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## Appendix 1. Analysis Delphi round I.

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Agreement in- and exclusion (%)</th>
<th>Excluded / Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List A -Group 1 – General dental practice and attendance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Type of dental practice funding (public, private, both)</td>
<td>2.1</td>
<td>86</td>
<td>Included</td>
<td>Funding may impact the treatment choices or show lack of resources; important for good comparison</td>
</tr>
<tr>
<td>1.2 Total number of dental visits in (time horizon to be specified)</td>
<td>2.0</td>
<td>76</td>
<td>Excluded</td>
<td>Topic is covered by topic 1.3, 1.4 and 1.5</td>
</tr>
<tr>
<td>1.3 Interval of regular dental check-ups</td>
<td>2.4</td>
<td>92</td>
<td>Included</td>
<td>Important to know whether interval is patient-based and provides information on interest of patient in oral health – says something on preventive attitude</td>
</tr>
<tr>
<td>1.4 Number of acute dental visits</td>
<td>2.2</td>
<td>90</td>
<td>Excluded</td>
<td>Replaced by topic 1.5</td>
</tr>
<tr>
<td>1.5 Reasons for dental visit (problem, treatment, check-up)</td>
<td>2.5</td>
<td>93</td>
<td>Included</td>
<td>Topics, 1.2, 1.3 and 1.4 could be merged together into one topic</td>
</tr>
<tr>
<td>1.6 Reasons for non-attendance (costs, anxiety, etc.)</td>
<td>2.3</td>
<td>90</td>
<td>Excluded</td>
<td>Not possible to measure non-attendance in people who attend. Part on anxiety included in group 6</td>
</tr>
<tr>
<td>1.7 Care continuity (duration of being registered at the same dentist)</td>
<td>1.8</td>
<td>68</td>
<td>Excluded</td>
<td>Care continuity should be measured together with satisfaction, access and mobility. Care continuity cannot be retrieved appropriately.</td>
</tr>
<tr>
<td>1.8 Decision not to proceed with recommended dental treatment due to cost</td>
<td>1.9</td>
<td>75</td>
<td>Included</td>
<td>Costs are important in treatment choice and non-attendance.</td>
</tr>
<tr>
<td>1.9 Referral to dental specialist</td>
<td>2.0</td>
<td>75</td>
<td>Included</td>
<td>Gives insight into whether there is knowledge of the boundaries of care and might reflect the complexity of treatment undertaken within the practice</td>
</tr>
<tr>
<td>Additional topics on access:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Distance to practice (km)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Age of first attendance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 1. Continued

#### Topics Mean Agreement in- and exclusion (%) Excluded/ Included Reason

**List A – Group 2 – Oral symptoms and diagnosis**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Excluded/ Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Current symptoms</td>
<td>2.5</td>
<td>92 Included (rephrased)</td>
<td>Provides important information for treatment and prevention planning. Furthermore, it reflects reasons for attendance</td>
</tr>
<tr>
<td>2.2 Medical history (co-morbidities and medication)</td>
<td>2.6</td>
<td>93 Included (rephrased)</td>
<td>The mouth is part of the body and both interact, so information is essential for diagnosis, treatment and prevention.</td>
</tr>
<tr>
<td>2.3 X-rays (including bitewings, solo's and OPT's)</td>
<td>2.4</td>
<td>92 Included (rephrase with comment)</td>
<td>Important and inevitable in daily practice. Remark: X-rays on indication cannot be measured, since patients won’t remember and the information is not registered or claimed. Total number of x-rays reimbursed/claimed can be measured.</td>
</tr>
<tr>
<td>2.4 Periodontal examination (BPE, Pl, Bl, PSl, PD)</td>
<td>2.8</td>
<td>97 Included (remark)</td>
<td>Gives basic information that is essential for the oral health status and it tells something about the awareness of the dentist. However, information cannot be retrieved in all countries (e.g. Netherlands)</td>
</tr>
<tr>
<td>2.5 Bleeding gums (after/during tooth brushing)</td>
<td>2.2</td>
<td>76 Excluded Topic is covered in the topics 2.1 and 2.4</td>
<td></td>
</tr>
<tr>
<td>2.6 Pain/discomfort</td>
<td>2.5</td>
<td>87 Excluded Topic is covered in the topic 2.1</td>
<td></td>
</tr>
<tr>
<td>2.7 Mirror/probe examination (general check-up)</td>
<td>2.5</td>
<td>91 Excluded</td>
<td>It is part of the regular check-up/screening process, these topics would not provide additional information besides the topic on check-up</td>
</tr>
<tr>
<td>2.8 Number of teeth</td>
<td>2.5</td>
<td>95 Included</td>
<td>Important topic on the oral health status, however the acquisition of this information is for discussion.</td>
</tr>
</tbody>
</table>

**List A – Group 3 – Health behaviours**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Excluded/ Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Tooth brushing (frequency, duration, method)</td>
<td>2.6</td>
<td>95 Included</td>
<td>Important topic for oral health, hygiene and might be an indicator of compliance. However, people give socially desirable answers to this.</td>
</tr>
<tr>
<td>3.2 Use of fluoride toothpaste</td>
<td>2.4</td>
<td>95 Included (add remark)</td>
<td>Might give information on how the dentists inform their patients. Remark added is that probably &gt;99% of people use fluoride toothpaste, information collected through this topic will be an exception.</td>
</tr>
<tr>
<td>3.3 Interdental cleaning (tooth picks, floss, toothbrush)</td>
<td>2.6</td>
<td>97 Included</td>
<td>Important topic, especially with increasing age. But compliance is often a problem and there is doubt on the true effectiveness of interdental cleaning.</td>
</tr>
</tbody>
</table>
### Appendix 1. Continued

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Agreement in- and exclusion (%)</th>
<th>Excluded/ Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.4 Smoking</td>
<td>2.6</td>
<td>95</td>
<td>Included (with remark)</td>
<td>Relevant for general health and oral health. You can even speak of a legal and ethical obligation for the dentists to inform patients on the consequences and dangers. However, patients might not want to hear another expert-opinion.</td>
</tr>
<tr>
<td>3.5 Alcohol use</td>
<td>2.1</td>
<td>76</td>
<td>Included (with remark)</td>
<td>Same reasons as topics 3.4, but with alcohol use it seems likely that even more socially desirable answers occur.</td>
</tr>
<tr>
<td>3.6 Diet (sugary foods &amp; drinks, fruits, bottle use, acids, etc.)</td>
<td>2.5</td>
<td>95</td>
<td>Included (rephrased)</td>
<td>Important topic for caries and erosion. But also important for dietary habits that can lead to other oral and general health problems. Remark on how and what to measure, number of eating moments, sugary foods and drinks and/or acidic.</td>
</tr>
</tbody>
</table>

**List A – Group 4 – oral treatments**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Agreement in- and exclusion (%)</th>
<th>Excluded/ Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Fillings</td>
<td>2.7</td>
<td>97</td>
<td>Included (with remark)</td>
<td>An important topic where a lot of specific information can be retrieved from, for example, filling placed where decay has gone through enamel, type of filling, restorations etc. Remark: However, many of this specific information on fillings cannot be retrieved from claims data or patients.</td>
</tr>
<tr>
<td>4.2 Extractions</td>
<td>2.6</td>
<td>94</td>
<td>Included (with remark)</td>
<td>Important for assessing dental health, more important is why the extraction is done, however this information cannot be retrieved.</td>
</tr>
<tr>
<td>4.3 Root canal treatment</td>
<td>2.6</td>
<td>95</td>
<td>Included</td>
<td>Important in a dental practice. Not much discussion on this topic.</td>
</tr>
<tr>
<td>4.4 Periodontal treatment</td>
<td>2.6</td>
<td>92</td>
<td>Included (rephrase)</td>
<td>Important topic that relates to retreatment. Rephrase to make it clearer.</td>
</tr>
<tr>
<td>4.5 Retreatment</td>
<td>1.9</td>
<td>64</td>
<td>Included (rephrased)</td>
<td>Low retreatment rates are one of the best indicators for a high standard of initial care.</td>
</tr>
<tr>
<td>4.6 Crowns, bridges and veneers / facings</td>
<td>2.3</td>
<td>76</td>
<td>Included</td>
<td>Aesthetics are an important component of oral health</td>
</tr>
<tr>
<td>4.7 Dental implants</td>
<td>2.3</td>
<td>84</td>
<td>Included</td>
<td>Depends on availability and preference of the dentists. Questionable whether it improves oral health, but an important topic for comparison of dentists.</td>
</tr>
<tr>
<td>4.8 Full removable dentures</td>
<td>2.4</td>
<td>86</td>
<td>Included</td>
<td>Large agreement and no counterarguments given for exclusion. Dentures are especially important with the ageing population.</td>
</tr>
<tr>
<td>4.9 Partial removable dentures</td>
<td>2.5</td>
<td>89</td>
<td>Included</td>
<td>Large agreement. Important for quality of life.</td>
</tr>
</tbody>
</table>
### Appendix 1. Continued

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Agreement in- and exclusion (%)</th>
<th>Excluded / Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.10 Orthodontic treatment</td>
<td>1.9</td>
<td>68</td>
<td>Excluded</td>
<td>Orthodontic treatments are usually not performed by the general dental practitioner.</td>
</tr>
<tr>
<td>4.11 Trauma-related treatment</td>
<td>2.1</td>
<td>78</td>
<td>Excluded</td>
<td>Is included in topic 1.5</td>
</tr>
<tr>
<td>4.12 Sedation</td>
<td>1.2</td>
<td>35</td>
<td>Excluded</td>
<td>Not essential in general dental practice- very specialised</td>
</tr>
</tbody>
</table>

### List A – Group 5 – Preventive treatment and surveillance

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Agreement in- and exclusion (%)</th>
<th>Excluded / Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Fissure sealants</td>
<td>2.4</td>
<td>95</td>
<td>Included</td>
<td>Prevention, especially important for children.</td>
</tr>
<tr>
<td>5.2 Fluoride application</td>
<td>2.6</td>
<td>95</td>
<td>Included</td>
<td>Important, question that can be answered is whether its performed as a regular treatment (mainly in children) or only for high risk patients.</td>
</tr>
<tr>
<td>5.3 Health advice (dietary advice, oral hygiene instruction, smoking cessation, etc. and follow-up)</td>
<td>2.7</td>
<td>100</td>
<td>Included (rephrased)</td>
<td>Full agreement, important for oral health and oral health policy. Topic separated into a topic on oral hygiene advice, dietary advice and smoking advice.</td>
</tr>
<tr>
<td>5.4 Professional cleaning (scale &amp; polish, plaque removal)</td>
<td>2.4</td>
<td>85</td>
<td>Included</td>
<td>The effectiveness is questioned but it is still considered an important topic.</td>
</tr>
<tr>
<td>5.5 Caries under surveillance</td>
<td>2.1</td>
<td>81</td>
<td>Included (rephrased)</td>
<td>The topic means: whether there is shared knowledge about early caries, and not supervised neglect</td>
</tr>
<tr>
<td>5.6 Time without restoration</td>
<td>1.8</td>
<td>65</td>
<td>Excluded</td>
<td>Although it would be interesting to know, but almost impossible to collect this information. Even if collected through a questionnaire there would be a high risk of reporting bias.</td>
</tr>
</tbody>
</table>

### List A – Group 6 – Patient’s perception

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Agreement in- and exclusion (%)</th>
<th>Excluded / Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 Patient satisfied with function</td>
<td>2.5</td>
<td>92</td>
<td>Included (rephrased)</td>
<td>Important topic, only smiling is already covered by topic 6.2.</td>
</tr>
<tr>
<td>6.2 Patient satisfied with appearance of teeth</td>
<td>2.3</td>
<td>95</td>
<td>Included</td>
<td>Important topic, however only relevant when the expectation is realistic</td>
</tr>
<tr>
<td>6.3 Patient involved in decision making</td>
<td>2.5</td>
<td>90</td>
<td>Included (rephrased)</td>
<td>“This is crucial and reflects the capability of the dentist as well as the healthcare/insurance system to offer time to educate and inform patients about risks, possibilities, alternatives and prognosis of several treatment options.”</td>
</tr>
</tbody>
</table>
### Appendix 1. Continued

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Agreement in- and exclusion (%)</th>
<th>Excluded / Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.4 Patient recommends dentist to friends and family</td>
<td>1.7</td>
<td>57</td>
<td>Excluded</td>
<td>Provides feedback for the dentists but is not a core topic.</td>
</tr>
<tr>
<td>Additional topic on:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.1 Teeth grinding</td>
<td>1.4</td>
<td>56</td>
<td>Excluded</td>
<td>Not measurable and too specific.</td>
</tr>
<tr>
<td>7.2 Teeth wear</td>
<td>1.6</td>
<td>54</td>
<td>Excluded</td>
<td>Not measurable, although many find this important especially since it is a growing problem.</td>
</tr>
<tr>
<td>7.3 Temporomandibular joint disorder (TMD)/jaw dysfunction</td>
<td>1.3</td>
<td>46</td>
<td>Included (rephrased and remark)</td>
<td>Mentioned as a comment at several topics, but there are difficulties accurately assessing whether patients have TMD problems. Remark: do you have suggestions for measuring TMD through patients (claims data won't give this information).</td>
</tr>
<tr>
<td>7.4 Halitosis (bad breath)</td>
<td>1.8</td>
<td>64</td>
<td>Excluded</td>
<td>Majority agrees to exclude and partially it is covered in topic 2.1.</td>
</tr>
<tr>
<td>7.5 Bad taste</td>
<td>1.9</td>
<td>66</td>
<td>Excluded</td>
<td>Majority agrees to exclude and partially it is covered in topic 2.1.</td>
</tr>
<tr>
<td>7.6 Saliva problems</td>
<td>1.1</td>
<td>40</td>
<td>Excluded</td>
<td>Important part of oral health but not a core topic. Partially included in topic.</td>
</tr>
</tbody>
</table>

**List B – Group 7 – Signs and symptoms**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Agreement in- and exclusion (%)</th>
<th>Excluded / Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1 Teeth grinding</td>
<td>1.4</td>
<td>56</td>
<td>Excluded</td>
<td>Not measurable and too specific.</td>
</tr>
<tr>
<td>7.2 Teeth wear</td>
<td>1.6</td>
<td>54</td>
<td>Excluded</td>
<td>Not measurable, although many find this important especially since it is a growing problem.</td>
</tr>
<tr>
<td>7.3 Temporomandibular joint disorder (TMD)/jaw dysfunction</td>
<td>1.3</td>
<td>46</td>
<td>Included (rephrased and remark)</td>
<td>Mentioned as a comment at several topics, but there are difficulties accurately assessing whether patients have TMD problems. Remark: do you have suggestions for measuring TMD through patients (claims data won’t give this information).</td>
</tr>
<tr>
<td>7.4 Halitosis (bad breath)</td>
<td>1.8</td>
<td>64</td>
<td>Excluded</td>
<td>Majority agrees to exclude and partially it is covered in topic 2.1.</td>
</tr>
<tr>
<td>7.5 Bad taste</td>
<td>1.9</td>
<td>66</td>
<td>Excluded</td>
<td>Majority agrees to exclude and partially it is covered in topic 2.1.</td>
</tr>
</tbody>
</table>

**List B – Group 8 – Preventive**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Agreement in- and exclusion (%)</th>
<th>Excluded / Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1 Adverse habits (e.g. pen biting)</td>
<td>2.0</td>
<td>79</td>
<td>Excluded</td>
<td>Not a core topic.</td>
</tr>
<tr>
<td>8.2 Bottle milk during the night</td>
<td>1.5</td>
<td>58</td>
<td>Excluded</td>
<td>Partially covered in the topic on dietary advice in group 5. Furthermore, it concerns a specific group.</td>
</tr>
<tr>
<td>8.3 Obesity</td>
<td>1.7</td>
<td>62</td>
<td>Excluded</td>
<td>Controversy whether the dentists should give advice on this.</td>
</tr>
<tr>
<td>8.4 Exercise</td>
<td>3.1</td>
<td>90</td>
<td>Excluded</td>
<td>Not the role of the dentist to give advice on this.</td>
</tr>
<tr>
<td>8.5 Compliance (following the preventive advice of the dentist)</td>
<td>1.0</td>
<td>22</td>
<td>Excluded</td>
<td>Important in practice, however cannot be reliably measured.</td>
</tr>
<tr>
<td>8.6 Mother’s knowledge of fluoride toothpaste</td>
<td>1.5</td>
<td>54</td>
<td>Excluded</td>
<td>Specific topic and partially covered in topic 3.2.</td>
</tr>
</tbody>
</table>
## Appendix 1. Continued

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Agreement in- and exclusion (%)</th>
<th>Excluded/Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.7 Preventive care-seeking for pregnant women</td>
<td>1.6</td>
<td>57</td>
<td>Excluded</td>
<td>Too specific – not core topic. But agreement that this is important for this specific group.</td>
</tr>
<tr>
<td>8.8 Fluoride exposure rates</td>
<td>1.5</td>
<td>52</td>
<td>Excluded</td>
<td>Information cannot be retrieved from claims data or patients. Other sources would not provide practice specific information.</td>
</tr>
<tr>
<td>8.9 Plaque improvement</td>
<td>1.3</td>
<td>43</td>
<td>Excluded</td>
<td>Partially covered in periodontal examination and it is difficult to measure.</td>
</tr>
<tr>
<td>8.10 Prevention programs at school</td>
<td>1.4</td>
<td>44</td>
<td>Excluded</td>
<td>Specific group and is not dental practice related</td>
</tr>
<tr>
<td>Additional topic: - Elderly</td>
<td>-</td>
<td>-</td>
<td>Excluded</td>
<td>Not a core topic.</td>
</tr>
</tbody>
</table>

### List B – Group 9 – Dental practice provided to patient

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Agreement in- and exclusion (%)</th>
<th>Excluded/Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1 Population per dentist</td>
<td>1.5</td>
<td>50</td>
<td>Excluded</td>
<td>Partially measured by the social demographic characteristics.</td>
</tr>
<tr>
<td>9.2 Patients with special needs</td>
<td>1.5</td>
<td>57</td>
<td>Excluded</td>
<td>Specific group and difficult to measure.</td>
</tr>
<tr>
<td>9.3 Training in motivational interviewing</td>
<td>1.8</td>
<td>69</td>
<td>Excluded</td>
<td>Difficult to measure.</td>
</tr>
<tr>
<td>9.4 Orthodontic failures</td>
<td>2.2</td>
<td>78</td>
<td>Excluded</td>
<td>Not a core topic and difficult to measure.</td>
</tr>
<tr>
<td>9.5 Orthodontic after care - retentions</td>
<td>1.9</td>
<td>75</td>
<td>Excluded</td>
<td>Not a core topic.</td>
</tr>
<tr>
<td>9.6 Teeth with fracture</td>
<td>1.6</td>
<td>53</td>
<td>Excluded</td>
<td>Partially covered by topic 16.</td>
</tr>
<tr>
<td>9.7 Complaints from patients</td>
<td>1.6</td>
<td>57</td>
<td>Excluded</td>
<td>Access to this information is difficult to retrieve, however partially information for this topic is retrieved in topics 6.1 and 6.2.</td>
</tr>
<tr>
<td>9.8 All indexes (DMFT, DMFS, DPSI, etc)</td>
<td>1.3</td>
<td>46</td>
<td>Excluded</td>
<td>This information is usually not registered, so not measurable.</td>
</tr>
<tr>
<td>9.9 Replacement of restoration</td>
<td>1.6</td>
<td>59</td>
<td>Excluded</td>
<td>Covered in topic 4.5.</td>
</tr>
<tr>
<td>9.10 Use of composite or amalgam</td>
<td>1.5</td>
<td>60</td>
<td>Excluded</td>
<td>Not essential information.</td>
</tr>
<tr>
<td>9.11 Use of dental dam</td>
<td>1.8</td>
<td>76</td>
<td>Excluded</td>
<td>Evidence is not strong - not a core topic.</td>
</tr>
</tbody>
</table>
### Appendix 1. Continued

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean</th>
<th>Agreement in- and exclusion (%)</th>
<th>Excluded/ Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.12 Number of teeth with a mobility &gt;1mm</td>
<td>1.9</td>
<td>71</td>
<td>Excluded</td>
<td>Covered by topic 2.4.</td>
</tr>
<tr>
<td>9.13 Pocket assessment</td>
<td>1.4</td>
<td>46</td>
<td>Excluded</td>
<td>Covered by topic 2.4.</td>
</tr>
<tr>
<td>9.14 Surgical periodontal treatment</td>
<td>1.8</td>
<td>65</td>
<td>Excluded</td>
<td>Evidence is not strong. Covered by topic 2.4.</td>
</tr>
<tr>
<td>9.15 Presence of infection (sepsis)</td>
<td>1.5</td>
<td>64</td>
<td>Excluded</td>
<td>Not measurable- often not registered</td>
</tr>
<tr>
<td>9.17 Treatment plan and costs</td>
<td>1.4</td>
<td>51</td>
<td>Excluded</td>
<td>Covered in topic 6.3.</td>
</tr>
<tr>
<td>9.18 Cost of treatment acceptable to patient</td>
<td>1.7</td>
<td>64</td>
<td>Excluded</td>
<td>Covered in topic 1.8.</td>
</tr>
<tr>
<td>9.19 Visiting hygienist for treatment or by referral</td>
<td>1.7</td>
<td>65</td>
<td>Excluded</td>
<td>Not a core topic for all countries and is partially covered in topic 19.</td>
</tr>
<tr>
<td>9.20 Mouth guards</td>
<td>2.1</td>
<td>84</td>
<td>Excluded</td>
<td>Not a core topic.</td>
</tr>
<tr>
<td>9.21 Oral mucosal lesions</td>
<td>1.0</td>
<td>40</td>
<td>Excluded</td>
<td>Added to topic 9.23.</td>
</tr>
<tr>
<td>9.22 Dental fluorosis</td>
<td>2.0</td>
<td>81</td>
<td>Excluded</td>
<td>Not a core topic.</td>
</tr>
<tr>
<td>9.23 Oral cancer screening (rephrased)</td>
<td>0.7</td>
<td>27</td>
<td>Included</td>
<td>Merged with oral mucosa screening.</td>
</tr>
<tr>
<td>9.24 Absence of plaque</td>
<td>1.8</td>
<td>70</td>
<td>Excluded</td>
<td>Covered in topic 2.4.</td>
</tr>
</tbody>
</table>

* topics in groups 1-6 were asked whether the topics should be included, the topics in the groups 7- 9 were asked whether the topics should be excluded.
### Appendix 2. Analysis Delphi round II.

<table>
<thead>
<tr>
<th>Group 1 – Information about attendance</th>
<th>Topics</th>
<th>Descriptor</th>
<th>Source/Note</th>
<th>Mean</th>
<th>Agreement (%)</th>
<th>Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Reason for dental visit</td>
<td>'I visited the dentist today, because.'</td>
<td></td>
<td>patient questionnaire</td>
<td>2.8</td>
<td>100</td>
<td>In</td>
<td>Basic information that gives insight in expectations and habits of the patient.</td>
</tr>
<tr>
<td></td>
<td>• New symptoms/ unplanned treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Planned check-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Planned treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Planned preventive treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>• Trauma/emergency treatment (more than one possible)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2 Travel time to dental practice</td>
<td>'How long does it take you to travel to your dental practice?'</td>
<td></td>
<td>patient questionnaire</td>
<td>1.3</td>
<td>38</td>
<td>Out</td>
<td>Not relevant for majority of patients to get the care they need and it is biased by the mode of transportation.</td>
</tr>
<tr>
<td></td>
<td>• &lt; 15 min</td>
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<tr>
<td></td>
<td>• 15 - 30 min</td>
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<td></td>
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<tr>
<td></td>
<td>• 30 - 60 min</td>
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<tr>
<td></td>
<td>• &gt; 60 min</td>
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</tr>
<tr>
<td>1.3 Funding of dental care provided</td>
<td>'How is your dental care for today funded?'</td>
<td></td>
<td>Patient questionnaire, some countries also from claims data</td>
<td>2.2</td>
<td>93</td>
<td>In</td>
<td>Important since there might be a perceived difference of care according to the type of funding.</td>
</tr>
<tr>
<td></td>
<td>• Public sector / public insurance scheme – fully funded</td>
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<tr>
<td></td>
<td>• Public sector / public insurance scheme – with co-payment</td>
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<tr>
<td></td>
<td>• Private insurance scheme</td>
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<tr>
<td></td>
<td>• Self-payer</td>
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<tr>
<td>1.4 Interval of dental check-ups</td>
<td>Time between dental check-ups AND / OR 'How often do you come to the dentist for a dental check-up?'</td>
<td></td>
<td>Patient questionnaire and/or claims data</td>
<td>2.5</td>
<td>93</td>
<td>In</td>
<td>Important for measuring and improving overall oral health</td>
</tr>
<tr>
<td></td>
<td>• 3-4 times a year</td>
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<tr>
<td></td>
<td>• 2 times a year</td>
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<tr>
<td></td>
<td>• Once a year</td>
<td></td>
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<tr>
<td></td>
<td>• Irregularly</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Never</td>
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</tbody>
</table>
### Appendix 2. Continued

<table>
<thead>
<tr>
<th>Topics</th>
<th>Descriptor</th>
<th>Source/Note</th>
<th>Mean</th>
<th>Agreement (%)</th>
<th>Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 Referral by your dentist</td>
<td>‘Have you ever been referred by your dentist to:’</td>
<td>Patient questionnaire</td>
<td>1.9</td>
<td>70</td>
<td>In</td>
<td>For some countries this will provide important information since a substantial part of care is provided by others.</td>
</tr>
<tr>
<td></td>
<td>• Oral hygienists</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Periodontist (gum disease)</td>
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<tr>
<td></td>
<td>• Root canal specialists</td>
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<tr>
<td></td>
<td>• Orthodontist</td>
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<tr>
<td></td>
<td>• Other (none or more than one possible)</td>
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</tr>
<tr>
<td>1.6 Decision not to proceed with recommended dental care solely due to costs</td>
<td>‘Have you ever decided not to proceed with dental care solely due to costs?’</td>
<td>Patient questionnaire</td>
<td>2.2</td>
<td>90</td>
<td>In</td>
<td>Important since it might affect the decision for a treatment (plan).</td>
</tr>
<tr>
<td></td>
<td>Yes / No</td>
<td></td>
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</tr>
<tr>
<td>Group 2 – Symptoms and diagnosis</td>
<td></td>
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</tr>
<tr>
<td>2.1 Current symptoms</td>
<td>‘Do you currently suffer from...?’</td>
<td>Patient questionnaire</td>
<td>2.7</td>
<td>96</td>
<td>In topic 2.7 merged together</td>
<td>Important basic information that is vital for diagnosis and treatment planning.</td>
</tr>
<tr>
<td></td>
<td>• Pain</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Discomfort</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>• Bleeding</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Dry mouth</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bad taste</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bad breath</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2 Medical history</td>
<td>‘My dentist asked me about my medical history and what medicines I am taking?’</td>
<td>Patient questionnaire</td>
<td>2.5</td>
<td>92</td>
<td>In</td>
<td>Basic information that is needed for an appropriate treatment (plan). Note: some find only dental history important and not medical history.</td>
</tr>
<tr>
<td></td>
<td>Yes/No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3 Number of teeth</td>
<td>‘Adults can have up to 32 natural teeth (that includes wisdom teeth), but over time people lose some of them. How many natural teeth have you got?... (Count total number of teeth)’</td>
<td>Patient questionnaire</td>
<td>2.1</td>
<td>68</td>
<td>In</td>
<td>Important for oral health, however difficult as self-reported measure of patients.</td>
</tr>
</tbody>
</table>
### Appendix 2. Continued

<table>
<thead>
<tr>
<th>Topics</th>
<th>Descriptor</th>
<th>Source/Note</th>
<th>Mean</th>
<th>Agreement (%)</th>
<th>Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4 X-rays</td>
<td>'Number of X-rays taken in the previous 12/24/36 months' AND/OR 'Have you had any x-rays taken by your dentist in the last 12/24/36 months?'</td>
<td>Patients questionnaire and/or claims data</td>
<td>2.1</td>
<td>79</td>
<td>In</td>
<td>Important for diagnosis and further treatment, but self-report by patients might be biased as they will not remember.</td>
</tr>
<tr>
<td>2.5 Periodontal examination</td>
<td>'Dentist performs formal periodontal disease scoring (bleeding score, plaque score, pocket depth, etc.)'</td>
<td>Claims data</td>
<td>2.5</td>
<td>92</td>
<td>In</td>
<td>Important for oral health status. Especially an important topic since in some countries there is no registration of this.</td>
</tr>
<tr>
<td>2.6 Oral mucosa and cancer screening</td>
<td>-</td>
<td>Important topic, but how to retrieve this information accurately, completely and reliable?</td>
<td>2.5</td>
<td>89</td>
<td>In</td>
<td>Important for a dentist to measure however question are raised on how this could be measured, since in most cases patients won't know because it is part of the dental examination.</td>
</tr>
<tr>
<td>2.7 Temporomandibular joint dysfunction (dysfunction of muscles, joints and/or jaw)</td>
<td>'My dentist asks me about any problems with my jaw muscles or joints' Yes/No</td>
<td>Patient questionnaire</td>
<td>1.9</td>
<td>64</td>
<td>Out</td>
<td>(Merged with topic 2.1)</td>
</tr>
<tr>
<td>Add new topic on dental caries examination</td>
<td>'Does your dentist usually examine your teeth for new cavities?' Yes/No</td>
<td>Patients questionnaire</td>
<td>-</td>
<td>-</td>
<td>In (added)</td>
<td>Rose to be a missing topic in the list while it is an important part of daily practice.</td>
</tr>
</tbody>
</table>
### Appendix 2. Continued

<table>
<thead>
<tr>
<th>Topics</th>
<th>Descriptor</th>
<th>Source/Note</th>
<th>Mean</th>
<th>Agreement (%)</th>
<th>Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group 3 – health behaviours</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3.1 Tooth brushing</strong></td>
<td>‘How often do you usually brush your teeth?’</td>
<td>Patient questionnaire</td>
<td>2.8</td>
<td>96</td>
<td>In</td>
<td>Important topic however might give socially desirable answers.</td>
</tr>
<tr>
<td></td>
<td>• Irregularly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Less than once a day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Once a day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Twice a day</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• More than twice a day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3.2 Use of fluoride toothpaste</strong></td>
<td>‘Do you use fluoride toothpaste?’</td>
<td>Patient questionnaire</td>
<td>2.2</td>
<td>77</td>
<td>In</td>
<td>Debated topic. Some people agree that it’s not relevant because &gt;95% use fluoride toothpaste. Others are still interested in capturing the percentage that does not use fluoride (nature trend) as this might affect oral health.</td>
</tr>
<tr>
<td></td>
<td>• Yes/No/Don’t know</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3.3 Interdental cleaning</strong></td>
<td>‘How often do you use tooth picks, floss or interdental brushes?’</td>
<td>Patient questionnaire</td>
<td>2.5</td>
<td>89</td>
<td>In</td>
<td>Found important however evidence is not clear on this.</td>
</tr>
<tr>
<td></td>
<td>• Never</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Once a month or less</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Several times a month</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Several times a week</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Daily</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3.4 Smoking</strong></td>
<td>‘Do you smoke tobacco?’</td>
<td>Patient questionnaire</td>
<td>2.6</td>
<td>93</td>
<td>In</td>
<td>Important topic for general and oral health.</td>
</tr>
<tr>
<td></td>
<td>• Yes, I am a current smoker</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>• No, but I have been a smoker in the past</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No, I have never been a smoker</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 2. Continued

<table>
<thead>
<tr>
<th>Topics</th>
<th>Descriptor</th>
<th>Source/Note</th>
<th>Mean</th>
<th>Agreement (%)</th>
<th>Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5 Alcohol consumption</td>
<td>’How often do you drink alcohol?’</td>
<td>Patient questionnaire</td>
<td>2.0</td>
<td>74</td>
<td>In</td>
<td>Important topic for health however debate on the effectiveness of advice on alcohol intake is part of the role of a dentist.</td>
</tr>
<tr>
<td></td>
<td>• Never</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Once a month or less</td>
<td></td>
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<tr>
<td></td>
<td>• 2-4 times a month</td>
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<td></td>
<td>• 2-3 times a week</td>
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<tr>
<td></td>
<td>• 4-5 times a week</td>
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<tr>
<td></td>
<td>• More than 5 times a week</td>
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</tr>
<tr>
<td>3.6 Diet</td>
<td>’How often do you eat something between meals?’</td>
<td>Patient questionnaire</td>
<td>2.3</td>
<td>81</td>
<td>In</td>
<td>Basic information especially important in relation to caries.</td>
</tr>
<tr>
<td></td>
<td>• Never</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Less than once a day</td>
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<tr>
<td></td>
<td>• 1-2 times a day</td>
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<tr>
<td></td>
<td>• 3-5 times a day</td>
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<tr>
<td></td>
<td>• More than 5 times a day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>’How often do you drink acidic drinks during the day (fruit juices, fizzy drinks, energy drinks or squash)?’</td>
<td>Patient questionnaire</td>
<td>2.3</td>
<td>81</td>
<td>In</td>
<td>Basic information especially important in relation to caries.</td>
</tr>
<tr>
<td></td>
<td>• Never</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Less than once a day</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• 1-2 times a day</td>
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<tr>
<td></td>
<td>• 3-5 times a day</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• More than 5 times a day</td>
<td></td>
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</tbody>
</table>

**Group 4 – Oral treatments**

| 4.1 Fillings          | Number of fillings in the past 12/24/36 months, AND/OR                      | Claims data and perhaps patient questionnaire                             | 2.6  | 100           | In       | Important basic information, but patients might not remember or know this. |
|                       | ’Have you had any new fillings in the last 12/24/36 months?’               |                                                                            |      |               |          |                                                                        |
|                       | • Yes/No                                                                     |                                                                            |      |               |          |                                                                        |
## Appendix 2. Continued

<table>
<thead>
<tr>
<th>Topics</th>
<th>Descriptor</th>
<th>Source/Note</th>
<th>Mean</th>
<th>Agreement (%)</th>
<th>Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2 Root canal treatment</td>
<td>Number of root canal treatment in the past 12/24/36 months. AND/OR ‘Have you had any root canal treatment done in the last 12/24/36 months?’ • Yes/No</td>
<td>Claims data and perhaps patient questionnaire</td>
<td>2.3</td>
<td>96</td>
<td>In</td>
<td>High agreement on including this topic</td>
</tr>
<tr>
<td>4.3 Crowns, bridges and veneers/facings</td>
<td>Number of crowns, bridges or veneers/facings in the past 12/24/36 months. AND/OR ‘Have you had any crowns, bridges or veneers/facings in the last 12/24/36 months?’ • Yes/No</td>
<td>Claims data and perhaps patient questionnaire</td>
<td>2.2</td>
<td>88</td>
<td>In</td>
<td>Majority agrees to include the topic, but comments are made on this topic being an aesthetic topic and not an oral health measure.</td>
</tr>
<tr>
<td>4.4 Retreatment</td>
<td>‘In the last 12/24/36 months, have you had any filling, root canal treatment, crown or bridges that had to be redone within 12 months of the original treatment?’ • Yes • No • Unsure/can’t remember</td>
<td>Claims data and perhaps patient questionnaire</td>
<td>2.1</td>
<td>78</td>
<td>In</td>
<td>Suggestion to use 24 months. Some doubts on the reliability of the gathered information</td>
</tr>
<tr>
<td>4.5 Periodontal treatment</td>
<td>Number of patients with claims for periodontal treatment in the past 12/24/36 months. AND/OR ‘Did you receive any treatment from a dental healthcare provider for gum disease in the last 12/24/36 months?’ • Yes/No</td>
<td>Claims data and perhaps patient questionnaire</td>
<td>2.4</td>
<td>100</td>
<td>In</td>
<td>Part of basic oral healthcare.</td>
</tr>
<tr>
<td>Topics</td>
<td>Descriptor</td>
<td>Source/Note</td>
<td>Mean</td>
<td>Agreement (%)</td>
<td>Included</td>
<td>Reason</td>
</tr>
<tr>
<td>--------</td>
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<td>------</td>
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</tr>
<tr>
<td>4.6 Extractions</td>
<td>Number of extractions in the past 12/24/36 months, AND/OR ‘Have you had any teeth removed in the last 12/24/36 months?’</td>
<td>Claims data and perhaps patient questionnaire</td>
<td>2.6</td>
<td>96</td>
<td>In</td>
<td>Useful information and can validate the topic on how many teeth do you have.</td>
</tr>
<tr>
<td>4.7 Partial removable dentures</td>
<td>Number of partial removable dentures placed in the past 12/24/36 months, AND/OR ‘Did you get a new partial removable denture in the last 12/24/36 months?’</td>
<td>Claims data and perhaps patient questionnaire</td>
<td>2.2</td>
<td>89</td>
<td>In</td>
<td>Majority agrees this is important information for the dentist and patients will be able to answer this.</td>
</tr>
<tr>
<td>4.8 Full removable dentures</td>
<td>Number of full removable dentures placed in the past 12/24/36 months, AND/OR ‘Did you get a new full removable denture in the last 12/24/36 months?’</td>
<td>Claims data and perhaps patient questionnaire</td>
<td>2.3</td>
<td>93</td>
<td>In</td>
<td>Majority agrees this is important information for the dentist and patients will be able to answer this.</td>
</tr>
<tr>
<td>4.9 Dental implants</td>
<td>Number of dental implants in the past 12/24/36 months, AND/OR ‘Have you had any dental implants placed in the last 12/24/36 months?’</td>
<td>Claims data and perhaps patient questionnaire</td>
<td>2.3</td>
<td>93</td>
<td>In</td>
<td>Majority agrees this is important information for the dentist and patients will be able to answer this.</td>
</tr>
<tr>
<td>Group 5 – Oral prevention</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5.1 Fissure sealants</td>
<td>Number of fissure sealants in the past 12/24/36 months.</td>
<td>Claims data and patient questionnaire</td>
<td>2.3</td>
<td>89</td>
<td>In</td>
<td>Important prevention topic. Note that the cases where it has fallen out are probably not included</td>
</tr>
</tbody>
</table>
### Appendix 2. Continued

<table>
<thead>
<tr>
<th>Topics</th>
<th>Descriptor</th>
<th>Source/Note</th>
<th>Mean</th>
<th>Agreement (%)</th>
<th>Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2 Fluoride application</td>
<td>Number of fluoride application in the past 12/24/36 months.</td>
<td>Claims data and perhaps patient questionnaire</td>
<td>2.4</td>
<td>89</td>
<td>In</td>
<td>Important prevention topic. Note: how to measure over and under use.</td>
</tr>
<tr>
<td>5.3 Professional cleaning (scale, polish and plaque removal)</td>
<td>Number of claims for professional cleaning in the past 12/24/36 months. AND/OR ‘Have you had a ‘clean and polish’ done in the dental practice in the last 12/24/36 months?” • Yes/No</td>
<td>Claims data and perhaps patient questionnaire</td>
<td>2.4</td>
<td>100</td>
<td>In (rephrase)</td>
<td>Important part of daily practice. Clean and polish instead of scale and polish.</td>
</tr>
<tr>
<td>5.4 Oral hygiene advice</td>
<td>‘My dentist advises me on tooth brushing and other aspects of oral hygiene’ • Yes/No</td>
<td>Patient questionnaire</td>
<td>2.6</td>
<td>100</td>
<td>In</td>
<td>Essential advice</td>
</tr>
<tr>
<td>5.5 Dietary advice</td>
<td>‘My dentist gives me dietary advice to prevent dental caries and/or erosion. • Yes/No</td>
<td>Patient questionnaire</td>
<td>2.4</td>
<td>93</td>
<td>In</td>
<td>Important information in relation to caries and erosion which are important factors in oral health</td>
</tr>
<tr>
<td>5.6 Smoking advice</td>
<td>‘My dentist advises me about the effects of smoking on my health’ • Yes/No</td>
<td>Patient questionnaire</td>
<td>2.3</td>
<td>89</td>
<td>In</td>
<td>Question only for adults (not children)</td>
</tr>
<tr>
<td>5.7 Caries under surveillance</td>
<td>‘Has your dentist talked to you about an early caries lesion in the last 12/24/36 months that only required observation?’</td>
<td>Patient questionnaire</td>
<td>2.0</td>
<td>73</td>
<td>In</td>
<td>Informative but difficult to get this data from patients and dentists might provide socially desirable answers.</td>
</tr>
</tbody>
</table>

**Group 6 – Patient perception**

| 6.1 Oral function (chewing, speaking, etc.) | ‘I am satisfied with my ability to chew, eat and speak.’ • Strongly agree • Agree • Disagree • Strongly disagree | Patient questionnaire | 2.4  | 93            | In       | Important feedback information (quality of life)                       |
## Appendix 2. Continued

<table>
<thead>
<tr>
<th>Topics</th>
<th>Descriptor</th>
<th>Source/Note</th>
<th>Mean</th>
<th>Agreement (%)</th>
<th>Included</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.2 Appearance of teeth</td>
<td>’I am satisfied with the appearance of my teeth.’</td>
<td>Patient questionnaire</td>
<td>2.0</td>
<td>77</td>
<td>In</td>
<td>Important factor for patients, aesthetics increasingly important to people (quality of life).</td>
</tr>
<tr>
<td></td>
<td>• Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Agree</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>• Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.3 Dental anxiety</td>
<td>’I was anxious before attending the dentist today’</td>
<td>Patient questionnaire</td>
<td>2.1</td>
<td>81</td>
<td>In</td>
<td>Important from patient management perspective.</td>
</tr>
<tr>
<td></td>
<td>• Strongly agree</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>• Agree</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>• Neutral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.4 Shared decision making</td>
<td>’Does your dentist involve you in making clinical decisions as much you want to be?’</td>
<td>Patient questionnaire</td>
<td>2.4</td>
<td>92</td>
<td>In</td>
<td>It is an obligation for the dentist to involve their patient in the decision making.</td>
</tr>
<tr>
<td></td>
<td>• Always</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sometimes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Rarely</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Never</td>
<td></td>
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## Appendix 3. Voting of oral healthcare topics during the World Café

<table>
<thead>
<tr>
<th>Topics of oral healthcare</th>
<th>Agreed (%)</th>
<th>Disagreed (%)</th>
<th>Abstained (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group 1: Access to dental care</strong></td>
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<td></td>
</tr>
<tr>
<td>Reason for dental visit</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Funding of dental care provided</td>
<td>95</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Interval of dental check-ups by a dentist</td>
<td>95</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Referrals</td>
<td>50</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Decision not to proceed with recommended dental care solely due to costs</td>
<td>95</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>(Decision not to proceed with recommended dental care for other reasons than costs)</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Access to dental care</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Group 2: Symptoms and diagnosis</strong></td>
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<td></td>
</tr>
<tr>
<td>Current symptoms</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Communication (prompting questions) about symptoms and wishes</td>
<td>90</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Medical history</td>
<td>95</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Social history</td>
<td>85</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Number of teeth</td>
<td>60</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>X-rays</td>
<td>65</td>
<td>15</td>
<td>20</td>
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<tr>
<td>Periodontal examination</td>
<td>90</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Oral mucosa and cancer screening</td>
<td>65</td>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>Examination for new caries lesions</td>
<td>85</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td><strong>Group 3: Health behaviours</strong></td>
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<tr>
<td>Tooth brushing</td>
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<td>0</td>
</tr>
<tr>
<td>Use of fluoride toothpaste</td>
<td>100</td>
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<tr>
<td>Interdental cleaning</td>
<td>90</td>
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<td>0</td>
</tr>
<tr>
<td>Smoking</td>
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<td>5</td>
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<tr>
<td>Alcohol consumption</td>
<td>75</td>
<td>10</td>
<td>15</td>
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<tr>
<td>Diet</td>
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<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Recreational drug use</td>
<td>35</td>
<td>35</td>
<td>30</td>
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<td><strong>Group 4: Oral treatments</strong></td>
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<tr>
<td>Periodontal treatment</td>
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## Appendix 3. Continued

<table>
<thead>
<tr>
<th>Topics of oral healthcare</th>
<th>Agreed (%)</th>
<th>Disagreed (%)</th>
<th>Abstained (%)</th>
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<tbody>
<tr>
<td>Fillings</td>
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<td>0</td>
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<tr>
<td>Root canal treatment</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Crowns, bridges and veneers/facings</td>
<td>95</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Retreatment</td>
<td>75</td>
<td>15</td>
<td>10</td>
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<tr>
<td>Extraction</td>
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<tr>
<td>Partial removable dentures</td>
<td>95%</td>
<td>5</td>
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</tr>
<tr>
<td>Full removable dentures</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dental implants</td>
<td>95</td>
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<td>5</td>
</tr>
<tr>
<td>Complications as a result of treatment</td>
<td>85</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Antibiotics prescribing</td>
<td>95</td>
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</table>

### Group 5: Oral prevention

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<th>Disagreed (%)</th>
<th>Abstained (%)</th>
</tr>
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<tbody>
<tr>
<td>Fissure sealants</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fluoride application</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Professional cleaning (clean and polish)</td>
<td>85</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Oral hygiene advice</td>
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<td>0</td>
</tr>
<tr>
<td>Dietary advice</td>
<td>80</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Smoking advice</td>
<td>80</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Caries lesions under surveillance</td>
<td>90</td>
<td>0</td>
<td>10</td>
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<tr>
<td>Risk assessment for tailored prevention</td>
<td>90</td>
<td>0</td>
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### Group 6: Patient perception

<table>
<thead>
<tr>
<th></th>
<th>Agreed (%)</th>
<th>Disagreed (%)</th>
<th>Abstained (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral function (chewing, speaking, etc.)</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Appearance of teeth</td>
<td>90</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Dental anxiety</td>
<td>95</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Shared decision making (active patient involvement)</td>
<td>100</td>
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<td>0</td>
</tr>
<tr>
<td>Patients' satisfaction with received treatment</td>
<td>95</td>
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<td>5</td>
</tr>
<tr>
<td>Patients' perceptions on dental care</td>
<td>100</td>
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</tr>
</tbody>
</table>
Appendix 4. Measures for oral healthcare – The ADVOCATE project.

For adults

Access to dental care

1. Reason for dental visit

   * Questionnaire

   Definition: Percentage of adults who respond with answer “a” / “b” / “c” / “d” / “e” to the question: “Why did you visit the dentist today?”

   Numerator: Number of adults responding a. “new symptoms, unplanned treatment” / b. “planned check-up” / c. “planned treatment (for example a filling, extraction, root canal treatment, etc.)” / d. “planned preventative treatment (for example clean and polish, instructions for oral hygiene, etc.)” / e. “trauma, emergency treatment”

   Denominator: Total number of adults responding to the question – survey responses: “new symptoms, unplanned treatment”, “planned check-up”, “planned treatment (for example a filling, extraction, root canal treatment, etc.)”, “planned preventative treatment (for example clean and polish, instructions for oral hygiene, etc.)” or “trauma, emergency treatment”

   Type: Process measure

2. Funding of dental care provided

   * Questionnaire

   Definition: Percentage of adults who respond with answer “a” / “b” / “c” / “d” to the question: “How was your dental care paid for today?”

   Numerator: Number of adults responding a. “completely by myself” / b. “fully insured by private or public insurance” / c. “partially insured by private or public insurance” / d. “don’t know”

   Denominator: Total number of adults responding to the question – survey responses: “completely by myself”, “fully insured by private or public insurance”, “partially insured by private or public insurance” or “don’t know”

   Type: Structure measure
Appendices

3. Interval of dental check-ups by a dentist
   * Questionnaire
   Definition: Percentage of adults who respond with answer “a” / “b” / “c” / “d” / “e” / “f” (or a combination) to the question: “How often do you usually come for a check-up at the dentist?”
   Denominator: Total number of adults responding to the question – survey responses: “every 3 months”, “every 6 months”, “every 9 months”, “every 12 months”, “Irregularly” or “Never”
   ** Claims
   Definition: Mean time interval (in months) between two consecutive dental check-ups of adults
   Numerator: Time (in months) between the last two consecutive dental check-ups
   Denominator: Total number of adults with at least two dental check-up services claimed, of which one in the current year
   Type: Process measure

4. Referrals
   * Questionnaire
   Definition: Percentage of adults who respond with answer “a” / “b” / “c” / “d” / “e” / “f” to the question: “Have you ever been sent by your dentist to a...?”
   Denominator: Total number of adults responding to the question – survey responses: “hygienist”, “periodontist (problems with gums)”, “root canal specialist”, “orthodontist”, “other” or “other”
   Type: Process measure
5. Decision not to proceed with recommended dental care solely due to costs

* Questionnaire

Definition: Percentage of adults who respond “yes” to the question: “Have you ever decided not to proceed with a dental treatment purely due to cost?”

Numerator: Number of adults responding “yes”

Denominator: Total number of adults responding to the question – survey responses: “yes” or “no”

Type: Process measure

6. Decision not to proceed with recommended dental care for other reasons than costs

* Questionnaire

Definition: Percentage of adults who respond “yes” to the question: “Have you ever decided not to proceed with a dental treatment for other reasons than cost?”

Numerator: Number of adults responding “yes”

Denominator: Total number of adults responding to the question – survey responses: “yes” or “no”

Type: Process measure

7. Access to dental care (affordability, availability and acceptability)

* Questionnaire

Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, have you had any difficulties getting an appointment with the dentist (for example, distance to dentist, dentist’s appointments full, or local dentists not accepting new patients)?”

Numerator: Number of adults responding “yes”

Denominator: Total number of adults responding to the question – survey responses: “yes” or “no”

Type: Structure measure
Symptoms and diagnosis

8. Current symptoms

Definition: Percentage of adults who respond with answer “a” / “b” / “c” / “d” / “e” / “f” / “g” / “h” to the question: “Before you visited the dentist today, did you have any of the following..?”


Denominator: Total number of adults responding to the question – survey responses: “toothache or pain in the mouth”, “discomfort in the mouth”, “bleeding gums”, “dry mouth”, “bad taste”, “bad breath”, “problem with jaw, muscles or joints” or “none of the above”

Type: Outcome measure

9. Communication about symptoms and wishes

Questionnaire Definition: Percentage of adults who respond “yes” to the question: “Does your dentist usually have a conversation with you about current problems in your mouth and treatment preferences?”

Numerator: Number of adults responding “yes”

Denominator: Total number of adults responding to the question – survey responses: “yes” or “no”

Type: Process measure

10. Medical history

Questionnaire Definition: Percentage of adults who respond “yes” to the question: “Does your dentist ask you in every visit about your medical history and medicines you use?”

Numerator: Number of adults responding “yes”

Denominator: Total number of adults responding to the question – survey responses: “yes” or “no”

Type: Process measure
11. Social history

- Questionnaire

Definition: Percentage of adults who respond “yes” to the question: “When it is appropriate, does your dentist usually ask you about your personal situation (for example, life events)?”

Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question – survey responses: “yes” or “no”
Type: Process measure

12. Number of teeth

- Questionnaire

Definition: Mean number of teeth of adults, measured with the question: “Adults can have up to 32 natural teeth (that includes wisdom teeth), but over time people lose some of them. How many natural teeth have you got? ... (count total number of teeth)?”

Numerator: Sum of the number of teeth of adults responding to the question
Denominator: Total number of adults responding to the question
Type: Outcome measure

13. X-rays

- Questionnaire

Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, have you had any x-rays taken by your dentist?”

Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question – survey responses “yes”, “no” or “don’t know”

Claims

Definition: Percentage of adults with x-rays claimed per year
Numerator: Number of adults with at least one x-ray claimed per year
Denominator: Total number of adults with at least one service claimed per year
Type: Process measure
Appendices

14. Periodontal examination

* Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “Does your dentist usually check for gum disease?”
Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question – survey responses ‘yes’, ‘no’ or ‘don’t know’

* Claims
Definition: Percentage of adults with a periodontal examination claimed per year
Numerator: Number of adults with at least one periodontal examination claimed per year
Denominator: Total number of adults with at least one service claimed per year
Type: Process measure

15. Oral mucosa and cancer screening

* Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “Does your dentist usually examine your neck and mouth for signs of rare diseases such as oral cancer?”
Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question – survey responses ‘yes’, ‘no’ or ‘don’t know’
Type: Process measure

16. Examination for new caries lesions

* Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “Does your dentist usually check for new holes in your teeth?”
Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question – survey responses ‘yes’, ‘no’ or ‘don’t know’
Type: Process measure
**Health behaviours**

17. **Tooth brushing**

   - **Questionnaire**
   - **Definition:** Percentage of adults who respond with answer “a” / “b” / “c” / “d” / “e” (or a combination) to the question: “How often do you usually brush your teeth?”
   - **Numerator:** Number of adults responding a. “irregularly” / b. “less than once a day” / c. “once a day” / d. “twice a day” / e. “more than twice a day”
   - **Denominator:** Total number of adults responding to the question – survey responses: “irregularly”, “less than once a day”, “once a day”, “twice a day” or “more than twice a day”
   - **Type:** Outcome measure

18. **Use of fluoride toothpaste**

   - **Questionnaire**
   - **Definition:** Percentage of adults who respond “yes” to the question: “Do you use fluoride toothpaste?”
   - **Numerator:** Number of adults responding “yes”
   - **Denominator:** Total number of adults responding to the question – survey responses “yes”, “no” or “don’t know”
   - **Type:** Outcome measure

19. **Interdental cleaning**

   - **Questionnaire**
   - **Definition:** Percentage of adults who respond with answer “a” / “b” / “c” / “d” / “e” (or a combination) to the question: “How often do you use toothpicks, floss or interdental brushes?”
   - **Numerator:** Number of adults responding a. “never” / b. “sometimes” / c. “several times a month” / d. “several times a week” / e. “daily”
   - **Denominator:** Total number of adults responding to the question – survey responses: “never”, “sometimes”, “several times a month”, “several times a week” or “daily”
   - **Type:** Outcome measure
20. Smoking

* Questionnaire
Definition: Percentage of adults who respond “yes, I smoke” to the question: “Do you smoke tobacco?”
Numerator: Number of adults responding “yes, I smoke”
Denominator: Total number of adults responding to the question – survey responses: “yes, I smoke”, “no, but I have been a smoker in the past” or “No, I have never been a smoker”
Type: Outcome measure

21. Alcohol consumption

* Questionnaire
Definition: Percentage of adults who respond with answer “a” / “b” / “c” / “d” / “e” / “f” (or a combination) to the question: “How often do you drink alcohol?”
Numerator: Number of adults responding a. “never” / b. “once a month or less” / c. “2-4 times a month” / d. “2-3 times a week” / e. “4-5 times a week” / f. “more than 5 times a week”
Denominator: Total number of adults responding to the question – survey responses: “never”, “once a month or less”, “2-4 times a month”, “2-3 times a week”, “4-5 times a week” or “more than 5 times a week”
Type: Outcome measure

22. Diet

* Questionnaire
Definition: Percentage of adults who respond with answer “a” / “b” / “c” / “d” / “e” (or a combination) to the question: “How often do you consume sugary foods and/or drinks between meals?”
Numerator: Number of adults responding a. “never” / b. “less than once a day” / c. “1-2 times a day” / d. “3-5 times a day” / e. “more than 5 times a day”
Denominator: Total number of adults responding to the question – survey responses: “never”, “less than once a day”, “1-2 times a day”, “3-5 times a day” or “more than 5 times a day”
Type: Outcome measure
Oral treatments

23. Fillings

* Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, have you had any new fillings?”
Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question – survey responses “yes”, “no” or “don’t know”

* Claims
Definition: Percentage of adults with fillings claimed per year
Numerator: Number of adults with at least one filling claimed per year
Denominator: Total number of adults with at least one service claimed per year
Type: Process measure

24. Root canal treatment

* Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, have you had any root canal treatment?”
Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question – survey responses “yes”, “no” or “don’t know”

* Claims
Definition: Percentage of adults with root canal treatment claimed per year
Numerator: Number of adults with at least one root canal treatment claimed per year
Denominator: Total number of adults with at least one service claimed per year
Type: Process measure

25. Crowns and bridges

* Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, have you had a new crown or a bridge?”
Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question – survey responses “yes”, “no” or “don’t know”

* Claims
Definition: Percentage of adults with crowns or bridges claimed per year
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Numerator: Number of adults with at least one crown or bridge claimed per year
Denominator: Total number of adults with at least one service claimed per year
Type: Process measure

26. Retreatment

* Questionnaire
Definition: Percentage of adults who respond "yes" to the question: "In the last 24 months, have you had any fillings, root canal treatments, crowns or bridges that had to be redone within 2 years of the original treatment?"
Numerator: Number of adults responding "yes"
Denominator: Total number of adults responding to the question (excluding adults responding "not applicable") – survey responses "yes", "no", "don't know" or "not applicable"

* Claims
Definition: Percentage of adults with retreatment of a restoration within 2 years of the original treatment
Numerator: Number of adults with at least one filling, root canal treatment, crown or bridge claimed in a tooth that received the same treatment within the preceding 2 years
Denominator: Total number of adults with at least one service claimed per year
Type: Process measure

27. Periodontal treatment

* Questionnaire
Definition: Percentage of adults who respond "yes" to the question: "In the last 24 months, have you received any treatment for gum disease?"
Numerator: Number of adults responding "yes"
Denominator: Total number of adults responding to the question – survey responses "yes", "no" or "don't know"

* Claims
Definition: Percentage of adults with periodontal treatment claimed per year
Numerator: Number of adults with at least one periodontal treatment claimed per year
Denominator: Total number of adults with at least one service claimed per year
Type: Process measure
28. **Extraction**  
* **Questionnaire**  
**Definition:** Percentage of adults who respond "yes" to the question: "In the last 24 months, have you had any teeth removed?"  
**Numerator:** Number of adults responding "yes"  
**Denominator:** Total number of adults responding to the question – survey responses "yes", "no" or "don't know"  
* **Claims**  
**Definition:** Percentage of adults with extractions claimed per year  
**Numerator:** Number of adults with at least one periodontal treatment claimed per year  
**Denominator:** Total number of adults with at least one service claimed per year  
**Type:** Process measure

29. **Partial removable dentures**  
* **Questionnaire**  
**Definition:** Percentage of adults who respond "yes" to the question: "In the last 24 months, have you had a partial removable denture (false teeth) made (this could be a first partial removable denture, or a repair or a renewal)?"  
**Numerator:** Number of adults responding "yes"  
**Denominator:** Total number of adults responding to the question – survey responses "yes", "no" or "don't know"  
* **Claims**  
**Definition:** Percentage of adults with partial removable dentures claimed per year  
**Numerator:** Number of adults with at least one partial removable denture (or a repair) claimed per year  
**Denominator:** Total number of adults with at least one service claimed per year  
**Type:** Process measure

30. **Full removable dentures**  
* **Questionnaire**  
**Definition:** Percentage of adults who respond "yes" to the question: "In the last 24 months, have you had a full removable denture (false teeth) made (this could be a first removable denture, or a repair or a renewal)?"  
**Numerator:** Number of adults responding "yes"
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31. Dental implants

Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, have you had any dental implants placed?”

Numerator: Number of adults responding “yes”

Denominator: Total number of adults responding to the question – survey responses “yes”, “no” or “don’t know”

Claims

Definition: Percentage of adults with implants claimed per year

Numerator: Number of adults with at least one implant claimed per year

Denominator: Total number of adults with at least one service claimed per year

Type: Process measure

32. Aesthetic treatment (veneers, facings, whitening)

Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, have you had treatment done purely to improve the appearance of your teeth (restorations in front teeth, teeth whitening, orthodontic treatment)?”

Numerator: Number of adults responding “yes”

Denominator: Total number of adults responding to the question – survey responses “yes”, “no” or “don’t know”

Claims

Definition: Percentage of adults with aesthetic treatment claimed per year

Numerator: Number of adults with at least one aesthetic treatment claimed per year

Denominator: Total number of adults with at least one service claimed per year

Type: Process measure
Appendices

33. Complications as a result of treatment

* Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, have you had any complications as a result of the treatment you received at the dentist?”
Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question (excluding adults responding “not applicable”) – survey responses “yes”, “no”, “don’t know” or “not applicable”
Type: Outcome measure

34. Antibiotics prescribing

* Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, have you received antibiotic treatment from your dentist?”
Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question – survey responses “yes”, “no” or “don’t know”
Type: Process measure

Oral prevention

35. Fissure sealants

* Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, have you had a protective layer put onto your teeth (sealant)?”
Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question – survey responses “yes”, “no” or “don’t know”

* Claims
Definition: Percentage of adults with fissure sealants claimed per year
Numerator: Number of adults with at least one fissure sealant claimed per year
Denominator: Total number of adults with at least one service claimed per year
Type: Process measure
Appendices

36. Fluoride application

* Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, have you had a fluoride treatment put onto your teeth?”
Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question – survey responses ‘yes’, ‘no’ or “don’t know”
* Claims
Definition: Percentage of adults with fluoride application claimed per year
Numerator: Number of adults with at least one fluoride application claimed per year
Denominator: Total number of adults with at least one service claimed per year
Type: Process measure

37. Professional cleaning (clean and polish)

* Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, have you had a ‘clean and polish’ done?”
Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question – survey responses ‘yes’, ‘no’ or “don’t know”
* Claims
Definition: Percentage of adults with professional cleaning claimed per year
Numerator: Number of adults with at least one professional cleaning service claimed per year
Denominator: Total number of adults with at least one service claimed per year
Type: Process measure

38. Oral hygiene advice

* Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “Does your dentist usually advise you on how to clean your teeth and general mouth care?”
Numerator: Number of adults responding “yes”
Denominator: Total number of adults responding to the question – survey responses ‘yes’ or “no”
* Claims
Definition: Percentage of adults with dental health education claimed per year
Numerator: Number of adults with at least one dental health education service claimed per year
Denominator: Total number of adults with at least one service claimed per year
Type: Process measure

39. Dietary advice
   * Questionnaire
   Definition: Percentage of adults who respond “yes” to the question: “Does your dentist usually give you advice on eating and drinking to prevent small holes and / or erosion?”
   Numerator: Number of adults responding “yes”
   Denominator: Total number of adults responding to the question – survey responses “yes” or “no”
   Type: Process measure

40. Smoking advice
   * Questionnaire
   Definition: Percentage of adults who respond “yes” to the question: “Does your dentist usually give you advise on the effects of smoking on your health?”
   Numerator: Number of adults responding “yes”
   Denominator: Total number of adults responding to the question (excluding adults responding “not applicable”) – survey responses “yes”, “no” or “not applicable”
   Type: Process measure

41. Caries under surveillance
   * Questionnaire
   Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, has your dentist talked to you about a small hole in the tooth enamel which needs to be kept an eye on?”
   Numerator: Number of adults responding “yes”
   Denominator: Total number of adults responding to the question – survey responses “yes”, “no” or “don't know”
   Type: Process measure
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Patient perception

42. Oral function (chewing, speaking, etc.)
   
   * Questionnaire
   
   Definition: Percentage of adults who respond “strongly agree” or “agree” to the question: “I am satisfied with how I can chew, eat and speak.”
   
   Numerator: Number of adults responding “strongly agree” or “agree”
   
   Denominator: Total number of adults responding to the question – survey responses “strongly agree”, “agree”, “disagree” or “strongly disagree”
   
   Type: Outcome measure

43. Appearance of teeth
   
   * Questionnaire
   
   Definition: Percentage of adults who respond “strongly agree” or “agree” to the question: “I am satisfied with how my teeth look.”
   
   Numerator: Number of adults responding “strongly agree” or “agree”
   
   Denominator: Total number of adults responding to the question – survey responses “strongly agree”, “agree”, “disagree” or “strongly disagree”
   
   Type: Outcome measure

44. Dental anxiety
   
   * Questionnaire
   
   Definition: Percentage of adults who respond “strongly agree” or “agree” to the question: “Before I visited the dentist today, I was anxious.”
   
   Numerator: Number of adults responding “strongly agree” or “agree”
   
   Denominator: Total number of adults responding to the question – survey responses “strongly agree”, “agree”, “neutral”, “disagree” or “strongly disagree”
   
   Type: -

45. Shared decision making (active patient involvement in treatment planning)
   
   * Questionnaire
   
   Definition: Percentage of adults who respond with answer “a” / “b” / “c” / “d” (or a combination) to the question: “Does your dentist usually involve you in making decisions about your dental care or treatments as much as you want to be?”
   
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Denominator: Total number of adults responding to the question – survey responses: “always”, “sometimes”, “seldom” or “never”

Type: Process measure

**46. Satisfaction with dental treatment / perception on dental care**

* Questionnaire

Definition: Mean rating of adults to the question: “Overall, how would you rate the care provided at this dental practice (‘1’ is very poor and ‘10’ is excellent)?”

Numerator: Sum of ratings of adults responding to the question

Denominator: Total number of adults responding to the question – survey responses: “1” to “10”

Type: Outcome measure

**Appendix 4. (continued). Measures for oral healthcare – The ADVOCATE project.**

**For children**

**Access to dental care**

**1. Reason for dental visit**

* Questionnaire

Definition: Percentage of parents/guardians who respond with answer “a” / “b” / “c” / “d” / “e” to the question: “Why did your child visit the dentist today?”

Numerator: Number of parents/guardians responding a. “new symptoms, unplanned treatment” / b. “planned check-up” / c. “planned treatment (for example a filling, extraction, root canal treatment, etc.” / d. “planned preventative treatment (for example clean and polish, instructions for oral hygiene, etc.” / e. “trauma, emergency treatment”

Denominator: Total number of parents/guardians responding to the question – survey responses: “new symptoms, unplanned treatment”, “planned check-up”, “planned treatment (for example a filling, extraction, root canal treatment, etc.”, “planned preventative treatment (for example clean and polish, instructions for oral hygiene, etc.” or “trauma, emergency treatment”
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Type: Process measure

2. Funding of dental care provided

* Questionnaire
Definition: Percentage of parents/guardians who respond with answer "a" / "b" / "c" / "d" to the question: “How was your child's dental care paid for today?”
Numerator: Number of parents/guardians responding a. "completely by myself" / b. "fully insured by private or public insurance" / c. "partially insured by private or public insurance" / d. "don't know"
Denominator: Total number of parents/guardians responding to the question – survey responses: “completely by myself”, “fully insured by private or public insurance”, “partially insured by private or public insurance” or “don’t know”

Type: Structure measure

3. Interval of dental check-ups by a dentist

* Questionnaire
Definition: Percentage of parents/guardians who respond with answer "a" / "b" / "c" / "d" / "e" / "f" (or a combination) to the question: “How often does your child usually come for a check-up at the dentist?”
Numerator: Number of parents/guardians responding a. "every 3 months" / b. "every 6 months" / c. "every 9 months" / d. "every 12 months" / e. "Irregularly" / f. "Never"
Denominator: Total number of parents/guardians responding to the question – survey responses: "every 3 months", "every 6 months", "every 9 months", "every 12 months", "Irregularly" or "Never"

Claims
Definition: Mean time interval (in months) between two consecutive dental check-ups of adults
Numerator: Time (in months) between the last two consecutive dental check-ups
Denominator: Total number of parents/guardians with at least two dental check-up services claimed, of which one in the current year

Type: Process measure

4. Referrals

* Questionnaire
Definition: Percentage of parents/guardians who respond with answer "a" / "b" / "c" / "d" / "e" / "f" to the question: "Has your child ever been sent by your dentist to a..?"

Numerator: Number of parents/guardians responding a. "hygienist" / b. "paediatric dentist" / c. "orthodontist" / d. "other" / e. "other"

Denominator: Total number of parents/guardians responding to the question – survey responses: "hygienist", "paediatric dentist", "orthodontist", "other" or "other"

Type: Process measure

5. Decision not to proceed with recommended dental care solely due to costs
   * Questionnaire
   Definition: Percentage of parents/guardians who respond "yes" to the question: "Have you ever decided not to proceed with a dental treatment for your child purely due to cost?"
   Numerator: Number of parents/guardians responding "yes"
   Denominator: Total number of parents/guardians responding to the question – survey responses: "yes" or "no"
   Type: Process measure

6. Decision not to proceed with recommended dental care for other reasons than costs
   * Questionnaire
   Definition: Percentage of parents/guardians who respond "yes" to the question: "Have you ever decided not to proceed with a dental treatment for your child for other reasons than cost?"
   Numerator: Number of parents/guardians responding "yes"
   Denominator: Total number of parents/guardians responding to the question – survey responses: "yes" or "no"
   Type: Process measure

7. Access to dental care (affordability, availability and acceptability)
   * Questionnaire
   Definition: Percentage of parents/guardians who respond "yes" to the question: "In the last 24 months, have you had any difficulties getting an appointment with the dentist for your child (for example, distance to dentist, dentist’s appointments full, or local dentists not accepting new patients)"
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Numerator: Number of parents/guardians responding “yes”
Denominator: Total number of parents/guardians responding to the question – survey responses: “yes” or “no”
Type: Structure measure

Symptoms and diagnosis

8. Current symptoms
Definition: Percentage of parents/guardians who respond with answer “a” / “b” / “c” / “d” / “e” / “f” / “g” / “h” to the question: “Before your child visited the dentist today, did you have any of the following…”
Denominator: Total number of parents/guardians responding to the question – survey responses: “toothache or pain in the mouth”, “discomfort in the mouth”, “bleeding gums”, “dry mouth”, “bad taste”, “bad breath”, “problem with jaw, muscles or joints” or “none of the above”
Type: Outcome measure

9. Communication about symptoms and wishes
‘Questionnaire
Definition: Percentage of parents/guardians who respond “yes” to the question: “Does your dentist usually have a conversation with you about current problems in your child’s mouth and treatment preferences?”
Numerator: Number of parents/guardians responding “yes”
Denominator: Total number of parents/guardians responding “yes”
Type: Process measure

10. Medical history
‘Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “Does your dentist ask you in every visit about your child’s medical history and medicines your child is using?”
Numerator: Number of adults responding “yes”
11. Social history

* Questionnaire

Definition: Percentage of parents/guardians who respond "yes" to the question: “When it is appropriate, does your dentist usually ask you about your child’s personal situation (for example, life events)?”

Numerator: Number of adults responding “yes”

Denominator: Total number of parents/guardians responding to the question – survey responses: “yes” or “no”

Type: Process measure

12. X-rays

* Questionnaire

Definition: Percentage of parents/guardians who respond “yes” to the question: “In the last 24 months, has your child had any x-rays taken by your dentist?”

Numerator: Number of parents/guardians responding “yes”

Denominator: Total number of parents/guardians responding to the question – survey responses “yes”, “no” or “don’t know”

* Claims

Definition: Percentage of children with x-rays claimed per year

Numerator: Number of children with at least one x-ray claimed per year

Denominator: Total number of parents/guardians with at least one service claimed per year

Type: Process measure

13. Examination for new caries lesions

* Questionnaire

Definition: Percentage of parents/guardians who respond “yes” to the question: “Does your dentist usually check your child’s teeth for new holes?”

Numerator: Number of parents/guardians responding “yes”

Denominator: Total number of parents/guardians responding to the question – survey responses “yes”, “no” or “don’t know”

Type: Process measure
Appendices

Health behaviours

14. Tooth brushing

* Questionnaire
Definition: Percentage of parents/guardians who respond with answer "a" / "b" / "c" / "d" / "e" (or a combination) to the question: “How often does your child usually brush his/her teeth?”
Numerator: Number of parents/guardians responding a. "irregularly" / b. "less than once a day" / c. "once a day" / d. "twice a day" / e. "more than twice a day"
Denominator: Total number of parents/guardians responding to the question – survey responses: "irregularly”, “less than once a day”, “once a day”, “twice a day” or “more than twice a day”
Type: Outcome measure

15. Use of fluoride toothpaste

* Questionnaire
Definition: Percentage of parents/guardians who respond “yes” to the question: “Does your child use fluoride toothpaste?”
Numerator: Number of parents/guardians responding “yes”
Denominator: Total number of parents/guardians responding to the question – survey responses “yes”, “no” or “don't know”
Type: Outcome measure

16. Diet

* Questionnaire
Definition: Percentage of parents/guardians who respond with answer "a" / "b" / "c" / "d" / "e" (or a combination) to the question: “How often does your child consume sugary foods and/or drinks between meals?”
Numerator: Number of parents/guardians responding a. "never" / b. "less than once a day" / c. "1-2 times a day” / d. "3-5 times a day” / e. "more than 5 times a day”
Denominator: Total number of parents/guardians responding to the question – survey responses: "never”, “less than once a day”, “1-2 times a day”, “3-5 times a day” or “more than 5 times a day”
Type: Outcome measure
Oral treatments

17. Fillings

* Questionnaire
Definition: Percentage of parents/guardians who respond “yes” to the question: “In the last 24 months, has your child had any new fillings?”
Numerator: Number of parents/guardians responding “yes”
Denominator: Total number of parents/guardians responding to the question – survey responses “yes”, “no” or “don’t know”

Claims
Definition: Percentage of children with fillings claimed per year
Numerator: Number of children with at least one filling claimed per year
Denominator: Total number of children with at least one service claimed per year
Type: Process measure

18. Root canal treatment

* Questionnaire
Definition: Percentage of parents/guardians who respond “yes” to the question: “In the last 24 months, has your child had any root canal treatment?”
Numerator: Number of parents/guardians responding “yes”
Denominator: Total number of parents/guardians responding to the question – survey responses “yes”, “no” or “don’t know”

Claims
Definition: Percentage of children with root canal treatment claimed per year
Numerator: Number of children with at least one root canal treatment claimed per year
Denominator: Total number of children with at least one service claimed per year
Type: Process measure

19. Retreatment

* Questionnaire
Definition: Percentage of parents/guardians who respond “yes” to the question: “In the last 24 months, did your child have any fillings, that had to be redone within 2 years of the original treatment?”
Numerator: Number of parents/guardians responding “yes”
Denominator: Total number of parents/guardians responding to the question (excluding adults responding “not applicable”) – survey responses “yes”, “no”, “don’t know” or “not applicable”
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Claims
Definition: Percentage of children with retreatment of a filling within 2 years of the original treatment
Numerator: Number of children with at least one filling claimed in a tooth that received the same treatment within the preceding 2 years
Denominator: Total number of children with at least one service claimed per year
Type: Process measure

20. Extraction

Questionnaire
Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, has your child had any teeth removed?”
Numerator: Number of parents/guardians responding “yes”
Denominator: Total number of parents/guardians responding to the question – survey responses “yes”, “no” or “don’t know”

Claims
Definition: Percentage of children with extractions claimed per year
Numerator: Number of children with at least one periodontal treatment claimed per year
Denominator: Total number of children with at least one service claimed per year
Type: Process measure

21. Aesthetic treatment (veneers, facings, whitening)

Questionnaire
Definition: Percentage of parents/guardians who respond “yes” to the question: “In the last 24 months, did your child have any treatment done purely to improve the appearance of his/her teeth (restorations in front teeth, teeth whitening, orthodontic treatment)?”
Numerator: Number of parents/guardians “yes”
Denominator: Total number of parents/guardians responding to the question – survey responses “yes”, “no” or “don’t know”

Claims
Definition: Percentage of children with aesthetic treatment claimed per year
Numerator: Number of children with at least one aesthetic treatment claimed per year
Denominator: Total number of children with at least one service claimed per year
Type: Process measure
22. Complications as a result of treatment

* Questionnaire

Definition: Percentage of parents/guardians who respond “yes” to the question: “In the last 24 months, did your child have any complications as a result of the treatment he/she received at the dentist?”

Numerator: Number of parents/guardians responding “yes”

Denominator: Total number of parents/guardians responding to the question (excluding adults responding “not applicable”) – survey responses “yes”, “no”, “don’t know” or “not applicable”

Type: Outcome measure

23. Antibiotics prescribing

* Questionnaire

Definition: Percentage of adults who respond “yes” to the question: “In the last 24 months, did your child received antibiotic treatment from his/her dentist?”

Numerator: Number of parents/guardians responding “yes”

Denominator: Total number of parents/guardians responding to the question – survey responses “yes”, “no” or “don’t know”

Type: Process measure

Oral prevention

24. Fissure sealants

* Questionnaire

Definition: Percentage of parents/guardians who respond “yes” to the question: “In the last 24 months, has your child had a protective layer put onto his/her teeth (sealant)?”

Numerator: Number of parents/guardians responding “yes”

Denominator: Total number of parents/guardians responding to the question – survey responses “yes”, “no” or “don’t know”

* Claims

Definition: Percentage of children with fissure sealants claimed per year

Numerator: Number of children with at least one fissure sealant claimed per year

Denominator: Total number of children with at least one service claimed per year

Type: Process measure
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25. Fluoride application

* Questionnaire
Definition: Percentage of parents/guardians who respond "yes" to the question: "In the last 24 months, has your child had a fluoride treatment put onto his/her teeth?"
Numerator: Number of adults responding "yes"
Denominator: Total number of parents/guardians responding to the question – survey responses "yes", "no" or "don't know"

* Claims
Definition: Percentage of children with fluoride application claimed per year
Numerator: Number of children with at least one fluoride application claimed per year
Denominator: Total number of children with at least one service claimed per year
Type: Process measure

26. Professional cleaning (clean and polish)

* Questionnaire
Definition: Percentage of parents/guardians who respond "yes" to the question: "In the last 24 months, has your child had a 'clean and polish' done?"
Numerator: Number of parents/guardians responding "yes"
Denominator: Total number of parents/guardians responding to the question – survey responses "yes", "no" or "don't know"

* Claims
Definition: Percentage of children with professional cleaning claimed per year
Numerator: Number of children with at least one professional cleaning service claimed per year
Denominator: Total number of children with at least one service claimed per year
Type: Process measure

27. Oral hygiene advice

* Questionnaire
Definition: Percentage of parents/guardians who respond "yes" to the question: "Does your dentist usually advise your child on how to clean their teeth and their general mouth care?"
Numerator: Number of parents/guardians responding "yes"
Denominator: Total number of parents/guardians responding to the question – survey responses "yes" or "no"
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- Claims
Definition: Percentage of children with dental health education claimed per year
Numerator: Number of children with at least one dental health education service claimed per year
Denominator: Total number of children with at least one service claimed per year
Type: Process measure

28. Dietary advice
- Questionnaire
Definition: Percentage of parents/guardians who respond “yes” to the question: “Does your dentist usually give your child advice on eating and drinking to prevent small holes and / or erosion?”
Numerator: Number of parents/guardians responding “yes”
Denominator: Total number of parents/guardians responding to the question – survey responses “yes” or “no”
Type: Process measure

29. Caries under surveillance
- Questionnaire
Definition: Percentage of parents/guardians who respond “yes” to the question: “In the last 24 months, has your dentist talked to you about a small hole in one or more of your child’s teeth which needs to be kept an eye on?”
Numerator: Number of parents/guardians responding “yes”
Denominator: Total number of parents/guardians responding to the question – survey responses “yes”, “no” or “don’t know”
Type: Process measure

Patient perception

30. Oral function (chewing, speaking, etc.)
- Questionnaire
Definition: Percentage of parents/guardians who respond “strongly agree” or “agree” to the question: “My child is satisfied with his/her ability to chew, eat and speak.”
Numerator: Number of parents/guardians responding “strongly agree” or “agree”
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Denominator: Total number of parents/guardians responding to the question – survey responses “strongly agree”, “agree”, “disagree” or “strongly disagree”
Type: Outcome measure

31. Appearance of teeth

* Questionnaire
Definition: Percentage of parents/guardians who respond “strongly agree” or “agree” to the question: “My child is satisfied with the appearance of his/her teeth.”
Numerator: Number of parents/guardians responding “strongly agree” or “agree”
Denominator: Total number of parents/guardians responding to the question – survey responses “strongly agree”, “agree”, “disagree” or “strongly disagree”
Type: Outcome measure

32. Dental anxiety

* Questionnaire
Definition: Percentage of parents/guardians who respond “strongly agree” or “agree” to the question: “Before visiting the dentist today, your child was anxious.”
Numerator: Number of parents/guardians responding “strongly agree” or “agree”
Denominator: Total number of parents/guardians responding to the question – survey responses “strongly agree”, “agree”, “neutral”, “disagree” or “strongly disagree”
Type: -

33. Shared decision making (active patient involvement in treatment planning)

* Questionnaire
Definition: Percentage of parents/guardians who respond with answer “a” / “b” / “c” / “d” (or a combination) to the question: “Does your dentist usually involve you in making decisions about your dental care or treatments concerning your child as much as you want to be?”
Denominator: Total number of parents/guardians responding to the question – survey responses: “always”, “sometimes”, “seldom” or “never”
Type: Process measure
34. Satisfaction with dental treatment/perception on dental care

   ◦ Questionnaire

Definition: Mean rating of parents/guardians to the question: “Overall, how would you rate the care provided to your child at this dental practice (‘1’ is very poor and ‘10’ is excellent)?”

Numerator: Sum of ratings of parents/guardians responding to the question

Denominator: Total number of parents/guardians responding to the question – survey responses: ‘1’ to ‘10’

Type: Outcome measure
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Appendix 5. O-statements, categorised according to themes and domains.

**Prevention - restoration domain**

**Appreciation of prevention**
- Prevention in dental practice does not make a big contribution to good oral health in patients.
- Restorative treatment for caries means that prevention has failed.
- Fillings are only appropriate if a patient’s oral hygiene is satisfactory.

**Responsibility for prevention**
- It is the dentist’s role to inform patients about healthy lifestyle.
- Advice about good oral hygiene is preferably provided by a dental hygienist.
- A healthy mouth can only be achieved with good oral health behaviours by the patient.
- Patients are responsible for their own oral health.

**Dentists’ own effectiveness with respect to prevention**
- With enough efforts, it is possible to establish a good preventive regime in almost every patient.
- Ongoing advice to improve oral hygiene is pointless if patients lack motivation.

**Barriers to prevention**
- Dentists could do more about prevention if they got paid more to do so.
- There is not enough time during appointments to inform patients about oral hygiene.
- Patients don’t want to pay for oral hygiene advice.

**Personalised prevention**
- A tailored prevention plan is needed for each patient.
- Sealants and fluoride applications are needed only in patients with a higher caries risk.

**Dentist satisfaction**
- A stabilised caries lesion is more satisfying than a nice filling.
- Guiding patients to better oral hygiene is satisfying.
- The technical aspects of the work, such as nice-looking restorations, are satisfying.

**Appreciation of restoration**
- A restoration saves a tooth for the time being.
- A restoration is the beginning of the end for that tooth.
- Dental care continues to improve because of technological advances.
- Dental tissue that is lost should be replaced as much as possible.
- Implants will play an increasingly important role in dental care.

**Monitoring**

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It is better to keep an eye on a cavity in the early stages rather than filling it immediately. Systematic record keeping is needed to monitor the progress of a care plan.

**Patient-based – disease-based domain**

**Personalised care**

The interval between periodical checks should be based on the individual patient’s oral health risk.

To make the delivery of good care possible, patients should preferably have a check-up every six months.

As a dentist, it is important to have the skills to support anxious patients.

**Information about patient status**

As a dentist, you need to build a good relationship with your patient.

The medical history of the patient must be known before a care plan is drawn up.

Good care also requires knowledge about a patient’s personal situation.

**Shared decision-making**

It is important to involve patients in choosing a treatment.

The wishes of the patient determine the care plan.

Dentists have the final responsibility and so they must remain in charge of decision-making about patient treatment.

As a dentist, you don’t want patients who only come in for emergency treatment.

A revised care plan has to be drawn up when a patient is unable to agree to a care plan for financial reasons.

All treatment options should be discussed with the patient.

During an appointment, there is not enough time to discuss all the treatment options with the patient.

**Duties of the dentist**

The dentist’s role is to maintain a patient’s dental function.

Aesthetics are an important aspect of dentistry.

The dentist’s role is to keep patients pain- and symptom-free.

Dental care is delivered by a team of (oral) healthcare providers.

**Patient satisfaction**

It is important that patients are satisfied with the care provided.

**Evidence-based – experience-based domain**

**Evidence**

As a dentist, you should only suggest treatments that are scientifically proven.

The current guidelines are not feasible in practice.
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There should be more guidelines for dentistry.

Training and continuous education

Lifelong training and education are important in terms of my ongoing development as a dentist.

As a dentist you can learn from colleagues.

Undergraduate teaching for dentists does not focus enough on prevention.

Expertise

It is better to refer patients to specialists for complex treatment.

The type of treatment selected is determined more by positive experiences than by scientific evidence.
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Appendix 6. The ADVOCATE online patient questionnaire (English).

For adults

Q1: Why did you visit the dentist today? (please tick as many boxes as necessary).
answers:
• New symptoms / unplanned treatment
• Planned check-up
• Planned treatment (for example a filling, extraction, root canal treatment, etc.)
• Planned preventative treatment (for example clean and polish; instructions for oral hygiene, etc.)
• Trauma / Emergency treatment

Q2: Before you visited the dentist today, did you have any of the following.......? (please tick as many boxes as necessary).
answers:
• Toothache or pain in the mouth
• Discomfort in the mouth
• Bleeding gums
• Dry mouth
• Bad taste
• Bad breath
• Problem with jaw, muscles or joints
• None of the above

Q3: Before I visited the dentist today, I was anxious.
answers:
• Strongly agree
• Agree
• Neutral
• Disagree
• Strongly disagree

Q4: How was your dental care paid for today?
answers:
• Completely by National Health Service (NHS)
• Partially by the NHS
• Completely by myself
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• Private insurance scheme
• Don’t know

Q5: How often do you usually come for a check-up at the dentist?
answers:
• Every 3 months
• Every 6 months
• Every 9 months
• Every 12 months
• Irregularly
• Never

Q6: In the last 24 months, have you had any difficulties getting an appointment with the dentist (for example, distance to dentist, dentist’s appointments full, or local dentists not accepting new patients)?
answers: [Yes, No]

Q7: How often do you usually brush your teeth?
answers:
• Irregularly
• Less than once a day
• Once a day
• Twice a day
• More than twice a day

Q8: Do you use fluoride toothpaste?
answers: [Yes, No, Don’t know]

Q9: How often do you use tooth picks, floss or interdental brushes?
answers:
• Never
• Sometimes
• Several times a month
• Several times a week
• Daily

Q10: Do you smoke tobacco?
answers:
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- Yes, I smoke
- No, but I have been a smoker in the past
- No, I have never been a smoker

Q11: How often do you drink alcohol?
answers:
- Never
- Once a month or less
- 2-4 times a month
- 2-3 times a week
- 4-5 times a week
- More than 5 times a week

Q12: How often do you consume sugary foods and/or drinks between meals?
answers:
- Never
- Less than once a day
- 1-2 times a day
- 3-5 times a day
- More than 5 times a day

Q13: I am satisfied with how I can chew, eat and speak.
answers:
- Strongly agree
- Agree
- Disagree
- Strongly disagree

Q14: I am satisfied with how my teeth look.
answers:
- Strongly agree
- Agree
- Disagree
- Strongly disagree

Q15: In the last 24 months, have you had a ‘clean and polish’ done?
answers: [Yes, No, Don’t know]
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Q16: In the last 24 months, have you received any treatment for gum disease?  
answers: [Yes, No, Don’t know]

Q17: In the last 24 months, have you had any X-rays taken by your dentist?  
answers: [Yes, No, Don’t know]

Q18: In the last 24 months, have you had any new fillings?  
answers: [Yes, No, Don’t know]

Q19: In the last 24 months, have you had any root canal treatment?  
answers: [Yes, No, Don’t know]

Q20: In the last 24 months, have you had a new crown or a bridge?  
answers: [Yes, No, Don’t know]

Q21: In the last 24 months, have you had any teeth removed?  
answers: [Yes, No, Don’t know]

Q22: In the last 24 months, have you had any dental implants placed?  
answers: [Yes, No, Don’t know]

Q23: In the last 24 months, have you had a partial removable denture (false teeth) made (this could be a first partial removable denture, or a repair or a renewal)?  
answers: [Yes, No, Don’t know]

Q24: In the last 24 months, have you had a full removable denture (false teeth) made (this could be a first removable denture, or a repair or a renewal)?  
answers: [Yes, No, Don’t know]

Q25: In the last 24 months, have you had a protective layer put onto your teeth (sealant)?  
answers: [Yes, No, Don’t know]

Q26: In the last 24 months, have you had a fluoride treatment put onto your teeth?  
answers: [Yes, No, Don’t know]
Q27: In the last 24 months, have you had treatment done purely to improve the appearance of your teeth (restorations in front teeth, teeth whitening, orthodontic treatment)?
answers: [Yes, No, Don't know]

Q28: In the last 24 months, have you received antibiotic treatment from your dentist?
answers: [Yes, No, Don't know]

Q29: In the last 24 months, have you had any complications as a result of the treatment you received at the dentist?
answers:
- Yes
- No
- Don't know
- Not applicable

Q30: In the last 24 months, have you had any fillings, root canal treatments, crowns or bridges that had to be redone within 2 years of the original treatment?
answers:
- Yes
- No
- Don't know
- Not applicable

Q31: In the last 24 months, has your dentist talked to you about a small hole in the tooth enamel which needs to be kept an eye on?
answers: [Yes, No, Don't know]

Q32: Does your dentist usually advise you on how to clean your teeth and general mouth care?
answers: [Yes, No]

Q33: Does your dentist usually give you advice on eating and drinking to prevent small holes and/or erosion?
answers: [Yes, No]

Q34: Does your dentist usually give you advice on the effects of smoking on your health?
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answers: [Yes, No, Not applicable]

Q35: Does your dentist usually have a conversation with you about current problems in your mouth and treatment preferences?
answers: [Yes, No]

Q36: Does your dentist ask you in every visit about your medical history and medicines you use?
answers: [Yes, No]

Q37: When it is appropriate, does your dentist usually ask you about your personal situation (for example, life events)?
answers: [Yes, No]

Q38: Does your dentist usually check for new holes in your teeth?
answers: [Yes, No, Don't know]

Q39: Does your dentist usually check for gum disease?
answers: [Yes, No, Don't know]

Q40: Does your dentist usually examine your neck and mouth for signs of rare diseases such as oral cancer?
answers: [Yes, No, Don't know]

Q41: Does your dentist usually involve you in making decisions about your dental care or treatments as much as you want to be?
Answers:
  • Always
  • Sometimes
  • Seldom
  • Never

Q42: Have you ever been sent by your dentist to a....? (please tick as many boxes as necessary)
answers:
  • Hygienist
  • Periodontist (problem with gums)
  • Root canal specialists
• Orthodontist
• Other
• None of the above

Q43: Have you ever decided not to proceed with a dental treatment purely due to cost?
answers: [Yes, No]

Q44: Have you ever decided not to proceed with a dental treatment for other reasons than cost?
answers: [Yes, No]

Q45: Overall, how would you rate the care provided at this dental practice (‘1’ is very poor and ‘10’ is excellent)?
answers: free text

Q46: Adults can have up to 32 natural teeth (that includes wisdom teeth), but over time people lose some of them. How many natural teeth have you got? … (count total number of teeth)?
answers: free text

Q47: How old are you?
answers: free text

Q48: What is your gender?
answers: [Male, Female]

Q49: What is your highest level of completed education?
answers:
  • No education
  • Primary education (elementary school / left school at age 11-14)
  • Secondary school (left school after age 14 without qualification)
  • Pre-vocational / vocational education (GCSEs, Standard Grade, GNVQ Foundation & Intermediate, NVQ levels 1 and 2)
  • Pre-vocational / vocational education (GCSE A/AS levels, Higher Grade, CSYS, GNVQ Advanced, NVQ Level 3)
  • Vocational qualification (qualification in higher education)
  • University (Bachelor, Master and doctoral degree)
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Q50: I found this questionnaire easy to understand.
answers:
  • Strongly agree
  • Agree
  • Neither agree, nor disagree
  • Disagree
  • Strongly disagree

Q51: I found the time it took to answer the questions reasonable:
answers:
  • Strongly agree
  • Agree
  • Neither agree, nor disagree
  • Disagree
  • Strongly disagree

Q52: Do you have any additional comments or suggestions?
answers: free text
Appendix 6. (continued). The ADVOCATE online patient questionnaire (English).

For children
Q1: Why did your child visit the dentist today? (please tick as many boxes as necessary)
answers:
- New symptoms / unplanned treatment
- Planned check-up
- Planned restorative treatment (e.g. filling, root canal treatment, etc.)
- Planned preventative treatment (e.g. clean and polish, fluoride application, oral hygiene advice, etc.)
- Trauma / emergency treatment

Q2: Before your child visited the dentist today, did your child have any of the following? (please tick as many boxes as necessary)
answers:
- Toothache or pain in the mouth
- Discomfort in the mouth
- Bleeding gums
- Problems with jaw, muscles or joints
- None of the above

Q3: Before visiting the dentist today, your child was anxious.
answers:
- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Q4: How was your child’s dental care paid for today?
answers:
- Completely by the National Health Service (NHS)
- Partially by the NHS
- Completely by myself
- Private insurance scheme
- Don’t know

Q5: How often does your child usually come for a check-up at the dentist?
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answers:

• Every 3 months
• Every 6 months
• Every 9 months
• Every 12 months
• Irregularly
• Never

Q6: In the last 24 months, have you had any difficulties getting an appointment with the dentist for your child (for example, distance to dentist, dentist’s appointments full, or local dentists not accepting new patients)?
answers: [Yes, No]

Q7: How often does your child usually brush his / her teeth?
answers:

• Irregularly
• Less than once a day
• Once a day
• Twice a day
• More than twice a day

Q8: Does your child use fluoride toothpaste?
answers: [Yes, No, Don’t know]

Q9: How often does your child consume sugary foods and/or drinks between meals?
answers:

• Never
• Less than once a day
• 1-2 times a day
• 3-5 times a day
• More than 5 times a day

Q10: My child is satisfied with his / her ability to chew, eat and speak:
answers:

• Strongly agree
• Agree
• Disagree
• Strongly disagree
Q11: My child is satisfied with the appearance of his / her teeth:
answers:
  • Strongly agree
  • Agree
  • Disagree
  • Strongly disagree

Q12: In the last 24 months, has your child had a protective layer put onto his/her teeth?
answers: [Yes, No, Don’t know]

Q13: In the last 24 months, has your child had a fluoride treatment put onto his / her teeth?
answers: [Yes, No, Don’t know]

Q14: In the last 24 months, has your child had a ‘clean and polish’ done?
answers: [Yes, No, Don’t know]

Q15: In the last 24 months, has your child had any x-rays taken by your dentist?
answers: [Yes, No, Don’t know]

Q16: In the last 24 months, has your child had any new fillings?
answers: [Yes, No, Don’t know]

Q17: In the last 24 months, has your child had any root canal treatment done?
answers: [Yes, No, Don’t know]

Q18: In the last 24 months, has your child had any teeth removed?
answers: [Yes, No, Don’t know]

Q19: In the last 24 months, did your child have any treatment done purely to improve the appearance of his/her teeth (restorations in front teeth, teeth whitening, orthodontic treatment)?
answers: [Yes, No, Don’t know]

Q20: In the last 24 months, did your child receive antibiotic treatment from your dentist?
answers: [Yes, No, Don’t know]
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Q21: In the last 24 months, did your child have any complications as a result of the treatment he/she received at the dentist?
answers:
  • Yes
  • No
  • Don’t know
  • Not applicable

Q22: In the last 24 months, did your child have any fillings that had to be redone within 2 years of the original treatment?
answers:
  • Yes
  • No
  • Don’t know
  • Not applicable

Q23: In the last 24 months, has your dentist talked to you about a small hole in one or more of your child’s teeth which needs to be kept an eye on?
answers: [Yes, No, Don’t know]
Q24: Does your dentist usually advise your child on how to clean their teeth and their general mouth care?
answers: [Yes, No]

Q25: Does your dentist usually give your child advice on eating and drinking to prevent small holes and / or erosions?
answers: [Yes, No]

Q26: Does your dentist usually have a conversation with you about current problems in your children’s mouth and treatment preferences?
answers: [Yes, No]

Q27: Does your dentist ask you in every visit about your child’s medical history and what medicines your child is using?
answers: [Yes, No]

Q28: When it’s appropriate, does your dentist usually ask you about your child’s personal situation (for example, life events)?
answers: [Yes, No]
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Q29: Does your dentist usually check your child’s teeth for new holes?  
answers: [Yes, No, Don’t know]

Q30: Does your dentist usually involve you in making decisions about your dental care or treatments concerning your child as much as you want to be?  
answers:  
• Always  
• Sometimes  
• Seldom  
• Never

Q31: Has your child ever been sent by your dentist to a…..? (please tick as many boxes as necessary)  
answers:  
• Hygienists  
• Paediatric dentist  
• Orthodontist  
• Other  
• None of the above

Q32: Have you ever decided not to proceed with a dental treatment for your child purely due to cost?  
answers: [Yes, No]

Q33: Have you ever decided not to proceed with a dental treatment for your child for other reasons than cost?  
answers: [Yes, No]

Q34: Overall, how would you rate the care provided to your child at this dental practice (‘1’ is very poor and ‘10’ is excellent)?

Q35: How old is your child?  
answer: free text

Q36: What is your child’s gender?  
answers: [Male, Female]

Q37: What is your highest level of completed education of the child’s mother?  
answers:
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- No education
- Primary education (elementary school / left school at age 11-14)
- Secondary school (left school after age 14 without qualification)
- Pre-vocational / vocational education (GCSEs, Standard Grade, GNVQ Foundation & Intermediate, NVQ levels 1 and 2)
- Pre-vocational / vocational education (GCSE A/AS levels, Higher Grade, CSYS, GNVQ Advanced, NVQ Level 3)
- Vocational qualification (qualification in higher education)
- University (Bachelor, Master and doctoral degree)

Q38: I found this questionnaire easy to understand.
answers:
- Strongly agree
- Agree
- Neither agree, nor disagree
- Disagree
- Strongly disagree

Q39: I found the time it took to answer the questions reasonable.
answers:
- Strongly agree
- Agree
- Neither agree, nor disagree
- Disagree
- Strongly disagree

Q40: Do you have any additional comments or suggestions?
answers: free text
Appendices

Appendix 7. The ADVOCATE dashboard.

**Figure 1.** Patient application questionnaire information visualised in the ADVOCATE dashboard.

**Figure 2.** Patient application questionnaire information visualised in the ADVOCATE dashboard.
Appendices

Figure 3. Patient application questionnaire information visualised in the ADVOCATE dashboard.
Appendix 8. Focus group interview guide.

Prior to the interview

• Read interview guide
• Paper/pen if you would like to take notes

During the interview

• Introduce yourself and explain the purpose of the interview
• If preferred: Explain that you will be taking notes during the interview to assist you in remembering their responses.
• Ask the group if anyone has participated in a focus group discussion before. Explain the process of a group discussion.
• Ground Rules: Ask the group to suggest some ground rules, including
  o Everyone is encouraged to participate.
  o Information provided in the focus group interview must be kept confidential
  o We learn from each other (positive and negative)
  o There are no right or wrong answers
  o Stay with the group and please don’t have side conversations
  o Turn off cell phones
• Ask for consent to record the conversation
• Explain that the conversation will be translated and anonymised so the ADVOCATE team can analyse the results.
• Make sure that the following points have been discussed during the interview:
  o see table below
• Keep track of the time.

After the interview has concluded

• Thank the participants for their participation in the interview.
Appendices

Topics and questions for group discussion

<table>
<thead>
<tr>
<th>Topics</th>
<th>Example questions</th>
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<tr>
<td>Feasibility of the Field Studies</td>
<td>How did you experience the group meetings? What was good and what could have been better?</td>
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<tr>
<td>Perceived acceptability of the Field Studies</td>
<td>What are your experiences with collecting the feedback data with the app in your dental practice? What went well and what could have been better?</td>
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<tr>
<td>Perceived usefulness of the Field Studies</td>
<td>What did you think of the usefulness of the feedback data in the group discussions? Were the patient derived data or claims data more informative?</td>
</tr>
<tr>
<td></td>
<td>What did you think of the usefulness of the Dashboard? Do you have any recommendations for improvement?</td>
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<tr>
<td></td>
<td>How did the Field Studies influence your dental practice?</td>
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<td></td>
<td>What action points did you identify?</td>
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<tr>
<td></td>
<td>Is there anything you are thinking about / going to do differently?</td>
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</table>

Evaluation form set-up meeting

Date: _____________

Instructions: Please indicate your level of agreement with the statements listed below in.

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<tr>
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<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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</thead>
<tbody>
<tr>
<td>1. The objectives of the Field Studies were clearly defined.</td>
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<tr>
<td>2. It is clear to me what my role is in the Field Studies</td>
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<tr>
<td>3. I feel comfortable participating in the Field Studies</td>
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<td>4. Participation and interaction were encouraged</td>
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<tr>
<td>5. The moderator was well prepared</td>
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</tr>
<tr>
<td>6. The meeting was well organised</td>
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<tr>
<td>7. The time allotted for the group meeting was sufficient</td>
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</tr>
<tr>
<td>8. The meeting room and facilities were adequate and comfortable</td>
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<tr>
<td>9. I feel comfortable collecting data within my practice with the patient app</td>
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<tr>
<td>10. I expect that the group meeting experience will be useful in my work</td>
<td>o</td>
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</tr>
</tbody>
</table>

12. What went well during this meeting? __________________________________________________________

13. What could have been better for this meeting? _________________________________________________

14. What are your expectations from participating the Field studies? _________________________________

15. Write in two or three sentences what you consider the objectives of the Field Studies are? _________


Evaluation form Meeting 1 and Meeting 2

Date: _____________
Instructions: Please indicate your level of agreement with the statements listed below in.

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<tr>
<td>3. The selected measures that were discussed during the meeting were relevant to me.</td>
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<tr>
<td>4. I felt comfortable discussing the measures during the meeting.</td>
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<tr>
<td>5. The moderator was well prepared.</td>
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<td>6. The meeting was well organised.</td>
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<tr>
<td>7. The Dashboard was helpful in preparing the meeting</td>
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<tr>
<td>8. The Dashboard was a helpful tool during the meeting.</td>
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<tr>
<td>9. The time allotted for the group meeting was sufficient.</td>
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<tr>
<td>10. The meeting room and facilities were adequate and comfortable</td>
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<tr>
<td>11. This group meeting experience will be useful in my work.</td>
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</tbody>
</table>

12. What went well during this meeting?

13. What could have been better for this meeting?

14. What are your goals for the next meeting?

15. Is there anything you are thinking about to do differently?

Evaluation form Meeting 3

Date: _____________

Instructions: Please indicate your level of agreement with the statements listed below in.

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<td>2. Participation and interaction were encouraged.</td>
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<td>4. I felt comfortable discussing the measures during the meeting.</td>
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<td>5. The moderator was well prepared.</td>
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<td>6. The meeting was well organised.</td>
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<td>7. The Dashboard was helpful in preparing the meeting</td>
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<td>10. The meeting room and facilities were adequate and comfortable</td>
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<td>12. What went well during this meeting?</td>
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<td>13. What could have been better for this meeting?</td>
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<td>14. What did you learn from participating in the Field studies?</td>
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<tr>
<td>15. What did you change in your dental practice due to participation in the Field studies?</td>
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</tbody>
</table>
Appendices

16. Is there anything you are thinking about to do differently in your dental practice due to the Field studies?

17. What could have been better about the Field studies?
Appendix 10. Field notes for Stewards.

Which measures did you prepare to be discussed?

Which measures were discussed during the meeting?

Were there any measures that you planned to discuss but did not? Please explain why.

Were there any unplanned discussion topics? Please explain why.

What agreements and tasks were made during the meeting?
Appendices

**Appendix 11.** Structured debriefing interview guide for Stewards.

How are you?

Tell us how meeting 1 went. How many GDPs attended? How long did the meeting take? (too long? Too short/ what was planned?)

What went well during the meeting?

What could have been better?

Which measures did you prepare to be discussed during the meeting?

Which measures were discussed during the meeting?

If there were any measure you planned to discuss but did not what was the reason?

Were there any measure you did not prepare but were discussed?

Which goals did you set-up with the group during the meeting?

Did you discuss the validity and usefulness of the data with your group? How many patients are seen to be minimally required for them to be relevant?

Did preparation for meeting 1go as planned?

Did you have any difficulties in arranging the meeting? If so, what were these difficulties?
Appendices

How did the GDPs experience the data collection in their practice?

What went well during data collection?

What could have been better during data collection?

If there were GDPs that needed encouragement how did you do this?

How often did you get in touch with the GDPs?

Have you made arrangements for meeting 2? Do they continue data collection?
Appendices

Appendix 12. Demographic questionnaire for Stewards and GDPs.

1. What is your age?

2. What is your gender?
   - Male
   - Female

3. What is your profession? (please tick multiple answers if necessary).
   - General dental practitioner (please continue to question 5)
   - Dental hygienist (please continue to question 5)
   - Dental specialist

4. What is your specialisation?
   - Endodontic dentistry
   - Periodontic dentistry
   - Paediatric dentistry
   - Implant dentistry
   - Orthodontics
   - Gnathology
   - Maxillofacial surgery
   - Dental care for patients with special needs (elderly, disabled patients, anxious patients, etc.)
   - Other

5. Do you work in a..? (please tick multiple answers if necessary)
   - Group practice
   - Solo practice (please continue to question 7)

6. How many colleague dentists are working in the group practice?

7. Do you structurally work together with a dental hygienist?
   - Yes, with a dental hygienist who is working in the same practice
   - Yes, with a dental hygienist who is working in another practice
   - No

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8. Do you structurally work together with a preventive assistant?
   o Yes, with a preventive assistant who is working in the same practice
   o No

9. In what city or village do you currently practice dentistry?
   -------------------------------

10. When compared with other local dental practices, do you think your practice has:
    Paediatric patients: A larger proportion/ A smaller proportion/ About the same
    Adult patients: A larger proportion/ A smaller proportion/ About the same
    Elderly patients: A larger proportion/ A smaller proportion/ About the same

11. How many years ago did you get your dental degree?
    o 1-9 years
    o 10-19 years
    o 20-29 years
    o 30-39 years
    o More than 40 years

12. How many days per week do you work in a dental practice?
    o 1 day
    o 2 days
    o 3 days
    o 4 days
    o 5 days
    o 6 days

13. What is your e-mail address? (e-mail address will ONLY be used to provide you with login details to access your own personal feedback information and results from the Field Studies.)
    --------------------------------------------------------------------------
Appendices

Appendix 13. Results focus groups proof-of-principle study.

The findings from the themes are presented below and quotes corresponding to each theme are shown in Appendix Table 1. When possible, results relating to Steward or GDP views are presented separately.

Theme 1. Recruitment of GDPs

In accordance with the proof-of-concept results, Stewards in the proof-of-principle study had different experiences with recruitment of GDPs - some found it easy and some found it challenging (Quote 1.1). Barriers for recruitment mentioned which were in agreement with the proof-of-concept results were time constraints and service pressures for example contractual targets or short-term staff shortages (Quotes 1.2 & 1.3) and difficulties for some Stewards in communicating succinctly the aims and processes of the project (Quote 1.4).

Findings additional to the proof-of-concept findings were that participating GDPs were positive about the recruitment and regarded the process as acceptable (Quote 1.5). Factors mentioned as having influenced participation were the idea of helping someone within your personal network (Quote 1.6), having interest in research (Quote 1.7), responding to social media advertisement, participation being regarded as a potential motivator for staff, and a snowballing effect (Quotes 1.8 & 1.9).

Theme 2. Contact with GDPs

The communication between the GDPs and the Stewards was primarily by email (Quote 2.1). One Steward used a WhatsApp group (Quote 2.2). Personal meetings were arranged if needed, and sometimes this was necessary to manage logistic snags such as distributing the tablets (Quote 2.3). At some set-up meetings, academic associates were present, which Stewards and GDPs found helpful (Quote 2.4).

The frequency of contacts between Stewards and GDPs outside the ADG meetings varied, with a spectrum from “daily” and “very often” (Quotes 2.5 to 2.7) to “monthly” and “a few times” (Quotes 2.8 & 2.9). Problem solving with the tablets (Quotes 2.6 & 2.7) and arranging of meetings (Quote 2.10) stimulated more frequent contacts. The findings related to this theme were very much similar to the proof-of-concept findings.
Theme 3. ADG Meetings

GDPS’ view on ADG meetings
In general and in agreement with the proof-of-concept results, GDPS were very positive about the ADG meetings. The majority of participating GDPS referred to the meetings in positive terms appreciating both the positive, open and safe atmosphere, the level of engagement of and interaction with colleagues, the interesting and relevant discussions and getting feedback about their own dental practice (Quotes 3.1 to 3.4).

When asked for suggestions for improvements of the ADG meetings, the majority of GDPS either did not list any suggestions for improvements or reiterated that they were satisfied and happy with the meetings as they were (Quote 3.5). Descriptive analysis of the post-meeting evaluation forms also supports a general satisfaction with the ADG meetings, see appendix Table 2. As was seen in the proof-of-concept study, the main negative aspect around the ADG meetings, was attendance of other GDPS. As one GDP described it, the discussions became less interesting if some members of the group were unable to attend (Quote 3.6). One GDP wished for more clear goal setting at the beginning of the meeting (Quote 3.7) and another expressed having been anxious about having to see and show one’s own data (Quote 3.8). A few experienced some degree of information overload (Quote 3.9), and finally not all were satisfied with the meeting facilities e.g. parking options (Quotes 3.10 & 3.11).

In contrast with the proof-of-concept findings, the role of the Steward was not a strong feature of discussions by the GDPS. However, some did note the moderating role of the Steward to be necessary and important for a productive ADG meeting (Quotes 3.12 to 3.14) which is in agreement with the proof-of-concept findings. GDPS had no negative things to say about the role of the Steward.

The Stewards’ view on the ADG meetings
The majority of Stewards felt that the ADG meetings went well (Quote 3.15); one Steward had a meeting for which it was difficult to stimulate discussions due to a lack of data (Quote 3.16). Most Stewards did not have difficulties in arranging and planning meetings (Quote 3.17). However, a few reported that the planning took longer than anticipated and it was difficult to find time to prepare as much as they would have liked to (Quotes 3.18 & 3.19). A total of 33 ADG meetings were completed (Figure 4). Reported meeting length ranged between 0.5 hours to 4 hours, with the majority of
meetings lasting for about 1.5 to 2 hours (Quotes 3.15 & 3.19). Most Stewards felt they had sufficient time to discuss the key points they had planned (Quotes 3.15 & 3.20).

Stewards found the GDPs were engaged and willing to discuss openly in a positive tone (Quotes 3.21 to 3.23); there were long lists of topics that Stewards reported were discussed at meetings which they had not prepared indicating open, free-wheeling discussions about many aspects of clinical practice. Stewards felt the training had prepared them well for their role (Quotes 3.17 & 3.24). Training had prepared Stewards for handling potential conflicts during ADG meetings and how to go about less open and tolerant participants in ADG meetings. However, no Stewards or GDPs reported having experienced any unpleasant or controversial disputes between participants (Quote 3.25). One Steward reported having had a group of GDPs who collectively turned non-compliant to the study protocol and the Steward was under-prepared to handle such a situation (Quote 3.26).

Despite a problem with participant compliance with the project protocol in one out of 11 ADGs and additional minor challenges for ADGs with little data to base discussions on, overall Stewards reported ADG meetings to be as expected or even better than expected, in accordance with the proof-of-concept findings.

Theme 4. Patient feedback questionnaire

Content of the questionnaire
The GDPs’ views on the patient engagement app were mixed across a wide range of issues. They were concerned about the number of questions (Quotes 4.1 & 4.2) and had some concerns about the content of the questionnaire, in the sense that they did not always agree to the relevance of certain questions and they viewed some questions as being unclear and difficult for patients to understand (Quotes 4.2 to 4.4). Specifically, whether patients are capable of answering how many teeth they have was raised as a concern (Quote 4.5) despite research indicating this was a reasonable approach, and uncertainty was expressed whether patients understood correctly the question guiding them to the child or adult questionnaire (Quote 4.6).

Although there were some positive points made about the questionnaire on the tablet being straightforward and easy to use, and its use giving the project a professional feel (Quotes 4.7 & 4.8), the above negative views of GDPs’ on the questionnaire and patient engagement app meant that some GDPs were unwilling to burden some of their patients with the questionnaire (Quote 4.1). The generally positive attitude
towards the ADG meeting which was informed and stimulated by data collected from patients, contrasted with the GDPs’ negative opinions of the app required to collect the subsequently useful and informative data.

Similar to the proof-of-concept findings, patient reports about the questionnaire were contradictory to the negative views from some GDPs. Furthermore, the idea held by some GDPs that patients were unwilling to fill in the questionnaire and the GDPs therefore sometimes might not ask them to do so, is in contrast to the data that by the end of the Field Studies, 6,873 adult patient questionnaires and 561 child questionnaires were collected.

**Application for online data collection**

Technical problems such as login difficulties and WiFi connection problems were mentioned as barriers to data collection (Quotes 4.9 to 4.13). GDPs also reported that they viewed patients as being heterogeneous in their IT skills; a GDP raised concerns that this may have led to selecting which patients to ask to fill in the questionnaire (Quotes 4.14 & 4.15). Fitting data collection into a busy, established schedule in the dental clinic, and as a consequence putting extra strain on busy practice staff, was also mentioned as a barrier to data collection (Quotes 4.11 & 4.16 to 4.18). Many of the technical issues raised by the GDPs turned out to be readily solved, by for instance purchase of SIM cards, by support from the ADVOCATE IT partner Aridhia, or help from the Stewards (Quotes 4.19 to 4.21), and there was positive data about the app and data collection going well (Quotes 4.22 to 4.24). As a whole, however, negative views from GDPs about data collection generally outweighed positive views.

The findings of mixed and predominantly negative attitudes towards the content and length of the patient questionnaire and the data collection procedure were in agreement with the proof-of-concept findings.

**Theme 5. Dashboard**

**Ease-of-use**

Despite training, some Stewards did not find the Dashboard intuitive, and struggled to get to grips with using it “live” in meetings to support discussion of topics, especially as the discussions shifted from topic to topic (Quotes 5.1 to 5.3). Some Stewards resolved this by copy-pasting graphical representations of data from the dashboard into PowerPoint presentations (Quotes 5.3 & 5.4). Other Stewards though did use the Dashboard “live” in the ADG meetings and did not report problems; one found this
Appendices

Facility very useful (Quote 5.5). A large proportion of the GDPs did not try to access the Dashboard (Quote 5.6); some GDPs tried to access it but found the login procedure too difficult or time consuming (Quotes 5.7 & 5.8).

Content

GDPs were very interested in seeing the patient-reported data in the dashboard as long as Stewards did the work of accessing and presenting the data (Quotes 5.9 to 5.10). The GDPs found the results surprising and felt that seeing the data motivated them to collect more data (Quotes 5.11 to 5.15). Several GDPs noted that the data was based on selected patient groups (Quotes 4.17 & 4.18 & 5.16), presumably expressing their concerns whether data can be viewed as representative of the whole of their practice, but only a minority mentioned this (Quote 5.17). Stewards felt that the data stimulated discussions despite the accepted lack of representativeness, which was acknowledged by the research team throughout the Field Studies and in the training of the Stewards (Quotes 5.18 to 5.20). The number of topics and range of different topics discussed support that the AD approach supported with feedback data did prompt and stimulate valuable discussions. Oral cancer screening, patient satisfaction and validity of data were topics that many Stewards reported to have discussed with the GDPs.

The findings that GDPs in general did not prioritise to use the dashboard themselves but appreciated the content of the dashboard were very similar to the results in the proof-of-concept study. However, the findings of mixed experiences from the Steward’s point of view were additional to the proof-of-concept findings.

Theme 6. Overall opinion of the Field Studies

GDPs were positive about the theoretical basis and the overall approach of the Field Studies (Quotes 6.1 to 6.4), despite having some criticisms of the practical and technical parts of the project (See themes 4 & 5). Specifically, GDPs found it to be inspiring to interact with colleagues, and to be able to share experiences and to get feedback on their practice (Quotes 6.5 to 6.7). Others specifically valued the patient involvement and perspective, and felt that patients appreciated to be asked and involved (Quotes 6.6; 6.8 & 6.9). Others found the inter-country interaction comparisons interesting and useful (Quotes 6.10 & 6.11).

GDPs were critical about aspects of the project which they found difficult to accommodate into their busy schedules (Quotes 4.11 & 4.16 to 4.17). Technical or
logistic problems, such as delayed tablet deliveries, interactions about the dashboard, and data collection were seen as problematic, and this seemed to affect their overall view of the Field Studies (Quotes 6.12 to 6.15). Although often such problems were eventually solved (Quotes 6.16 & 6.17), for some participating GDPs such difficulties may have detracted from the overall positive attributes of the Field Studies (Quotes 6.18 to 6.19) Other GDPs reflected the positive, relevant and interesting discussions in which they played a part. (Theme 3: quotes 3.1 to 3.5).

The findings that GDPs in general held positive attitudes towards the main idea of the Field Studies and found it a useful way to gain insights into patient experiences and to interact with colleagues, but on the other hand were critical about certain practical and design related issues, were in agreement with the proof-of-concept findings.

**Theme 7. Perceived results**

GDPs found the discussions in the ADG meetings interesting, relevant and stimulating (Theme 3 and quotes 5.11 & 7.1 to 7.2). Furthermore, GDPs stated that surprising results from the patient questionnaire and following discussions led them to reflect on provided dental care (Quotes 5.12 to 5.13 and 7.1 to 7.9). In addition, GDPs realised that their own view on dental care did not necessarily correspond with their patients’ views (Quotes 7.6 to 7.10); this led to GDPs realising that an increased focus on communication is necessary (Quotes 7.8 to 7.11). Discussing with peers helped GDPs to both realise that there are different approaches to dental care and to consider whether and how to change their own approaches (Quotes 7.2 & 7.6 & 7.11). Additionally, there was increased appreciation of hearing out the patients and increased recognition of patient expectations of being involved in decision making (Quotes 6.8 and 7.12 to 7.16). Some GDPs reported to have already changed their way of delivering care after having participated in the Field Studies, specifically in relation to communication (Quotes 7.12 to 7.16) and in relation to prevention (use of fluoride) (Quote 7.17). In addition others had intentions to change their approach to care delivery regarding communication, patient involvement and prevention (Quotes 7.18 to 7.21). Some GDPs expressed willingness to change but at the same time frustration around apparent lack of patient understanding and contractual incentives for changing care delivery (Quotes 7.22 & 7.23). A few did not have intentions to change their care delivery either due to not seeing a need or not feeling that the Field Studies provided them with reason solid enough to change their approach (Quotes 7.24 & 7.25).
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Some GDPs seemed to have misunderstood the questions around action points and answered in ways indicating that they thought action points related to things they would do differently within the Field Studies (Quotes 7.26 to 7.28) rather than changes they would make in their own practice.

The findings in the proof-of-concept study that the Fields Studies approach did stimulate reflection on delivered care and especially made GDPs acknowledge a need for more and better communication with patients was replicated in the proof-of-principle study, as were GDP reports of intentions to change their way of delivering oral healthcare. In both the proof-of-concept and proof-of-principle studies some GDPs reported to have already changed their care delivery with regards to communication, while changes to care delivery regarding prevention was reported in the proof-of-principle study only.
Appendix 13. (continued). Results focus groups proof-of-principle study.

Table 1. Theme’s and quotes from focus groups of the proof-of-concept study

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<th>Quote</th>
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<tr>
<td>Recruitment</td>
<td></td>
<td>1. nSteward: “Recruitment has been challenging”</td>
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<td></td>
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<td>2. Steward: “Contractual obligations – NHS dentists face pressure to reach contractual targets.”</td>
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<td>3. Steward: “Some practices unsuitable due to local internal issues (staff shortage), which may just be temporary”</td>
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<td></td>
<td></td>
<td>4. GDPs: “Didn’t understand the aim during the recruitment period”</td>
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<td>5. GDP: “Acceptable as was”</td>
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<td>6. GDP: “...and I know [person] who basically said can you help me.”</td>
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<td>7. GDP: “...and because of my background already interested in research”</td>
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<td></td>
<td></td>
<td>8. GDP: “I found a post on a dentist Facebook group. And contacted [person] through that. The reason I contacted him was actually because I could see or I hoped that it would enhance and I could get my employees to go. So that it could enhance our yeah very self-centred but our own office work scheme. And then I actually helped him. So, I actually think I found like 5 participants for him.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. Steward: “The participating GDP was also keen to assist with the recruitment process”</td>
</tr>
<tr>
<td>Contact with GDPs</td>
<td>1</td>
<td>Steward: “Primarily contact by email. In general good feedback”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Steward: “Have created a WhatsApp group, to stay in contact with each other and create a forum for supporting each other”</td>
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<td></td>
<td></td>
<td>3. Steward: “Plan to visit them in their practice”</td>
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<td></td>
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<td>4. Steward: “Really helpful having two ADVOCATE team members at the Set-up meeting. The ease of use of the app (Patient-Engagement App) provided reassurance”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Steward: “very often”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Steward: “There was a lot of email exchange. Colleagues struggled with data-collection”</td>
</tr>
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<td></td>
<td></td>
<td>7. Steward: “Weekly, daily if necessary because of the technical problems”</td>
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<td></td>
<td></td>
<td>8. Steward: “An email once a month following the upload of data to the dashboard”</td>
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<tr>
<td></td>
<td></td>
<td>9. Steward: “Not often, a couple of emails.”</td>
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<td></td>
<td></td>
<td>10. Steward: “4 times in advance of the Set-up meeting, 2 of these were due to the re-scheduled meeting”</td>
</tr>
<tr>
<td>ADG Meetings</td>
<td>1</td>
<td>GDP: “Very good, not many opportunities to talk with colleagues”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. GDP: “It is always interesting to take part in studies and to exchange ideas with colleagues.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. GDP: “We had a very stimulating discussion about different patient problems. It is interesting to see how colleagues go about their work”</td>
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<td></td>
<td></td>
<td>4. GDP: “Safe and relaxed atmosphere”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. “What could have been better?” – GDP: “Nothing, it was great”</td>
</tr>
</tbody>
</table>
6. GDP: “A chunk of cancellations from other participants lead the discussion to be a bit one-sided”
7. “What could have been better?” – GDP: “Maybe a better description of the aims of the meetings up front”
8. GDP: “I think at the first meeting you’d think you know get very nervous. But then when you look at the data comparing to see if it was actually right.”
9. “What could have been better?” – GDP: “There was not enough time to look at the many different indicators. All in all, there was far too much information.”
10. Steward: “Had to meet in a dental clinic, room was a bit small”
11. GDP: “Parking should be free”
12. GDP: “I think the group worked very well because our Steward was very good at like making us aware of what’s going on in the dental college”
13. GDP: “...and I don’t think the meetings for us would have been as good if it hadn’t been Stewarded by a scientist.”
14. GDPs: “Nice with a moderator that can actually lead and moderate”
15. Steward: “All 6 GDPs attended. The meeting went very well and lasted 1hr 45 mins which didn’t appear to be too long or too short”
16. Steward: “The meeting did not go that well as the GDPs did not have any data collected and was difficult to bring up discussions relating to the Dashboard”
17. Question: “Did preparation for the meeting go as planned?” Steward answer: “Yes, the resources provided at Steward Training in Amsterdam were very useful in preparing for the meeting. However, more preparation was required than initially thought”
18. Question: “Do you have any concerns about the wider project?” Steward answer: “No. Apart from difficulties finding the time to prepare”.
19. Steward: “Meeting went on for four hours although two hours planned, due to good discussion both about planned topics and some outside the agenda”
20. Steward: “Our meetings were too short”
21. Steward: “Engagement was very good after a slow start and initial reservations about the project from some dentists”
22. Steward: “I felt it took a while to stimulate conversation. Once the GDP’s started to talk and discuss the data, it was very easy for me to just facilitate discussion. We had lively debate on most topics that I had prepared. My group decided themselves that they wanted to disclose who was who in the data”
23. Steward: “…they were able to share ideas and experiences. Yeah, and I think they all listened to each other really well. Um, you know, they were interested in learning from each other”
24. Steward: “Amsterdam training sessions very valuable”
25. Steward: “Yeah. So, it was useful but it was a little bit more as if, let’s say, the mock meetings that we have were the extreme, so how it could go perfectly or entirely wrong, but all that’s in the middle was not really clear. Possibly, I think the only thing was it was really useful to watch other people doing facilitating. I felt I learnt a lot from that.”
26. Steward: “I had a group of GDPs which already knew each other. What happened was that at the start of the first meeting one of the GDPs expressed his/her doubts about the questionnaire (too long/not relevant questions) and not feeling safe having the iPads in the waiting room. All other GDPs simply agreed. Quickly they all decided to not collect data. Before they had even tried. Probably if they would not have known each other well they would not have made such a decision so quickly. As a Steward I was not prepared for this to happen. The training did not prepare me for such a situation.”

### Patient questionnaire application

1. Steward: “felt that new patients already had to fill out a medical history form and having to do the questionnaire also would be too much”
2. GDP: “The questionnaire should be shorter and more precise”
3. Steward on behalf of group of GDPs: “They don’t understand the usefulness of a few questions, e.g. Q 46 Q 5. Two GDP’s believe that these questions are embarrassing because the answers are in the patient file”
4. GDP: “Questions are demanding – 24 months is a difficult concept; patients can’t remember in detail. Patients unsure what the question means. Questions are ambiguous – why does the improving appearance one only includes white fillings in front teeth? Patients might not recognise protective layer as sealants. They might include fluoride varnish here too.”
5. GDP: “Also the question about the number of teeth almost always came back to the dentist to provide the answer that is, the patient did not know.”
6. Steward: “Some expressed concern at asking children to complete the questionnaire particularly if the child completed it on their own behalf as the data then appears in the ‘Adult’ tab on the dashboard. This confused the GDPs”
7. Steward: “One of the good things is that the questionnaire in the app was actually quite simple to use. It wasn’t difficult. The questionnaire is quite straightforward. Patients generally speaking tended to find that they were, you know, it wasn’t taking too long to do. And with questionnaires it can be quite long. It was actually relatively straightforward to do”
8. GDP: “iPad gave a modern authentic feel about the study”
9. GDP: “It was just the logging on and that’s. I would say, my own experience or lack of experience or trying to do it by the book, but the original login for the iPad, explaining to them around the security, that was necessary. But the steps that’s actually involved for them [staff] to hand over the iPad to the patient to ask them to complete it. That caused a problem in the beginning.”
10. GDP: “Initially I had a problem with the password. That was like gx12 and symbols. That was really time consuming. So initially I really did a few. During my second meeting some other tablet was an Apple one, I use Microsoft so I wasn’t used to it. And it was the second meeting where I was told that you’ve got the autofill.”
11. GDP: “Practice staff do not always have time to assist patients in completing the questionnaire. The online questionnaire crashes regularly”
12. GDP: “We were unable to transmit any data from our practice. The ability to gather data should not depend on having access to the Internet.”
13. GDP: “It was difficult. had to use phones to create WiFi”
14. GDP consensus: “The app itself was uncomplicated. but for people not used to tablets it was quite a challenge. This meant that GDPs often selected people who they expected would be able to fill in the questionnaire without too much trouble”
Appendices

15. GDP consensus: “They felt there was a bias towards a patient who would complete a questionnaire on an iPad. Some patients would have preferred paper questionnaires”

16. Steward: “Some dentists asked their staff not to give the questionnaire to the first patient of the day as they felt it then impacted the flow for the whole day”

17. Steward: “Some dentists felt that collection of the data disrupted the efficiency of the practice”

18. GDP: “It was difficult to find the time required for the study during my busy work schedule. My experience of AnalytiX [Patient-App] is that it is too complex. This is more something for younger people who have a better understanding of technology.”

19. Steward: “Turned out that the dashboard did not work in all browsers, it only worked in google chrome. I contacted Aridhia because I could not access the dashboard. They asked which browser I used. It was then that they told me that I should use google chrome. This was not communicated to us. If this simply would have been communicated to us this would not be a problem.”

20. GDP: “There was an initial issue with the length of the password and the need to re-enter it each time a questionnaire was completed. However once this issue was sorted, everyone agreed that the process became easier”

21. Steward: “...contacted Aridhia and organised a work around the login of the app. They have simplified the passwords, by using a sequence of only numbers. Initially it was a password that you could not remember or fill in easily. Also, the time in which the password had to be filled in again was adjusted. Now they have more time before the app says the password has to be filled in again.”

22. GDP: “So I think in terms of the app, I think the app worked really well. You know it was practically impossible to go wrong with the app the way it was designed you know straight through”

23. GDP: “I think the app works really well. And it worked quickly and actually it’s a receptionist in the dentist’s practice generally who are using this. And they found it really no problem.”

24. Steward: “In general data collection for period 2 went well. No issues reported with the app or data capture”

5 Dashboard

1. Steward: “Yeah, it wasn’t intuitive”

2. Steward: “…that means I have to go back out and do this and do this, and that was quite time consuming.”

3. Steward: ““Oh my god,” it was quite stressful making sure you could log in and remember what to do because actually, the other thing was that, and I think we said this as well, is that when you logged in it wasn’t easy to work out what to do. I find it really difficult. I prepared a PowerPoint of the data from my GDP group.”

4. Steward: “I printed them off, stretched the graph actually put the whole lot up on the screen, I took them off the dashboard as PowerPoint”

5. Steward: “Dashboard functioned well. Had good demonstration with actual real data”

6. Steward: “No GDPs in my group had tried to access the Dashboard”

7. GDPs: “Dashboard was too difficult to get a password, so just skipped it”

8. GDP: “Did not access due to password issues. Too time consuming.”

9. Steward: “But the dashboard then they looked at it in the meetings but not...”
10. GDP: “Very informative when screenshots of different question responses were provided”
11. GDP: “Good discussions during the meetings and thought provoking results”
12. GDP: “There were quite a few surprises (informing patients, etc.).”
13. GDP: “That even an experienced dentist can learn something new. Some of my patients’ answers were unexpected.”
14. Steward: “Participants seemed more motivated to collect more data when they realised what data could be used for.”
15. Steward: “Those GDPs with fewer patients realised that proportion data and comparisons with other GDPs wasn’t as insightful when fewer patients had participated.
16. GDP: “the receptionist realised that and only gave it to sort of the twenty thirty something year olds. Because they knew they could fill it in.”
17. GDP: “Not enough patients for clear picture”
18. Steward: “...and so it generated a conversation around. if the patient knew what he was actually examined for and how patients were going to adopt that in practice. And then there was surprise expressed around examining for holes in the teeth, examining the gums and how can I communicate that?
19. GDP: “Data well-presented and good discussion regarding this”
20. GDP: “Overall interesting discussion on experiences with data collection, questionnaire and potential results”

6 Overall opinion of the Field Studies

1. GDP: “It was a good group, and the project sounds exciting.”
2. GDP: “It sounds like an interesting project. As a dentist, it’s important to remain aware of scientific developments and stay in contact with your colleagues’
3. GDP: “So now we discussed that we couldn’t improve it, because we don’t have any comments to add because we were satisfied with the whole program.”
4. GDP group consensus: “Interesting project, good to have data on patients”
5. GDP: “Nice to interact with colleagues”
6. GDPs: “it was good to have the opportunity to discuss with colleagues the business of dentistry, the perception of patients and to act and reflect on what I do in practice”
7. What has been good about being part of the Field Studies? – GDP group consensus: “Feedback about practice”
8. What has been good about being part of the Field Studies? – GDP group consensus: “How much patients enjoyed being asked to participate”
9. What has been good about being part of the Field Studies? – GDP group consensus: “Interesting to see/hear what the patients experience”
10. Steward: “I would add, I’d say the ability to work with people from across Europe and from my point of view I think that’s been the best bit. So, exchanging ideas and getting to know people and finding out actually that we all have the same problem wherever we are.”
11. GDP: “I mean that cross fertilisation that cross pollination and the opportunity to just engage Europe-wise as well as within my own country with my own group.”
12. GDP: “The amount of time needed isn’t necessarily compatible with the working hours of an established dentist.”
13. GDP: “It was not attractive to get started with the iPad. It was a time-intensive job in the practice.”
14. GDP: “Too many technical problems, too many things we had to do e.g. the DUO login for the app which wasn’t necessary for the study”
15. Steward: “Meeting postponed due to the delayed supply of iPads”
16. GDP: “There was an initial issue with the length of the password and the need to re-enter it each time a questionnaire was completed. However, once this issue was sorted, everyone agreed that the process became easier.”
17. Steward: “They have simplified the passwords, by using a sequence of only numbers. Initially it was a password that you could not remember or fill in easily. Also, the time in which the password had to be filled in again was adjusted. Now they have more time before the app says the password has to be filled in again.”
18. GDP: “The iPads have finally been delivered”
19. GDP: “We were able to see the Dashboard”

7 Perceived results

1. GDP: “Discussion was stimulating and interesting”
2. GDP: “We had a very good discussion, and I now have a better insight into the work of the colleagues who participated”
3. GDP group consensus: “Think about what is done on a daily basis”
4. GDP: “There is a way of bettering yourself as a dentist. You look at things you could do better. And actually then you can go ‘oh actually maybe I should be doing like this instead’”
5. GDP: “Difference in patients result than what I anticipated”
6. GDP: “I think we’ve all learned something new. How do colleagues approach patients? How do patients view the dentist’s work?”
7. GDP: “I was surprised that the amount of information given to my patients was so little understood, compared to what I expected”
8. GDP: “Providing patients with a better understanding of exactly what I am carrying out for every part of the check-up”
9. GDP: “Need to communicate better with patients”
10. GDP: “The action point was, better information concerning what the dentist really does, for instance the screening for oral cancer and other diseases”
11. GDP: “I learned from other dentists in the group various things that I will incorporate in my own practice”
12. GDP: “I had instructed my staff to engage with the patient more. We should not lose focus of patients’ wishes and ideas.”
13. GDP: “I informed a lot more according to screening for cancer/mucosa”
14. GDP: “More explanation to patient. Remember to ask them about home care”
15. GDP: “I have said more frequently to patients that I have carried out a cancer check”
16. GDP: “Clearer attention to medical history”
17. GDP: “Use more fluoride”
18. GDP: “I’ll be paying more attention to the steps I take regarding how I inform patients. I will also rethink how I engage with patient”
19. GDP: “Ensure to include [patients] in decisions”
20. GDP: “Ask patients more regularly whether they have actually understood the information they have received”
21. GDP: “To do SEAL treatments which we have discussed”
22. GDP: “Patients still don’t understand much of what I’m trying to tell them”
23. GDP: “Some remuneration would help, in order to compensate for the time spent”
24. GDP: “I don’t think I will do much differently; however, we are already paying more attention to how patients experience their treatment.”
25. Participating in the Field Studies have helped me to make actual changes to the way I deliver dental care: GDP: “No, because: Not enough patients for clear picture. Impossible to compare in necessary detail.”
26. GDP: “To access the dashboard in advance of the next meeting and to collect more data”
27. GDP: “I will try to encourage more patients to participate. I hope to be able to use AnalytiX [Dashboard] by that point”
28. GDP: “I could perhaps ask patients to complete App questionnaire after their treatment.”

### 8 Recommendations for the future (World Cafe results)

1. GDP: “Why would you give smoking advice if the patient doesn’t smoke? Look, they’ve told you that they don’t smoke, why isn’t there a skip on this or things like that”
2. GDP: “Some of the questions were multi answer and some were one answer and it wasn’t quite clear.”
3. GDP: “We had information (poster) hanging in the waiting room, this was very helpful. The assistants and GDPs could refer to this. It solved most of the question the patients would have.”
4. GDP: “And I feel like if there were some images there, that would have helped some of them”
5. GDP consensus: “They would have liked a catalogue of ideas as how to get to use the iPad.”
6. GDP: “Questionnaire that could be completed at home on line by patient. TIME is a big issue for patients. The completion rate might be less but more likely to invite all patients to take part.”
7. Steward: “That the questionnaire should be available in a number of languages irrespective of even if it were English-speaking, for example we have an awful lot of Polish people working in, so they found that if they could have collected the Polish, that would have been helpful”
8. GDP: “we added the university logo and explained that this was linked to the university. This was reassuring for the patients to fill in the questionnaire.”
9. GDP: “One potential solution could be to utilise SKYPE or other virtual and digital communication systems but would this allow for open dialogue, particularly if the participants are not known to each other and/or cannot see them?”
10. Steward: “The importance of networks in establishing suitable contacts and increasing recruitment opportunities. There is no research network in place therefore the project is dependent upon existing networks the Steward have established.”
11. Steward: “They didn’t really want stacks of information. I don’t think. So, it has to be kept as simple as possible.”
## Appendix 13. (continued). Results focus groups proof-of-principle study.

### Table 2. GDPs' views on ADG meetings

<table>
<thead>
<tr>
<th>GDPs' views on ADG meetings</th>
<th>n/N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The objectives of the field study were clearly defined</strong></td>
<td></td>
</tr>
<tr>
<td>Strongly agree/agree</td>
<td>49/57 (86)</td>
</tr>
<tr>
<td>Neutral</td>
<td>8/57 (14)</td>
</tr>
<tr>
<td>Strongly disagree/disagree</td>
<td>0/57 (0)</td>
</tr>
<tr>
<td><strong>The moderator was well prepared</strong></td>
<td></td>
</tr>
<tr>
<td>Strongly agree/agree</td>
<td>57/57 (100)</td>
</tr>
<tr>
<td>Neutral</td>
<td>0/57 (0)</td>
</tr>
<tr>
<td>Strongly disagree/disagree</td>
<td>0/57 (0)</td>
</tr>
<tr>
<td><strong>The meeting was well organised</strong></td>
<td></td>
</tr>
<tr>
<td>Strongly agree/agree</td>
<td>52/57 (91)</td>
</tr>
<tr>
<td>Neutral</td>
<td>4/57 (7)</td>
</tr>
<tr>
<td>Strongly disagree/disagree</td>
<td>1/57 (2)</td>
</tr>
<tr>
<td><strong>The Dashboard was a helpful tool during the meeting</strong></td>
<td></td>
</tr>
<tr>
<td>Strongly agree/agree</td>
<td>15/27 (56)</td>
</tr>
<tr>
<td>Neutral</td>
<td>9/27 (33)</td>
</tr>
<tr>
<td>Strongly disagree/disagree</td>
<td>3/27 (11)</td>
</tr>
<tr>
<td><strong>This group meeting experience will be useful in my work</strong></td>
<td></td>
</tr>
<tr>
<td>Strongly agree/agree</td>
<td>44/57 (77)</td>
</tr>
<tr>
<td>Neutral</td>
<td>13/57 (23)</td>
</tr>
<tr>
<td>Strongly disagree/disagree</td>
<td>0/57 (0)</td>
</tr>
<tr>
<td><strong>The time allotted for the meeting was sufficient</strong></td>
<td></td>
</tr>
<tr>
<td>Strongly agree/agree</td>
<td>50/57 (88)</td>
</tr>
<tr>
<td>Neutral</td>
<td>5/57 (9)</td>
</tr>
<tr>
<td>Strongly disagree/disagree</td>
<td>2/57 (3)</td>
</tr>
</tbody>
</table>