Application for the 2019 Sunstar Foundation World Dental Hygienist Awards

Activity/Project Category

Project Title: Integrating evidence-based dentistry within a public dental program for children

Key Sections Addressing The Selection Criteria

The entry should provide details of the activities that have made a key contribution to patients, the community or to the general public. The positive impact of the activities on the health of a significant number of individuals should be empirically demonstrated. This Award is open to individuals as well as groups of dental hygienists who have made notable accomplishments in any area of oral health promotion, including counseling, education, innovation, prevention and treatment. Measurable outcomes that demonstrate improved health must be provided.

 Relevance and importance of the Activity/Project to the Dental Hygiene profession Page 2, Introduction section.
 Page 11, paragraph 1 and 3.

Page 912 paragraph 1.

• Whether the Activity/Project will make key contributions to patients, the community or the general public

Page 6-9, Results section.

- Originality of the Activity/Project Page 4 and 5, Methods section.
- The Activity/Project's ability to improve oral health Page 6-9, Results section.
 Page 10-12, Discussion section.
- The Activity/Project's ability to be scaled-up and replicated by others Page 11, paragraph 2.
- Technical writing skills of the applicant. N/A.

Note: Applied as an individual application given co-researcher on this project is a registered dental specialist (paediatrics), with full CV attached.

Abstract

Background

This quality assurance project is one of the first Australian-based studies to report on the types of clinical services provided within a community public dental program (Peninsula Heath) for children aged 0-12 years, including the health economic impact of a 1-day continuing professional development (CPD) education program for dental practitioners. Outcomes were quantified using quality-adjusted life years (QALYs) and prevented Decayed, Missing and Filled Teeth (DMFT) index. The incremental cost-effectiveness ratio (ICER) was also calculated. Rate of dental services were compared against a performance benchmark developed by the researchers.

Statement of Purpose

The objectives of this project were to:

- 1. Report on the type and rates of preventive, restorative and extraction services provided 12 months' pre-intervention of the 1-day CPD program;
- 2. Report on the change in dental services provided 12 months' post-intervention;
- 3. Compare the differences in the rates of clinical services provided by the intervention and standard care group;
- 4. Test no difference between the clinical productivity of the intervention and standard care.

Results

For QALYs outcome, the intervention was more costly and gained fewer QALYs compared to standard care when the costs of all dental treatment were incorporated in the analysis. When restoration and extraction services only were considered, the intervention saved costs and gained fewer QALYs. The ICER was -\$3,060/QALY for all treatment services and \$331/QALY for restoration and extraction services only. For prevented-DMFT outcome, the intervention was more clinically effective coupled with extra costs compared to standard care when incorporating all treatment services. When costs for restoration and extraction services only were analysed, the intervention was less costly and more clinically effective. The ICER calculated was \$2,335/prevented-DMFT for all treatment costs analysis and -\$270/prevented-DMFT when only costs of restoration and extraction services were considered.

Discussion

Our work provides quantitative evidence that the focus of prevention provided by public dental services requires serious attention. Contrary to the belief that preventive dental services are not financially attractive, the mean remuneration to the health service was \$250 per individual in comparison to standard care producing \$212 per individual. Despite many improvements for the rate of preventive dental services provided post-intervention, many services remain below the suggested performance benchmark. Health services should consider what appropriate dental workforce mix is required to provide dental hygiene care, which likely creates sustainable health outcomes for populations of all ages.

Conclusions

In summary, the study demonstrated the ICCMS/MID educational program could influence the type of dental services being provided over 12 months for children aged 0-12 in a community dental agency, particularly increasing the rate of topical fluoride applications.

Introduction

The International Caries Classification and Management System (ICCMS) integrates the Minimal Intervention Dentistry (MID) philosophy in a combined dental caries risk assessment and management plan.¹⁻³ It recognises dental caries as a dietary-related chronic disease.⁴⁻⁶ The MID approach acknowledges surgical dental treatment does not address the root cause of dental caries, and its progression and new incidence of the oral disease are associated with poor oral hygiene practices³ and sugar intake.⁶⁻⁸ Many components of MID are core components of dental hygiene practice, which includes an oral health risk assessment, diagnosis treatment, management and oral health education for the prevention of oral disease.⁹ Despite robust evidence supporting its implementation, MID approaches have not been adopted systematically within public dental services in Australia.¹⁰

The Victorian Auditor-General's Office (VAGO) report on public dental services identified that the current clinical delivery service models do not place specific emphasis on appropriate oral health risk assessment, prevention, early intervention and minimally invasive surgical dental techniques. They report that Victorian dental agencies only deliver some elements of MID practice and this may perhaps be related to the existing funding model.¹¹ However, globally there appears to be a systematic failure to implement effective primary and secondary prevention, as surgical approaches for dental caries remain widely practised.¹² For example, a systematic review assessing the threshold for dental caries between 21%-48% of the time, and for occlusal caries between 12%-74% of the time when clinical recommendations indicate less invasive therapies should be used.¹³ There is an essential role in expanding dental hygiene practice within Australian public dental services, which has traditionally not employed dental hygienists.¹⁴

The ICCMS is supported by the Federation Denature Internationale 'White Paper on Dental Caries Prevention and Management' since it is the most comprehensive evidence-based system developed to date.¹⁵ To facilitate the dissemination and implementation of evidence-based practice, the ICCMS and MID should be integrated within formal dental education curricula, continuing professional development (CPD) for dental practitioners, and embedded within clinical guidelines. There is evidence that both clinical practice guidelines and CPD programs improve patient outcomes.¹⁶⁻¹⁸ Multimethod and multiphased CPD, which include a hands-on practical component, has the potential for the greatest impact.¹⁸ Faculty training on developing professionalism have also been identified to have demonstrated strong evidence for effectiveness.¹⁹

Health services have an important role in providing high quality and relevant CPD programs on the ICCMS/MID, which includes oral health promotion skills development, to enhance the quality of healthcare and dental hygiene practice excellence. These activities are consistent with the Ottawa Charter principles of Health Promotion, namely, 'create supportive environments', 'develop personal skills', and 're-orientate health services'. There is very little published work on how health services provide clinical care in the Australian public sector. Currently, performance measures for Victorian public dental services report on output-focused measures (e.g. adult waiting lists, number of services provided, etc.) and lack indicators for improved oral health outcomes, thus, failing to show whether they are effective, particularly with a preventive-focus.¹¹

This quality assurance project is one of the first Australian-based studies to report on the types of clinical services provided within a community public dental program (Peninsula Heath) for children aged 0-12 years. It also evaluated the health economic impact of a 1-day professional development program focused on the ICCMS and MID regarding the rates of preventive, restorative and extraction services provided. The outcomes of this project have significant implications for both policy-decision

makers in public dental funding and formal dental education programs that lead to dental practitioner licensure.

Peninsula Health is a Victorian community dental agency that provides public dental services at four dental service sites, in the City of Frankston and Mornington Peninsula Shire, south-east of Melbourne, Australia.

The objectives of this project were to:

- 1. Report on the type and rates of preventive, restorative and extraction services provided 12 months' pre-intervention of the 1-day CPD program;
- 2. Report on the change in dental services provided 12 months' post-intervention;
- 3. Compare the differences in the rates of clinical services provided by the intervention and the standard care group;
- 4. Test no difference between the clinical productivity of the intervention and standard care.

Methods

A convenience sampling method was adopted for this research. Dental practitioners allocated to the intervention group were recruited from two dental service sites, Hastings and Rosebud. Dental practitioners allocated to standard dental care group selected from the Frankston and Carrum Downs dental service sites. Both the intervention and standard care groups had approximately an equal full-time equivalent dental practitioner employment appointments. For the intervention group, dental practitioners received a 1-day CPD program on the ICCMS and MID in July 2017 delivered by the two researchers. The dental practitioners allocated to the standard care group did not receive the 1-day CPD program.

The topics covered in the 1-day CPD program included the following:

- Rationale for MID
- Principles of MID
- Theory of ICCMS
- Clinical protocol of ICCMS
- Case study examples of MID
- MID and clinical productivity
- Enablers and barriers to MID

The CPD program included a 1-hour workshop on how this project could be implemented by the whole dental team, inclusive of dental assistants and dental receptionists. The composition of dental practitioners includes dentists, dental therapists and oral health therapists (dual-qualified in dental hygiene and dental therapy).

A multistage clinical record audit at Peninsula Health collected information on dental item codes billed across both intervention and standard care groups for 12-month pre- and 12-month postintervention. Feedback for the intervention group was provided monthly using a "traffic light" reporting system to demonstrate the type and rate of dental services visually. The research team determined a proposed dental service performance benchmark (Table 1) (circled in green), is on track to meet the benchmark (circled in orange) or requires significant improvement (circled in red) as illustrated in Figure 1.

The Australian child population dental caries and periodontal disease prevalence for ages 0-12 were used to develop the proposed performance benchmark. Oral health surveillance data found that 42% of children aged 5-10 years had a history of dental caries experience and 22% of children had gingivitis.²⁰ Data for the 0-4 age group does not exist. Therefore, clinical services related to routine dental care had a performance benchmark rate of 142 per 100 individuals (42% of children requiring a 6-monthly service and the remaining 58% of children requiring a 12-monthly service), while clinical services related to increased risk for dental caries was set at a rate of 42 per 100 individuals. Clinical services related to the management of gingivitis had a performance benchmark of 22 per 100 individuals. (Refer to Appendix 1 for a description for the developed performance benchmark).

Final data for both groups were extracted for 12-month pre-intervention (baseline) and 12-month post-intervention via a clinical services audit as at September 2018. All de-identified data on common dental services provided for children aged 0-12 were statistically analysed using Excel 365 Periplus (Microsoft Corporation) and Stata 12 IC (Stator). This project received a quality assurance approval (QA/18/PH/4) by Peninsula Health and completed according to the principles of the Declaration of Helsinki. Two-sample proportions tests determined whether there is a statistically significant difference between the intervention and standard care groups on dental treatment services.

An economic evaluation was performed using the decision-tree analysis from the health service perspective. Fee charges were based on the Child Dental Benefits Schedule (CDBS).²¹ Health outcomes were evaluated using quality adjusted-life years (QALYs), which is the adjusted number of years lived in full health based on the health preference weights developed by Allister and Spencer (1993).²² It is one of few existing utility preference weights for the Decayed, Missing and Filled Teeth (DMFT) index. Improved health using QALYs was assumed to move from a decayed state to restored state (0.54 QALY), or a decayed state to missing state (0.19 QALY) for treatment services related to restorations and extractions. Dental outcomes were evaluated based on the combined prevented DMFT index (prevented-DMFT) for deciduous and permanent teeth. The combined DMFT was derived from restoration and extraction services only.

The cost in 2017 Australian dollars, QALYs and prevented-DMFT, were calculated as mean values per individual from a health service perspective. Two cost scenarios were analysed: 1) all general treatment services and 2) only restorations and extractions. A ratio of the difference in costs and benefits, the Incremental Cost-Effectiveness Ratio (ICER), per QALY and prevented-DMFT was calculated. The ICERs per QALY were compared against the cost-effectiveness analysis (CEA) threshold of \$50,000 per QALY. The average costs per QALY and prevented-DMFT were also calculated (Table 2). No discounting was applied since evaluation was completed within 12 months' post-intervention.

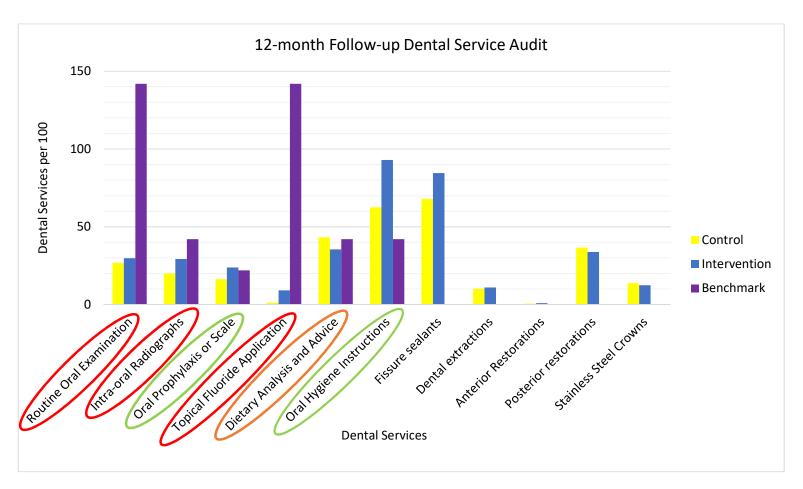


Figure 1 Dental services provided per 100 individuals at 12 months' post-intervention.

Results

The total of number children included 3,265 in the intervention group and 4,973 in the standard care group at baseline, and 2,853 in the intervention group, and 4,698 in the standard care group for the 12 months' post-intervention analyses. The type and rates of dental services comparing baseline and 12 months' post-intervention are illustrated in Table 1. Summary statistics comparing the intervention and standard care group at 12-month post-intervention is shown in Table 2. A graphical representation of dental services provided assessed against the proposed performance benchmarks is visually presented in Figure 1.

For QALYs outcome, the intervention was more costly and gained fewer QALYs compared to standard care when the costs of all dental treatment were incorporated in the analysis. When restoration and extraction services only were considered, the intervention saved costs and gained fewer QALYs. The ICER was -\$3,060/QALY for all treatment services and \$331/QALY for restoration and extraction services only. Average costs of all treatments per QALY was \$1,196 for the intervention and \$955 for the standard care. Average costs for restoration and extraction services only was \$368 for the intervention and \$369 per QALY in the standard care.

For prevented-DMFT outcome, the intervention was more clinically effective coupled with extra costs compared to standard care when incorporating all treatment services. When costs for restoration and extraction services only were analysed, the intervention was less costly and more clinically effective. The ICER calculated was \$2,335/prevented-DMFT for all treatment costs analysis and - \$270/prevented-DMFT when only costs of restoration and extraction services were considered. Average costs of all treatments per prevented-DMFT were \$532 in the intervention and \$436 in the standard care. Average costs for restoration and extraction services was \$164 for the intervention and \$169 for the standard care.

	Standard Care			Intervention			
Service Type	Baseline (<i>n</i> = 4,973)	12-Month (<i>n</i> = 4,698)	p-value	Baseline (<i>n</i> = 3,265)	12-Month (<i>n</i> = 2,853)	p-value	Benchmark
Routine oral examination	28.0	26.8	0.016*	33.7	29.9	<0.001*	142
Intra-oral radiographs	18.9	20.0	0.147	32.7	29.4	0.005*	42
Oral prophylaxis or scale	14.5	16.3	0.014*	28.4	23.9	0.037*	22
Topical fluoride application	0.7	1.3	<0.001*	3.6	9.2	<0.001*	142
Dietary analysis and advice	41.9	43.3	0.168	26.6	35.4	<0.001*	42
Oral hygiene instructions	58.6	62.6	<0.001*	97.8	93.0	<0.001*	42
Fissure sealants	68.6	67.8	0.425	90.6	84.5	<0.001*	n/a
Dental extractions	11.0	10.3	0.264	11.8	11.0	0.314	n/a
Anterior restorations	1.1	0.7	0.025*	1.3	0.9	0.174	n/a
Posterior restorations	40.6	36.6	<0.001*	38.9	33.8	<0.001*	n/a
Stainless steel crowns	5.3	13.8	<0.001*	8.1	12.4	<0.001*	n/a

n/a = not applicable

* statistically significant

Table 1 Rates of clinical services provided per 100 individuals at baseline and 12 months' post-intervention.

Service Type	Standard Care	Intervention	p-value	ICER value
Periodic oral examination	26.8	29.9	<0.001*	
Bitewing intra-oral radiographs	20.0	29.4	< 0.001*	
Oral prophylaxis or scale	16.3	23.9	< 0.001*	
Topical fluoride application	1.3	9.2	< 0.001*	
Dietary analysis and advice	43.3	35.4	<0.001*	
Oral hygiene instructions	62.6	93.0	<0.001*	
Fissure sealants	67.8	84.5	< 0.001*	
Dental extractions	10.3	11.0	0.323	
Anterior restorations	0.7	0.9	0.167	
Posterior restorations	36.6	33.8	0.014*	
Stainless steel crowns	13.8	12.4	0.081	
	All general dental services			
Mean cost (\$)	212	250		
Mean QALYs	0.222	0.209		
Mean prevented-DMFT	0.486	0.470		
ICER per QALY				-3,060
ICER per prevented-DMFT)				2,335
Average cost per QALY	\$955	\$1,196		
Average cost per prevented-DMFT	\$436	\$532		
Re	storation and extraction services of	only		
Mean cost (\$)	82	77		
Mean QALYs	0.222	0.209		
Mean prevented-DMFT	0.486	0.470		
ICER (QALYs)				331
ICER (prevented-DMFT)				-270
Average cost per QALY	\$369	\$368		
Average cost per prevented-DMFT	\$169	\$164		

* statistically significant

Table 2 Summary statistics comparing the standard care group and intervention group, and the calculated incremental cost-effectiveness ratios.

Discussion

This project illustrates that there is significant variation regarding the provision of dental services within the Peninsula Health Community Dental Program, which is one of 53 community publicly funded dental agencies in Victoria. Although dental practitioners largely have autonomy to provide best dental hygiene practice to oral disease management, namely dental caries and periodontal disease, our findings suggest there are other underlying internal and external contributing factors that impact on how dental services are provided. Our work provides quantitative evidence that the focus of prevention provided by public dental services requires serious attention.

Current Australian 'fee-for-service' dental funding models have done little and fail to improve the effectiveness of public dental services.^{11,23} However, our results show that dental practitioners in the intervention group were already MID/ICCMS "orientated". i.e. these dental practitioners were already providing higher rates of preventive-focused procedures such as routine oral examinations, intra-oral radiographs, oral prophylaxis and scaling, topical fluoride applications, oral hygiene instructions and fissure sealants, but not for dietary analysis and advice, compared to the standard care group. However, there was a substantial increase for dietary analysis and advice services from 26.6 per 100 individuals at baseline compared to 35.4 per 100 individuals at the 12 months' post-intervention. Not only was the rate of preventive dental services among the intervention group was statistically significant, but the magnitude is also noteworthy. Also, contrary to the belief that preventive dental services are not financially attractive, the mean remuneration to the health service was \$250 per individual in comparison to standard care producing \$212 per individual.

Overall, there was a reduction in the rate of several preventive services in the intervention group at the 12 months' post-intervention for routine oral examinations, bitewing intra-oral radiographs, oral prophylaxis or scaling, oral hygiene instructions and fissure sealants. The results may be influenced by the total reduction in the number of individuals treated in the 2017/18 financial year or impacted by fluctuations the level of outreach school dental screening activity also provided by Peninsula Health. The reduction in the rate for oral hygiene instructions is encouraging since the current rate is more than double the benchmark rate. i.e. the rate of these services provided would be considered "unwarranted". Reducing unnecessary dental services is an opportunity to deliver other essential dental services. Other positive outcomes are the increasing rates for dietary analysis and advice, which is closer to the benchmark rate at 12 months' post-intervention, and approximately three-fold increase in the rate of topical fluoride applications. Despite improvements, many preventive dental services remain below the performance benchmark.

The placement stainless steel crowns (SSC), including the application of the Hall technique, should be recognised as an ICCMS/MID dental treatment procedure since it preserves tooth structure and is more effective than fillings for managing decay in primary molar teeth.²⁴ Both the intervention and standard care group had statistically significant increases in the rate for the use of SSC (data may include both conventional and Hall crown technique), There was also an expected decrease in the rate of posterior restoration and extraction services and for both groups as children move from "untreated" dental caries to being surgically "treated". This trend suggests the professional development program may have had no impact on the rate of surgically-based dental services performed or both cohorts have similar dental treatment needs. Increased rate of SSC procedures may be attributed to the investment by Peninsula Health in providing an educational program in late 2016 for SSC including the Hall SSC crown technique, in which both the intervention and control groups were exposed.

The economic analysis for QALYs outcome shows that the intervention leads to more costly and less clinically effective services when all treatment costs are analysed, suggesting that the intervention should not be adopted. When costs of extraction and restoration services only are considered, the intervention leads to more cost-effective services given the ICER per QALY was below the CEA threshold of \$50,000/QALY. Unfortunately, QALYs does not consider the clinical benefit of preventive services including fissure sealants, which have both preventive purposes for dental caries development,²⁵ and therapeutic effects to arrest fissure caries in dentine.²⁶ These unquantifiable "utilities" of preventive focused dental care cannot be captured using the QALYs outcomes, which would underestimate the true value of an ICCMS/MID approach for oral disease prevention or preventing oral disease progression. More research is needed to quantify the value of dental hygiene practice regarding prevention, perhaps using oral disease risk measures or patient-reported outcome measures.

The major strengths of this project are the adoption of a 'natural experiment' approach, which was required little resources, to influence dental practitioner behaviour. Dental practitioners in the intervention group could continue to provide "usual" care because they were not directed to provide dental services under strict clinical guidelines or protocols. Nevertheless, the positive health economic outcomes from the 1-day CPD program showed more work is needed to minimise low value or unwarranted clinical care, and increase high value dental treatment services such as fluoride varnish,^{27,28} application fissure sealants^{25,29,30} and the placement of Hall technique SSC crowns.^{31,32} Another advantage of this intervention is that it can be easily transferable to other community dental agencies in Victoria and Australia-wide and applied to all age groups. Policy-decision makers should consider adopting the performance benchmark used in this project to facilitate the translation of preventive-focused dental services into practice. Given dental practitioners in the intervention group provides dental services for all ages, it would be fascinating to investigate if there has been any impact from the 1-day CPD program persons aged older than 12 years.

While this study demonstrated changes in behaviour, which is a desirable learning outcome, it is difficult to determine how the education program has made an impact at an individual dental practitioner perspective. Confounding factors that influenced changes in dental service provision also need to be considered but were unable to be controlled for in this quality assurance project. They include the varying degree on individuals' self-reflecting learning through experiential clinical learning, dental practitioners attending other CPD programs, changes in the risk profile of patients, the number of patients receiving care, effects of the change to dental staffing, changes in clinical guidelines. Additional qualitative and quantitative evidence would be needed to support whether the intervention of this study should be replicated to other settings, and to understand whether dental practitioners' level of knowledge, attitudes and behaviour impacts on the implementation and translation of ICCMS/MID practice. Health services should also consider what the appropriate dental workforce mix to provide dental hygiene care, which likely creates sustainable health outcomes for populations of all ages.

There are additional data limitations of this study. Firstly, a dental service audit cannot determine whether dental service provided are of appropriate quality, or whether they are clinically indicated. This aspect of care is critical to public health goals because resources in the public dental sector are scarce and can impact on accessible dental care to other patients. Secondly, our key assumption is that QALYs were only based on restoration and extraction services that are assumed to shift from a 'disease' state to a 'treated' state. This assumption could overestimate QALYs because teeth are restored due to trauma, broken fillings or removed due to irreversible pulpitis, difficulty in normal exfoliation and trauma. Thirdly, dental services could not be matched to individual patient oral disease

risk profiles. QALYs and prevented-DMFT outcome measures cannot quantitatively measure the benefit of prevention services, which is a fundamental flaw recognised in the study of an outreach school-based dental check-up program.³³ Data collection and the use of patient-reported outcome measures in dentistry is essential to determine the value for investment in dental hygiene practice and prevention. Further work is required to explore the enablers and barriers to implementing ICCMS/MID practice in community settings, in this case at Peninsula Health.

Conclusion

In summary, the study demonstrated the ICCMS/MID educational program could influence the type of dental services being provided over 12 months for children aged 0-12 in a community dental agency, particularly increasing the rate of topical fluoride applications. However, the rate of dental services for most preventive dental procedures remained significantly below the proposed performance benchmark developed by the research team. More research is needed to identify dental practitioners' understanding about ICCMS/MID practice, and how it can be translated deliver optimal levels of dental hygiene care for recipients of a community health service.

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Appendix 1

Routine oral examination – includes item code 011 – Comprehensive oral examination and 012 – Periodic oral examination. Performance benchmark based on routine dental care.

Intra-oral radiographs – includes item code 022 – Intraoral periapical or bitewing radiograph – per exposure. Performance benchmark Performance benchmark based on at increased risk for dental caries. Assumes one pair of bitewing intra-oral radiographs.

Oral prophylaxis or scale – includes item codes 111 – Removal of plaque and/or stain and 114 – Removal of calculus – first visit. Performance benchmark based on gingivitis prevalence.

Topical fluoride application – includes item codes 121 - Topical application of remineralisation and/or charismatic agents, one treatment and 123 - Concentrated remineralisation and/or aerostatic agents, application - single tooth. Performance benchmark based on routine dental care. Item code 123 assumed to be claimed twice per individual and converted as one unit of 121.

Dietary analysis and advice – includes item code 131 – Dietary analysis and advice. Performance benchmark based on at increased risk for dental caries.

Oral hygiene instructions – includes item code 141 – Oral hygiene instruction. Performance benchmark based on at increased risk for dental caries.

Fissure sealants – includes item code 161 – Fissure and/or tooth surface sealing - per tooth (first 4 services on a day) and 162 – Fissure and/or tooth surface sealing - per tooth (after 4 occasions of 161 on a day). No performance benchmark applied.

Dental extractions – includes item code 311 – Removal of a tooth or part(s) thereof and 314 – Sectional removal of a tooth or part(s) thereof. No performance benchmark applied.

Anterior restorations – includes item code 521-525 – Adhesive restoration – (one, two, three, four and five) surface - anterior tooth – direct. No performance benchmark applied.

Posterior restorations – includes item codes 531-535 – Composite resin restoration – (one, two, three, four and five) surface - posterior tooth – direct. No performance benchmark applied.

Stainless steel crowns – includes item code 576 – Metallic crown – preformed, 586 – Crown metallic - with tooth preparation – preformed and 587 – Crown metallic - minimal tooth preparation - preformed (Hall crown). No performance benchmark applied.

Note: Item codes 123, 131 and 141 are currently not covered under the Child Dental Benefits Schedule. Item codes 131 and 141 were cost-adjusted according to the Dental Weighted Activity Unit, the measure of clinical productivity used in Victorian public dental services. Item code 576 became obsolete from 2018 and replaced with item codes 586 and 587.