Swedish dental care have indicated differences in the patients’ general health between payment systems [19], as well as an association between the payment system and oral health-related quality of life [20], where capitation system patients showed both better self-reported general health and higher oral health-related quality of life than fee-for-service patients. This could be considered to be in accordance with the result of the present study, concerning variables representing assessment of own oral health and the significance of oral health for wellbeing.

The results from this study further agree with earlier empirical studies on voluntary health insurances [14, 15], thus disputing standard economic theory, which assumes that the higher-than-average risk patients are more inclined to choose an optional health insurance. A rationale for this presumption may be that a low expected benefit from taking out an insurance for individuals with relatively low risk would make them more likely to refrain
from doing so than individuals with a relatively high risk, with a relatively greater expected
benefit. Therefore, a positive correlation might be expected between health risk and voluntary
health insurance, and – since health risk may be assumed to be negatively dependent on health
– a negative correlation between health and insurance. However, recent empirical evidence
apparently points in the opposite direction. This has generally been explained in the literature
by correlating the individual risk with risk preference [15, 21], meaning that individuals with
better health may be more averse to risk than individuals with poorer health. The rationale
would thus be that the more averse to risk an individual becomes, the more inclined he or she
will be to make health investments that reduce the probability of ending up with bad health.
This may mirror the results of the present study as patients with better self-reported oral
health and a better lifestyle significantly more often chose the prepayment system.

The diversification of payment systems in the Swedish dental care introduced new incentives
for caregivers as well as for patients [8, 22]; for example, payment per item of dental care
(fee-for-service payment) offers an incentive for the caregiver to match the magnitude, or
level, of treatment proposed to the patient to his/her available time, so called supplier-induced
demand. The risk of overtreatment due to supplier-induced demand may be further amplified
by the presence of a third party financier by reducing the patients’ costs for dental care
procedures through a high cost protection scheme. Thus, fee-for-service payment holds no
incentive to constrain the amount of treatment [23]. When, on the other hand, caregivers
receive a fixed compensation, as in the capitation payment, for each patient, regardless of the
patient’s individual care need, they may feel motivated to keep the time spent on each patient
down. Capitation payment may thus involve a risk of undertreatment, rather than
overtreatment (supplier-induced demand) [7]. In a longer perspective, however, the incentive
for caregivers as well as for patients to keep the costs down could instead, in theory,

strengthen the motivation of both parties to take preventive action. To attract the caregivers’

interest in investing in time-consuming preventive treatments, they need to perceive a decent

prospect of gain from their investment. This, in turn, requires that the caregiver-patient

relationship be maintained over a longer period of time, as possible when linked by a contract

[6]. The potential gain from clearly targeting preventive oral health care could be either

continuously improved oral health for the individual patient [24], or reduced costs, for the

patient as well as for society, as some forms of treatment will no longer be necessary. This

reasoning received some support in a review article on the care content in capitation versus

fee-for-service payment systems [8], which indicated a difference between the payment

treatments received by fee-for-service patients. Ultimately, it may also be argued that the

higher degree of education and health awareness shown by the capitation system patients may

further increase the difference in oral health development between patients in the two

different payment systems over time. Such theoretical reasoning and empirical findings have

been demonstrated by Marmot with regard to general health [18].

The strengths of this study may be considered to be the large number of participants from 20

systematically selected clinics, and the fact that data were collected before the first possible

opportunity to choose between a traditional payment system and a new system with

considerably different characteristics. Among the study’s weaknesses are those that follow

from a natural experiment in its live setting: There is a risk of classification problems due to

difficulties of ensuring internal validity in a large number of study centers. Integrated in the

quasi-experimental design is also the danger of over-interpreting the results due to selection

bias. One reason to suggest an adequate representativity of the sample, apart from the sample
size, is the fairly good agreement between the gender distribution in the study (male 47.3%,
female 52.7%) and the overall gender distribution in the total adult PDS patient population in
the Region Västra Götaland (male 48%, female 52%).

Conclusions

In conclusion, the present study indicates that patients’ self-reported attitudes concerning the
impact of good oral health differ between those who chose a new insurance-like payment
system, and those who chose the traditional fee-for-service system. It may be argued that this
difference is linked to variations in the perception and management of risk. The results also
suggest a pattern, indicating that the patients seem to be more likely to choose the prepayment
scheme if they are female, well educated, do not smoke, exercise extensively, assess their own
oral health as very good, are very motivated to follow self-care advice, and think that oral
health is very significant for general wellbeing.

Encouraging patients to initiate a cycle of good oral health is a major challenge in everyday
dental health care. In the light of the reasoning around the results of this study, signing up for
an optional health insurance may be regarded as influential when it comes to encouraging oral
health improvement. The findings may contribute to putting the focus on the potential of
extending the new payment system’s eligibility and accessibility further among the
heterogeneous group of adult PDS patients.
List of abbreviations

PDS  Public Dental Service
OR  Odds ratio
SEK  Swedish currency

Competing interests

The authors report no conflicts of interest.

Authors’ contributions

CAA performed the statistical analyses and wrote the main text.
MH was responsible for the design and the execution of the study and data collection, and supplied invaluable support in the statistical analysis as well as in drafting and developing the text.

Acknowledgements
The authors would like to extend their warmest thanks to Björn Lindgren, Department of
Health Economics and Forensic Medicine, Faculty of Medicine, Lund University, Kristian
Bolin, Institute of Political Economy, University of Gothenburg, and Lina Maria Ellegård,
School of Economics, Lund University, for their contributions with supplying the theoretical
framework, interpretation of data, and reading the manuscript.

This study was supported by the Public Dental Service, Västra Götaland Region, the Swedish
National Graduate School in Odontological Science, and the Swedish Council for Working
Life and Social Research.

References

1. Widstrom E, Eaton KA: Oral healthcare systems in the extended European

2. Barenthin I: Dental insurance and equity of access to dental services.

3. SOU (Statens Offentliga Utredningar/Official Reports of the Swedish
Government): Friskare tänder: till rimliga kostnader: slutbetänkande, SOU

4. Zickert I, Jonson A, Klock B, Krasse B: Disease activity and need for dental care


Table 1. Distribution of answers from the questionnaire, in total and as comparisons between the two payment schemes.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Prepayment Scheme</th>
<th>Traditional Scheme</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean    SD  N    %</td>
<td>Mean    SD  N    %</td>
<td>Mean    SD  N    %</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>40.34   12.33 34.9 9.94</td>
<td>34.90 9.94 43.07 12.10</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>BMI</td>
<td>24.84   3.87 24.3 3.72</td>
<td>25.14 3.92 24.3 3.72</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>7225   52.7 1783 55.9</td>
<td>4608 51.3 1783 55.9</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6495   47.3 1409 44.1</td>
<td>4366 48.7 1409 44.1</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary School</td>
<td>1558   11.5 165 5.2</td>
<td>1241 14.0 1241 14.0</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Upper Sec. School</td>
<td>7560   55.8 1887 59.7</td>
<td>4801 54.2 1887 59.7</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>4432   32.7 1109 35.1</td>
<td>2810 31.7 1109 35.1</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Assessment of own oral health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessment of own oral health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bad/ Somewhat bad</td>
<td>4250   31.3 672 21.2</td>
<td>3047 34.3 672 21.2</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Quite good</td>
<td>7437   54.7 1873 59.3</td>
<td>4774 53.7 1873 59.3</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Very good</td>
<td>1900   14.0 616 19.5</td>
<td>1068 12.0 616 19.5</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Smoking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1507   11.1 233 7.3</td>
<td>1037 11.7 233 7.3</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>No, but used to</td>
<td>2361   17.4 468 14.8</td>
<td>1635 18.4 468 14.8</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>9739   71.6 2471 77.9</td>
<td>6225 70.0 2471 77.9</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Spare time exercise</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No/Short walks</td>
<td>Regularly 1-2/week</td>
<td>Regularly, hard, 2/week or more</td>
<td>Statistic</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------</td>
<td>--------------------</td>
<td>----------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td></td>
<td>4479 33.2</td>
<td>863 27.3</td>
<td>3086 34.8</td>
<td></td>
</tr>
<tr>
<td>Motivation to follow self care instructions</td>
<td>6934 51.1</td>
<td>1672 52.9</td>
<td>4554 51.3</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>2150 15.8</td>
<td>630 19.9</td>
<td>1231 13.9</td>
<td></td>
</tr>
<tr>
<td>Thinking dietary habits affects oral health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2692 21.8</td>
<td>552 17.4</td>
<td>2064 23.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6005 44.1</td>
<td>1420 44.9</td>
<td>3926 44.1</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>4637 34.1</td>
<td>1192 37.7</td>
<td>2905 32.7</td>
<td></td>
</tr>
<tr>
<td>Oral health’s significance for well-being</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1803 13.3</td>
<td>312 9.8</td>
<td>1254 14.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4861 35.8</td>
<td>1037 32.7</td>
<td>3310 37.3</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>6932 51.0</td>
<td>1820 57.4</td>
<td>4319 48.6</td>
<td></td>
</tr>
<tr>
<td>Satisfaction with teeth’s appearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2198 16.2</td>
<td>376 11.8</td>
<td>1538 17.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9800 72.1</td>
<td>2324 73.4</td>
<td>6432 72.4</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>1596 11.7</td>
<td>468 14.8</td>
<td>911 10.3</td>
<td></td>
</tr>
</tbody>
</table>

476
**Table 2.** Logistic regression model of variables’ influence on choice of payment scheme.

<table>
<thead>
<tr>
<th></th>
<th>Bivariate</th>
<th>Multivariate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OR</td>
<td>CI</td>
</tr>
<tr>
<td>Age</td>
<td>0.94</td>
<td>0.94-0.94</td>
</tr>
<tr>
<td>Sex</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.20</td>
<td>1.10-1.30</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Upper sec school</td>
<td>2.96</td>
<td>2.50-3.51</td>
</tr>
<tr>
<td>University</td>
<td>2.97</td>
<td>2.49-3.54</td>
</tr>
<tr>
<td><strong>Smoking</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Yes, former</td>
<td>1.27</td>
<td>1.07-1.52</td>
</tr>
<tr>
<td>Yes</td>
<td>1.77</td>
<td>1.52-2.05</td>
</tr>
<tr>
<td><strong>Spare time exercise</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Regularly 1-2/w</td>
<td>1.32</td>
<td>1.20-1.45</td>
</tr>
<tr>
<td>Regularly &gt;2/w</td>
<td>1.83</td>
<td>1.62-2.07</td>
</tr>
<tr>
<td><strong>Assessment of own oral health</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bad/Not good</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>1.78</td>
<td>1.61-1.97</td>
</tr>
<tr>
<td>Very</td>
<td>2.62</td>
<td>2.30-2.98</td>
</tr>
<tr>
<td><strong>Motivation to follow self care instructions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non/Little</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Quite</td>
<td>1.35</td>
<td>1.21-1.51</td>
</tr>
<tr>
<td>Very</td>
<td>1.53</td>
<td>1.37-1.72</td>
</tr>
<tr>
<td><strong>Oral health’s significance for wellbeing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non/Little</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Somewhat</td>
<td>1.47</td>
<td>1.15-1.89</td>
</tr>
<tr>
<td>Very</td>
<td>1.65</td>
<td>1.29-2.12</td>
</tr>
</tbody>
</table>

Nagelkerke 0.17