



# **Evaluation of Proposed Mandated Health Insurance Benefits**

## **Evaluation of Senate Bill 81:**

### **Mandated Coverage for General Anesthesia and Hospitalization for Pediatric Dental Procedures**



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Laura Lee O. Viergever

### **JLARC Staff for This Evaluation**

Nathalie Molliet-Ribet, Division Chief

Kimberly A. Sarte, Chief Fiscal Analyst

Andrew B. Dickinson, Senior Associate Legislative Analyst

JLARC provides evaluations of proposed health insurance mandates in accordance with Sections 2.2-2503 and 30-58.1 of the *Code of Virginia*.

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## Evaluation of Senate Bill 81: Mandated Coverage for General Anesthesia and Hospitalization for Pediatric Dental Procedures JLARC SUMMARY

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Senate Bill 81 (SB 81) of the 2012 General Assembly Session would amend Section 38.2-3418.12 of the *Code of Virginia*, which mandates health insurance coverage for medically necessary general anesthesia and hospitalization charges in pediatric dental procedures. Specifically, SB 81 increases the age under which coverage must be provided for medically necessary general anesthesia and hospitalization charges from five to 13. As is the case with the existing mandate, insurance providers would not be required to cover the costs of the dental procedure for which general anesthesia is being used. SB 81 would only require insurers to cover the costs of the general anesthesia and its administration in a hospital or outpatient surgical facility, and would not require insurers to cover these costs in a dentist's office.

### MEDICAL EFFICACY AND EFFECTIVENESS

General anesthesia's three goals are rendering the patient unconscious, free of pain, and immobilized. While other behavior management techniques and/or medications can achieve one or two of these goals, only general anesthesia can meet all three in a safe, effective, and humane fashion. The medical efficacy of general anesthesia for dental treatments has not been thoroughly reviewed, in part due to ethical issues that arise when denying it to patients who need it. However, medical experts indicate that general anesthesia is very effective, and that no sedation alternatives can achieve all three goals as safely and effectively.

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## **SOCIAL IMPACT**

Utilization of general anesthesia for dental procedures appears to be very low (less than 0.15 percent), and most children between the ages of five and 12 who require hospital-based general anesthesia appear to be covered by the existing mandate's "medical condition" or "severe disability" provisions. Most insurers report already providing the coverage in SB 81, and the State employee health plan reports no denials of claims for general anesthesia in dental patients between the ages of five and 12. However, based on interviews with medical experts, some patients between the ages of five and 12 may not be covered because they cannot meet the insurers' interpretations of the existing mandate's "severely disabled" or "medical condition" provisions. The out-of-pocket cost for general anesthesia and hospitalization for these children is significant, ranging from approximately \$9,000 to \$23,300.

## **FINANCIAL IMPACT**

SB 81 is not expected to result in significant changes to the utilization of general anesthesia in a hospital setting or the cost of providing such services, nor is it expected to substantially increase premium and administrative costs. Similarly, little to no change is expected over the next five years in the number or types of providers who administer general anesthesia in a hospital setting. The financial impact of the proposed mandate is expected to be low, primarily because the bill is not expected to significantly increase the utilization, as most children who require such services are likely already covered under the existing mandate. This is consistent with the experience insurers report for the existing mandate. Importantly, provisions of federal health care reform legislation would require the State to cover all costs associated with SB 81.

## **BALANCING MEDICAL, SOCIAL, AND FINANCIAL CONSIDERATIONS**

The proposed mandate is consistent with the role of health insurance and may provide access to medically necessary general anesthesia in a hospital setting for some patients. However, it appears that the mandate is attempting to address concerns regarding the safety of office-based general anesthesia for dental procedures and to ensure that patients who should qualify under the existing mandate receive coverage. If these are the primary goals, then it appears that assuring an adequate regulatory environment for the use of general anesthesia for dental procedures and clarifying language in the existing mandate about when coverage is required would more directly address these goals than the amendments in SB 81.

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## **Evaluation of Senate Bill 81: Mandated Coverage for General Anesthesia and Hospitalization for Pediatric Dental Procedures**

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Senate Bill 81 of the 2012 General Assembly Session would amend Section 38.2-3418.12 of the *Code of Virginia*, which mandates health insurance coverage for medically necessary general anesthesia and hospitalization charges in pediatric dental procedures. The existing mandate requires coverage of general anesthesia and admission to a hospital or outpatient surgery facility if they are required to safely and effectively provide dental care and the patient

- i. is under the age of five,
- ii. is severely disabled, or
- iii. has a medical condition and requires admission to a hospital or outpatient surgery facility and general anesthesia for dental care treatment.

Senate Bill 81 (SB 81) increases the age under which coverage must be provided for medically necessary general anesthesia and hospitalization charges from five to 13. It does not alter provisions (ii) or (iii) of the existing mandate. Importantly, as is the case with the existing mandate, medical insurance providers would not be required to cover the costs of the dental procedure for which general anesthesia is being used, such as a tooth extraction or root canal. SB 81 would only require insurers to cover the costs of the general anesthesia and its administration in a hospital or outpatient surgical facility.

### **BACKGROUND**

The American Society of Anesthesiologists defines general anesthesia as “a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation.” It is a state characterized by complete unconsciousness and amnesia (memory loss), complete analgesia (pain relief), and immobilization. Though most patients will never need general anesthesia for dental procedures, its use is occasionally determined to be medically necessary to eliminate a patient’s anxiety and pain and to immobilize the patient so that dental treatments can be provided safely and effectively.

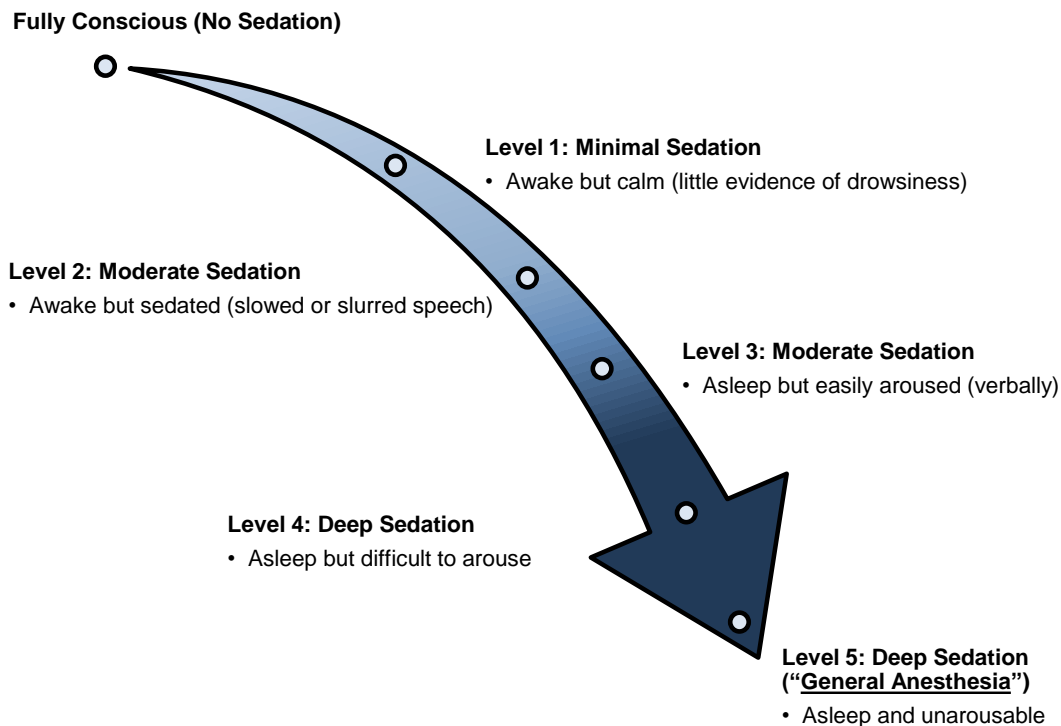
### Analgesics and Sedatives

Analgesics are drugs used to reduce or eliminate pain, while sedatives are drugs used to induce a state of calm or sleep. Some drugs can produce both effects, and higher doses induce deeper levels of sedation and/or pain relief.

### a. Description of Medical Condition and Proposed Treatment

While the vast majority of dental care is provided either without the use of any medication or by using local anesthetics that can reduce pain in a targeted region of the body, some patients may require sedatives and/or stronger analgesics to safely and effectively receive treatment. As Figure 1 illustrates, general anesthesia is at the strongest end of the dose-dependent continuum of sedation and analgesia (pain reduction), which ranges from a light sedative (typically nitrous oxide, or “laughing gas”) to general anesthesia, where the patient is unable to feel pain and is unable to be aroused, even if shaken. Because a patient’s respiratory and cardiovascular systems are depressed under general anesthesia, as shown in Table 1, the patient must receive breathing support and his or her vital signs must be carefully monitored during treatment.

**Figure 1: General Anesthesia Is at End of Dose-Dependent Continuum of Sedation**



Note: Figure is for illustrative purposes only and represents a subjective scale for the varying levels of sedation. Reaching the desired level of sedation requires careful preparation and monitoring, as reactions to specific doses of sedatives will vary by patient.

Source: JLARC staff illustration of scale presented in Becker, Daniel (2012). “Pharmacodynamic considerations for moderate and deep sedation,” *Anesthesia Progress*, 59: 28-42.



**Table 1: General Anesthesia Reduces a Patient to a State of Controlled Paralysis**

	<b>Minimal Sedation</b>	<b>Moderate Sedation</b>	<b>Deep Sedation</b>	<b>General Anesthesia</b>
<b>Responsiveness</b>	Normal response to verbal stimulation	Purposeful response to verbal or tactile stimulation	Purposeful response following repeated or painful stimulation	Unarousable even with painful stimulus
<b>Airway</b>	Unaffected	No intervention required	Intervention may be required	Intervention often required
<b>Spontaneous Ventilation<sup>a</sup></b>	Unaffected	Adequate	May be inadequate	Frequently inadequate
<b>Cardiovascular Function</b>	Unaffected	Usually maintained	Usually maintained	May be impaired

<sup>a</sup>Patient is able to breathe naturally, without requiring artificial breathing assistance, such as through mechanical ventilation.

Source: *Continuum of Depth of Sedation: Definition of General Anesthesia and Levels of Sedation/Analgesia*, American Society of Anesthesiologists, 2009.

The use of general anesthesia is not appropriate for all dental procedures or patients, and is infrequently determined to be medically necessary to provide safe and effective dental care. Instead, a minimal to moderate dose of a sedative and/or local anesthetic is sufficient to reduce or eliminate anxiety and/or pain in most cases. However, certain patients, particularly those of a young age or with certain psychological or physiological conditions that could compromise the safety of the patient or the provider, may require general anesthesia for their dental treatments.

Throughout the literature and guidance provided by professional associations (such as the American Association of Pediatric Dentists and the American Society of Anesthesiologists), general anesthesia is recommended as a treatment of “last resort”—one that should be considered after other behavioral management techniques have been attempted and found to be unsuccessful or to have achieved unsatisfactory results. Because of the potential risks of life-threatening complications, most of the research literature and professional guidance on general anesthesia recommends that practitioners make every effort to treat a patient in a conscious or moderately sedated state prior to considering general anesthesia for dental treatment.

To be eligible for the coverage proposed under this bill, general anesthesia and hospitalization must be determined by a licensed dentist and the patient’s treating physician to be “medically necessary” to safely and effectively provide dental treatment. The mandate states that the determination of medical necessity shall include a consideration of whether the patient’s age or physical or mental condition requires general anesthesia and hospitalization to safely provide the underlying dental care. No additional guidance is provided on the determination of medical necessity in SB

81, but § 38.2-5000 of the *Code of Virginia* defines “medically necessary care” as

appropriate and necessary health care services which are rendered for any condition which, according to generally accepted principles of good medical practice, requires the diagnosis or direct care and treatment of an illness, injury, or pregnancy-related condition, and are not provided only as a convenience.

#### **Medical Indications**

Medical “indications” refer to reasons why a particular test or treatment is necessary or appropriate.

Although there is no definitive list of conditions that qualify pediatric dental patients for medically necessary general anesthesia, appropriate indications for the use of general anesthesia for dental procedures will typically involve either a non-dental medical condition or the age of the patient. Intellectual impairments, such as autism, and respiratory issues, such as severe asthma, are among the most commonly cited reasons for prescribing general anesthesia for dental procedures. Other common indications include a patient with multiple physical and/or behavioral impairments, severe dental phobias, and an inability to cooperate or to sit still.

***Non-Dental Medical Conditions as Indications for the Use of General Anesthesia.*** Indications that most commonly necessitate the use of general anesthesia for dental procedures are those non-dental medical conditions that could jeopardize the safety of the patient, the practitioner, or the medical staff, or that could compromise the effectiveness of the dental procedure. Medical conditions that most commonly necessitate the use of general anesthesia for dental procedures include

- acute situational anxiety,
- respiratory disorders (such as severe asthma or obstructive sleep apnea),
- genetic syndromes/chromosomal disorders,
- neurological disorders (such as cerebral palsy or seizures),
- developmental delays,
- autism,
- cardiac anomalies,
- attention deficit/hyperactive disorder,
- craniofacial anomalies, or
- coagulation disorders/anemia.

Across most medical conditions requiring the use of general anesthesia, the inability of the patient to cooperate and/or control his or her movements during treatment are most often the underlying



reasons for prescribing general anesthesia. Because a patient is rendered unconscious under general anesthesia, his or her involuntary and voluntary movements are suppressed. Under lesser states of pain and anxiety management techniques, these voluntary and involuntary movements are less controlled, representing a potential safety risk to the patient and the dentist.

Medical experts also indicated that patients preparing for treatments involving the suppression of their immune system (such as cancer treatments) may also require general anesthesia for dental procedures. For these patients, extensive and lengthy dental work is sometimes required to treat or prevent infections prior to receiving immunosuppressant treatments. The controlled nature of general anesthesia (administered through an IV) allows for lengthier treatments than lesser forms of sedation, particularly those that require the patient to take sedatives orally.

***Chronological or Developmental Age as an Indication for the Use of General Anesthesia.*** The age of a patient can also be an indication for the use of general anesthesia, as some pediatric patients are unable to cooperate and because extensive and invasive dental treatments could cause psychological trauma to very young patients. According to the American Academy of Pediatrics, the sedation of children is different from the sedation of adults, as

a child's ability to control his or her own behavior to cooperate for a procedure depends both on his or her chronologic and developmental age. Often, children younger than six years and those with a developmental delay require deep levels of sedation to gain control of their behavior.

Medical literature on general anesthesia for dental procedures also generally considers general anesthesia to be appropriate for pre-school-age ("pre-cooperative") children who are not expected to be able to tolerate a dental procedure under lower levels of sedation.

When a procedure is expected to be lengthy or is likely to involve severe pain, general anesthesia may be also be considered medically necessary to protect a young patient from experiencing psychological trauma. According to the American Academy of Pediatric Dentistry, general anesthesia may be medically necessary to "protect the developing psyche" of a patient. However, there is no consensus on the age at which children are no longer at risk of suffering psychological harm without general anesthesia. One medical expert consulted for this study suggested that developmental tolerance typically begins somewhere between ages six and eight, while other patients can tolerate these procedures at an earlier age. According to another expert consulted for this study, there is

“no magic number” for the age at which pediatric patients will no longer need general anesthesia to prevent psychological harm.

***Other Indications for the Use of General Anesthesia.*** Although less likely to necessitate general anesthesia than a person’s non-dental medical condition or age, general anesthesia may also be medically necessary for certain dental patients who

- require significant restorative and/or surgical procedures;
- require immediate, comprehensive dental care (such as dental abscesses threatening a patient’s ability to breathe);
- who are moderately to extremely uncooperative; or
- who have demonstrated the inability to respond to other available guidance techniques, such as lesser forms of behavior management or sedation.

Because there is no definitive list of the indications of medically necessary general anesthesia, determinations of its medical necessity will vary by patient and by physician.

***Hospitalization May Be Medically Necessary for the Administration of General Anesthesia for Certain Patients.*** Although some patients may receive general anesthesia in a dentist’s office, the Virginia Board of Dentistry regulations prescribe that general anesthesia may not be administered in an office setting for certain patients. Specifically, patients with severe to life-threatening medical conditions (based on American Society of Anesthesiologists guidelines) must receive general anesthesia in a hospital or outpatient surgery facility. Both the existing mandate and SB 81 would only cover patients receiving general anesthesia in a hospital or outpatient surgical facility. Because a patient’s medical condition or disability is most likely to determine the need for hospitalization (as opposed to their age), most dental patients who require hospitalization should already be covered through provisions (ii) and (iii) of the existing mandate, including those between the ages of five and 12.

## **b. History of Proposed Mandate**

SB 81 amends the age provision of an existing health benefits mandate, which was reviewed by the Special Advisory Commission in 1999. According to its report, the Special Advisory Commission unanimously voted to recommend adopting the mandate, and determined “that the proposed mandate [would] be beneficial and [would] not significantly increase the cost of insurance.” Subsequently, the proposed mandate became law during the 2000 Session of the Virginia General Assembly.

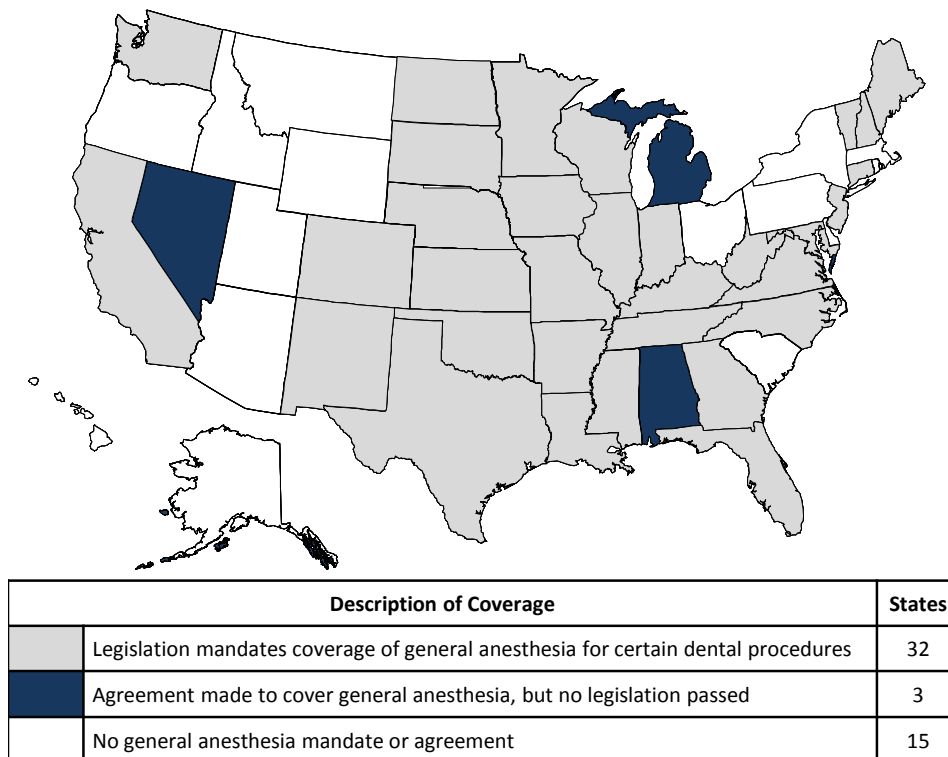
**Thirty-Two States Mandate Coverage of General Anesthesia for Dental Procedures.**

According to the American Association of Pediatric Dentists, as of May 2012, “32 states, as well as Puerto Rico, have passed legislation requiring private medical insurers to cover the hospital associated costs in providing comprehensive dental care in the operating room setting for pre-cooperative children” (Figure 2). Of the 32 states with such mandates, 28 include an age provision, with seven years old being the median age under which coverage must be provided. However, some states include a provision whereby the child must also meet additional criteria, such as needing multiple extractions or restorations, to be covered.

***In 26 of the 32 states with general anesthesia mandates, including Virginia, the health insurance mandate requires the covered procedures to be conducted in a hospital or outpatient surgical facility, and does not apply to those performed in a dentist’s office.***

In 26 of the 32 states with general anesthesia mandates, including Virginia, the health insurance mandate requires the covered procedures to be conducted in a hospital or outpatient surgical facility, and does not apply to those performed in a dentist’s office. Based on a review of the medical literature and interviews with medical experts, these provisions were included out of concern about the

**Figure 2: Thirty-Two States Have Laws Requiring Private Health Insurers to Cover General Anesthesia for Certain Dental Procedures and/or Dental Patients**



Note: 26 of 32 mandates require covered procedures be conducted in a hospital or outpatient facility.

Source: *An Essential Health Benefit: General Anesthesia for Treatment of Early Childhood Caries*, American Academy of Pediatric Dentists, 2012.

safety of administering general anesthesia in dentist's offices. The provisions of SB 81 would apply only to general anesthesia when administered in a hospital or outpatient surgical facility.

**2011 General Assembly Passed Legislation to Require Board of Dentistry to Issue Permits for Office-Based General Anesthesia.** In 2011, the Virginia General Assembly passed Senate Bill 1146, which amended § 54.1-2709.5 of the *Virginia Administrative Code* and directed the Board of Dentistry to require that dentists obtain either a conscious/moderate sedation permit or a deep sedation/general anesthesia permit to administer such treatments in dentist's offices. Through Senate Bill 1146, the Board was directed to establish "reasonable education, training, and equipment standards for safe administration and monitoring of sedation and anesthesia to patients in a dental office," which dentists must meet to obtain a permit. As of October 2012, the Board of Dentistry had issued emergency regulations, which clarified language in existing regulations and added additional requirements aimed at improving the safety of the administration of sedation and anesthesia in dental offices.

***The proposed mandate was introduced primarily as a means to address safety concerns about inadequate regulations governing the administration of general anesthesia in dentist offices.***

The passage of Senate Bill 1146 is relevant to this review because the proposed mandate was introduced primarily as a means to address safety concerns about inadequate regulations governing the administration of general anesthesia in dentist's offices, according to its supporters. Proponents of SB 81 and medical experts said that dentist's offices are not held to the same strict safety standards as hospitals, and that SB 81 would allow pediatric dental patients to afford the cost of receiving treatment in the "safest possible environment." It is unclear whether the eventual regulations responding to SB 1146 will address the concerns of proponents of SB 81.

**Federal Health Reform Requires States to Cover Costs of State Health Insurance Mandates Enacted After December 31, 2011.** Under provisions of the 2010 federal Affordable Care Act, states will have to pay 100 percent of the added costs of any state-mandated health insurance benefits enacted after December 31, 2011. If adopted, actuarial cost analyses would be needed to determine the impact of SB 81 on premiums. The State would be required to pay either the medical insurance carriers or the enrollees for any increase in costs attributable to SB 81.

### **c. Proponents and Opponents of Proposed Mandate**

Proponents and opponents of SB 81 will have the opportunity to express their views at the public hearing conducted by the Special Advisory Commission on Mandated Health Insurance Benefits. According to research conducted by JLARC staff, proponents of SB 81

include dental associations, dentists, and anesthesiologists. The primary opposition to the proposed mandate appears to be from the health insurance industry.

According to proponents of SB 81, the costs associated with receiving general anesthesia in a hospital setting are significant enough to prevent children between the ages of five and 12 from receiving necessary dental treatment, or from receiving the treatment in the safest possible environment. Proponents argue that general anesthesia and hospitalization charges are being denied simply because the nature of the treatment rendered is dental, rather than medical. They also contend that many children cannot receive hospital-based general anesthesia because they cannot meet the insurers' interpretation of the current mandate's "severe disability" or "medical condition" provisions.

Other arguments made by proponents involve the safety of the setting in which general anesthesia is administered. According to the literature, children are more likely than adults to "slip" into a deeper form of sedation than desired and are more vulnerable than adults to the effects of sedating medications on their vital functions, such as their respiratory and cardiovascular systems. Proponents argue that, based on current regulations, only hospitals have the trained staff and equipment needed to "rescue" a child from a deeper form of sedation than was intended.

Health insurance industry representatives said they opposed the bill because they already cover medically necessary general anesthesia and hospitalization for people of all ages and that this legislation would only increase the use of "elective" general anesthesia. Specifically, they cite Item 1.A.(iii) of the existing mandate, which states that general anesthesia and hospitalization costs must be covered for patients "with a medical condition that requires admission to a hospital or outpatient surgery facility and general anesthesia for dental treatment." Representatives from the health insurance industry say they approve coverage on a case-by-case basis, but that if a child of any age has a medically necessary need for general anesthesia and hospitalization, these charges will be covered. (Proponents of SB 81 indicate that, in practice, some dental patients five years and older needing hospital-based general anesthesia are denied coverage despite Item 1.A.(iii) of the existing mandate.) Although the provisions of the bill give insurers the ability to require prior authorization for the coverage included in the proposed mandates, its opponents argue that SB 81 would increase the likelihood that general anesthesia is administered on a "convenience basis."

## MEDICAL EFFICACY AND EFFECTIVENESS

General anesthesia's three goals are unconsciousness, complete analgesia, and paralysis. While other behavior management techniques and/or medications can achieve one or two of these goals, only general anesthesia can meet all three goals in a safe, effective, and humane fashion. For example, treating a patient under moderate sedation and a local or regional anesthetic can eliminate pain, sedate the patient, and produce amnesia, but cannot safely render the patient unconscious or immobilized. The medical efficacy of general anesthesia for dental treatments has not been thoroughly reviewed, in part due to the ethical issues that arise when not giving it to dental patients who need it. However, medical experts indicate that general anesthesia is very effective in these situations, and no alternatives can achieve the same effects.

### a. Medical Efficacy of Benefit

#### Medical Efficacy

Assessments of medical efficacy are typically based on clinical research, particularly randomized clinical trials, demonstrating the success of a particular treatment compared to alternative treatments or no treatment at all.

The medical efficacy of general anesthesia compared to other levels of sedation for dental treatment has not been thoroughly researched and, therefore, cannot be determined. A 2009 review of the research literature “found no random controlled trials comparing general anesthesia to sedation for the provision of dental care in children.” According to this review, one of the chief reasons why no such efficacy studies have been conducted is because of challenges in developing comparable and representative samples.

Another reason why no controlled and randomized clinical trials have been conducted is that such a study could be considered unethical. Because general anesthesia is most commonly prescribed based on a patient's need, denying such treatment solely to create a control group could adversely affect the safety of those patients and the effectiveness of their treatments, resulting in otherwise preventable risks, pain, and/or trauma.

### b. Medical Effectiveness of Benefit

#### Medical Effectiveness

Medical effectiveness refers to the success of a particular treatment in a normal clinical setting, as opposed to ideal or laboratory conditions.

In the absence of controlled and randomized clinical trials, researchers have evaluated quality of life outcomes of patients that received dental care under general anesthesia, including improvements in pain relief after treatment and their ability to eat and sleep. One study, for example, surveyed parents of 45 children who had received general anesthesia for dental treatment. The survey indicated positive perceptions of dental outcomes and improved quality of life (increased smiling, improved school performance, and increased social interaction). A similar study found that dental rehabilitation, such as the restoration of natural teeth or replacement of missing teeth, “under general anesthesia was effective at minimizing or alleviating oral symptoms, daily life problems, and parental concerns” for children with special health care needs. An-



other study concludes that “dental rehabilitation under deep sedation/general anesthesia produces reliable and predictable outcomes.”

According to medical experts at the University of Virginia Medical Center and the Virginia Commonwealth University Medical Center, general anesthesia is very effective at achieving its intended goals of unconsciousness, complete analgesia, and paralysis. According to one medical expert, “General anesthesia is 100 percent effective [at achieving its intended goals], but is not without risks.” Another medical expert told JLARC staff that “general anesthesia is absolutely effective... [and] if a patient needs general anesthesia, there is no alternative.” This medical expert also noted that only general anesthesia is capable of rendering a patient completely immobile.

## **SOCIAL IMPACT**

Utilization of general anesthesia for dental procedures appears to be very low (less than 0.15 percent of all dental procedures conducted), and most children between the ages of five and 12 who require hospital-based general anesthesia appear to be covered by the existing mandate’s “medical condition” or “severe disability” provisions. Most insurers report already providing the coverage in SB 81, and the State employee health plan, as an example, reports no denials of claims for general anesthesia in dental patients between the ages of five and 12. However, based on interviews with medical experts, some patients between the ages of five and 12 may not be covered because they cannot meet the insurers’ interpretations of the existing mandate’s “severely disabled” or “medical condition” provisions. The out-of-pocket cost for general anesthesia and hospitalization for these children is substantial, ranging from approximately \$9,000 to \$23,300.

### **a. Utilization of Treatment**

Few pediatric dental patients require hospital-based general anesthesia to administer treatment safely and effectively. For example, of nearly 3.8 million dental procedures performed on children under the age of 13 and who were enrolled in Medicaid, FAMIS, and FAMIS Plus in fiscal years 2009 and 2010, only 4,600 (0.12 percent) required hospital-based general anesthesia. Further, only 0.08 percent of all dental procedures performed on children between the ages of five and 12 (the target population of SB 81) during these years required hospital-based general anesthesia. Importantly, according to medical experts, these figures likely overestimate utilization among the general population, because children eligible for Medicaid and FAMIS are more likely to be disabled or predisposed to more serious dental problems due to their socioeconomic status than the general population.

Medical experts also noted that the vast majority of patients are able to receive treatment safely and effectively with a local anesthetic or a lesser level of sedation. For instance, one medical expert estimated that of 10,000 pediatric dental visits her office receives each year, only 450 visits (4.5 percent) involve surgery with general anesthesia. These numbers are also likely to be higher than the general population because most of her patients are either disabled or are predisposed to serious dental problems due to their socioeconomic status. Likewise, her office is commonly the “last stop” for many patients whose dental needs could not be addressed under other levels of sedation—meaning her office handles a disproportionately high number of cases requiring general anesthesia compared to most pediatric dentists.

According to State employee health plan data, only one out of 35,727 (0.0028 percent) of all dental procedures provided for children under the age of 13 required general anesthesia in a hospital setting (inpatient or outpatient) during fiscal years 2009 and 2010. The single case involved a patient under age five, which would be covered through the existing mandate. Because this plan covers a wider range of patient characteristics, such as socioeconomic status and disability prevalence, these figures are more likely to represent the utilization among the general population than those procedures covered for children enrolled in Medicaid and FAMIS.

JLARC staff findings that utilization rates are very low are consistent with the research literature on general anesthesia for pediatric dental procedures.

## **b. Availability of Coverage**

Coverage of general anesthesia and hospitalization for dental patients between five and 12 years old appears to be available because of the “medical condition” and “severely disabled” provisions of the existing mandate. Among the 29 medical insurance companies operating in Virginia that replied to a survey conducted by the Virginia State Corporation Commission Bureau of Insurance (BOI), 16 indicated they already provide the coverage required by SB 81. Six of these 16 insurers indicated that coverage is provided at any age if hospital-based general anesthesia is determined to be medically necessary or meets provisions (ii) or (iii) of the existing mandate. The remaining 12 insurers indicated they do not provide the coverage required by SB 81 in their standard contracts.

## **c. Availability of Treatment/Benefit**

While general anesthesia is likely to be available more widely in urban areas than in most rural areas, medical experts consulted for this study indicate that it is generally available in most parts of Virginia. One medical expert said that it should be available at

any hospital or outpatient surgical facility in Virginia, noting that the administration of general anesthesia for dental procedures does not differ significantly from other non-dental procedures requiring general anesthesia. However, another medical expert noted that some patients, especially those who have serious medical complications, might need to drive long distances to access treatment at a major medical center, such as those located in Charlottesville, Fairfax, Norfolk, and Richmond.

Certain patients may also receive office-based general anesthesia for dental procedures (subject to Board of Dentistry regulations), but the availability of general anesthesia among these providers could not be determined. However, neither the existing mandate nor the proposed mandate includes coverage for office-based general anesthesia or any associated office-based facility charges.

#### **d. Availability of Treatment Without Coverage**

As detailed below, the cost of receiving dental treatment under general anesthesia can vary widely, depending primarily on whether hospitalization is required. For those patients that have a medical need for hospitalization to receive dental treatment, a lack of coverage will likely make the treatment cost-prohibitive. However, most, if not all, children who require hospitalization should be covered by the existing mandate because the need for hospitalization appears to be driven not by the child's age (particularly for children over five) but by severe trauma, a disability, or a non-dental medical condition. Although not covered under the existing or proposed mandated, children who require general anesthesia but not hospitalization can receive treatment in a dentist's office, which is estimated to be much less costly (as discussed below).

#### **e. Financial Hardship**

For parents whose children do not currently qualify for insurance coverage of general anesthesia and hospitalization charges, out-of-pocket costs to access this level of treatment in a hospital setting is substantial when compared to total average household expenditures. A 2010 Pew Center on the States report characterized dental cases requiring general anesthesia and hospitalization as "extraordinarily expensive," and reported an average hospitalization cost of approximately \$12,500 in 2006.

As shown in Table 2, according to "typical" cases provided by two large Virginia medical centers, charges for general anesthesia for pediatric dental procedures in a hospital setting appear to vary from \$9,028 to \$23,327, with an average total cost of \$16,306. Importantly, these costs do not include any services or supplies that are not associated with general anesthesia administration and its provision in a hospital setting, such as the dental procedure being

performed, which would not be covered under the provisions of SB 81.

**Table 2: Operating Room Charges Represent the Majority of Costs for Hospital-Based General Anesthesia for Sample of Pediatric Patients Who Received Dental Procedures**

Billing Item	Case 1	Case 2	Case 3	Case 4	Case 5	Average	Percent of Total Average Cost
Operating Room Time and Services	\$5,073	\$8,550	\$11,058	\$11,596	\$14,442	\$10,144	62%
Anesthesia Time and Services <sup>a</sup>	1,776	2,960	3,848	5,561	6,286	4,086	25
Recovery Room	1,365	1,019	1,019	1,250	1,875	1,306	8
Pharmacy and Drug Supplies	462	512	356	506	548	477	3
Operating Room Supplies	352	521	244	176	176	294	2
<b>Total Cost of General Anesthesia and Hospitalization</b>	<b>\$9,028</b>	<b>\$13,562</b>	<b>\$16,525</b>	<b>\$19,089</b>	<b>\$23,327</b>	<b>\$16,306</b>	

<sup>a</sup>Includes charges for anesthesiologist's time and services.

Note: Charges do not include those charges for the actual dental procedure, such as a tooth extraction or root canal. SB 81 only requires insurers to provide coverage for general anesthesia and the associated hospitalization charges. As a result, covered persons would still be responsible for paying for the cost of the dental procedure for which the general anesthesia and hospitalization were found to be medically necessary.

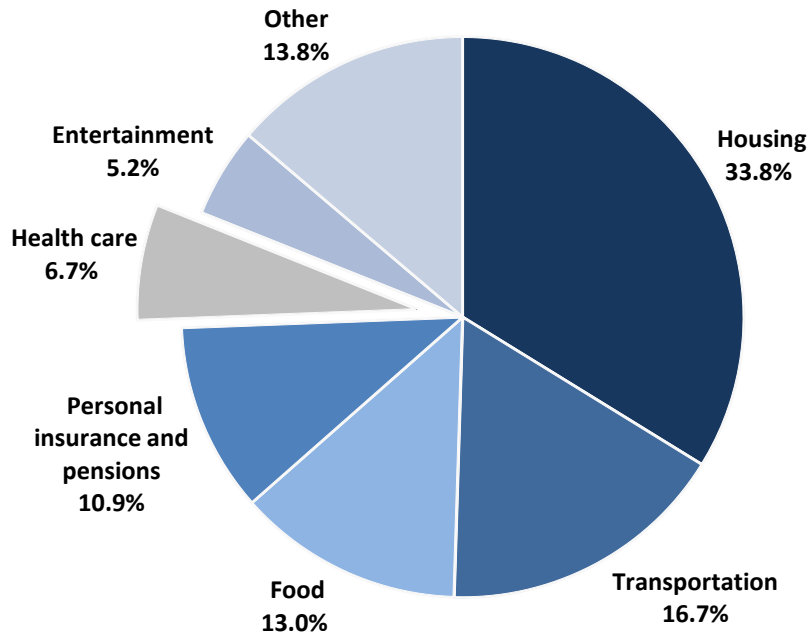
Source: Billing data provided by two large Virginia medical centers.

The cost of accessing general anesthesia in a hospital setting has the potential to represent a significant financial hardship for the average Virginia household. Assuming the range provided by the five cases in Table 2 is representative of the costs throughout Virginia, the out-of-pocket costs of general anesthesia in a hospital setting would account for 14.6 to 37.7 percent of the median household income in Virginia in 2011 (\$61,882). Similarly, the average expense of \$16,306 for general anesthesia and hospitalization would represent almost one-third of median U.S. household expenses (\$49,705) for that year—approximately the same percent of expenses dedicated to housing-related costs (Figure 3). As shown in Figure 3, this is substantially higher than the 6.7 percent of all U.S. household expenses were dedicated to health care expenses in 2011.

Although not covered under the existing or proposed mandate, accessing general anesthesia in a dentist's office appears to be substantially less expensive than accessing it in a hospital or outpatient surgical facility. Medical experts told JLARC staff they expected these costs to be lower primarily because treating a patient in an operating room is very expensive. In fact, as shown in Table 2, operating room charges account for almost two-thirds of the overall cost of receiving general anesthesia in a hospital. Consistent with these findings, according to estimates supplied by a small sample of dentist's offices in Virginia that provide office-based general anesthesia, out-of-pocket costs of general anesthesia

in these settings could be less than \$2,000 (not including the dental procedure to be performed). The total cost of general anesthesia appears to vary by dentist's office and depend primarily on the duration of the anesthesia administration.

**Figure 3: Health Care Costs Accounted for 6.7 Percent of Total Annual Household Expenditures in 2011**



Source: 2011 Consumer Expenditure Survey, U.S. Bureau of Labor Statistics (2012)

#### f. Prevalence/ Incidence of Condition

##### **Prevalence**

Prevalence is defined as the total number of cases of the condition in the population at a specific time.

Producing a reliable estimate of prevalence of the need for general anesthesia and hospitalization is challenging because, unlike a treatment to address a specific disease (such as a tooth cavity), general anesthesia is a means of providing treatment for a variety of different medical conditions. In other words, general anesthesia is not a condition, but a means to addressing many different conditions. Nevertheless, the number of pediatric dental patients between the ages of five and 12 who require general anesthesia and hospitalization to safely and effectively receive dental care is estimated to be low. In fact, based on reimbursement data for procedures performed on children enrolled in Medicaid and/or FAMIS and a review of the literature, it is estimated that less than 0.15 percent of all children in this age range require medically necessary general anesthesia and hospitalization for dental treatment in any given year.

#### **g. Demand for Proposed Coverage**

Because few children require general anesthesia and hospitalization for their dental treatment and because most children are expected to already be covered under the existing mandate's "severe disability" or "medical condition" provisions, unmet demand for the proposed coverage is expected to be very low. However, medical experts said they were aware of patients who were unable to receive dental treatment under general anesthesia in a hospital setting because their insurance did not cover it and they could not afford it out of pocket.

The medical insurance plan available to State employees and their families is covered by the existing mandate. Therefore, denials of coverage through the State employee health plan for hospital-based general anesthesia for dental procedures performed on children between the ages of five and 12 can help indicate the demand for the proposed coverage. Based on claim denial data, the demand appears very low. In fact, according to data from the State medical insurance plan for fiscal years 2009 and 2010, no claims that requested the use of general anesthesia in a hospital setting were denied for children between ages five and 12. This finding suggests that most children in this age range that require hospitalization and general anesthesia for dental procedures are likely already covered under provisions of the existing mandate.

#### **h. Labor Union Coverage**

Unions do not appear to have advocated specifically for inclusion of general anesthesia and hospitalization for pediatric dental patients in their health benefit packages. Typically, unions advocate for broader benefits, rather than benefits as specific as general anesthesia and hospitalization for pediatric dental procedures.

#### **i. State Agency Findings**

The Special Advisory Commission reviewed a proposed mandate for coverage of medically necessary general anesthesia and hospitalization for dental procedures in 1999. In that report, the Special Advisory Commission found that "the proposed mandate will be beneficial and will not significantly increase the cost of insurance." There are no other state agency reports or findings addressing general anesthesia and hospitalization for pediatric dental procedures.

#### **j. Public Payer Coverage**

All dental coverage for Medicaid, FAMIS, and FAMIS Plus children is processed through Virginia's Smiles for Children program, which provides coverage for general anesthesia and hospitalization for pediatric dental patients in certain cases. The program will



cover the costs of general anesthesia and hospitalization in extensive or complex oral surgical procedures and/or if

- the patient has a medical condition that requires monitoring (such as cardiac problems and severe hypertension);
- the patient has an underlying hazardous medical condition (such as cerebral palsy, epilepsy, developmental delays, or Down's syndrome) which would render the patient non-compliant;
- treatment under lesser levels of sedation has failed;
- the patient has a severe infection that would render local anesthesia ineffective; or
- the patient is three years old or younger and must undergo extensive procedures.

#### **k. Public Health Impact**

##### **Public Health**

The role of public health is to protect and improve the health of a community through preventive medicine, health education, and control of communicable diseases.

The public health impact of SB 81 is expected to be minimal, as the health benefits are expected to be localized to the patient receiving dental treatment under general anesthesia. While the benefits accrue to the patient gaining coverage, there is also a societal benefit if the child would have otherwise foregone treatment. Addressing dental problems can improve an individual's quality of life and can prevent the individual from developing more severe medical problems.

#### **FINANCIAL IMPACT**

SB 81 is not expected to result in significant changes to the utilization of general anesthesia or the cost of providing such services, nor is it expected to substantially increase premium and administrative costs. Similarly, little to no change is expected over the next five years in the number or types of providers who administer general anesthesia in a hospital setting. The financial impact of the proposed mandate is expected to be low, primarily because the bill is not expected to significantly increase the utilization of hospital-based general anesthesia for pediatric dental procedures, as most children who should require such services are likely already covered under the existing mandate. This is consistent with the experience insurers report for the existing mandate. Importantly, due to provisions of federal health care reform legislation, the State would be required to cover all costs (including additional increases in premium costs) associated with SB 81.

#### **a. Effect on Cost of Treatment**

Given the very small percentage of children who would benefit from its passage and the low frequency with which general anes-

thetia is used for dental procedures, the proposed mandate is not expected to significantly affect the cost of hospital-based general anesthesia. Further, general anesthesia and hospital facility charges for dental procedures are not priced differently from other, non-dental procedures for which these services are needed. Consequently, additional insurance coverage for these services in dental patients between five and 12 years of age is not expected to affect their cost.

#### **b. Change in Utilization**

The proposed mandate is not expected to result in a significant change in the utilization of hospital-based general anesthesia. As noted earlier, both utilization and unmet demand appears to be low. It is expected that most children who would require such a level of sedation and treatment are already covered under the existing mandate's medical condition provision.

Advocates and opponents of the proposed mandate also both said they expect any increase in utilization to be low. For example, representatives from the Virginia Association of Health Plans, who indicated that they oppose the bill, said they expect that the demand is "rather small." Two medical insurance companies surveyed by the Bureau of Insurance noted that there was "little utilization of [the existing] benefit" for children under age five, and said they could not provide cost estimates of the impact because of such low utilization.

Opponents of the mandate said that they are concerned that the proposed mandate would increase the "elective" use of hospital-based general anesthesia, but provided no estimate as to what extent this is expected to occur if SB 81 is passed. Nevertheless, the existing mandate provides that insurance providers may require prior authorization to verify that the hospital-based general anesthesia is medically necessary, which may address some of these concerns. Also, utilization of the existing mandate is very low, as noted in the *Report of the State Corporation Commission on the Financial Impact of Mandated Health Insurance Benefits and Providers: 2011 Reporting Period*. That report notes that of claim payments made by insurers and health services plans in Virginia in 2011, only 0.02 percent of group certificate claims and 0.04 percent of individual contract claims involved coverage of hospital-based general anesthesia for dental procedures for patients of all ages.

#### **c. Serves as an Alternative**

According to medical experts and the research literature, there are no suitable medical alternatives to general anesthesia for those patients who need to be treated under this level of sedation. As one

anesthesiologist told JLARC staff, “In this stage of medicine, there are no real alternatives to general anesthesia.” Therefore, the primary alternative for patients who are unable to obtain coverage or pay out of pocket may be to forgo treatment.

#### **d. Effect on Providers**

Because a small percentage of children are expected to benefit from its passage and because general anesthesia is widely used for a variety of non-dental procedures, the proposed mandate is not expected to significantly affect the number or types of providers of general anesthesia in hospital settings over the next five years. This is consistent with findings reported in other reviews of legislation in other states proposing to mandate coverage of hospital-based general anesthesia for dental procedures.

#### **e. Administrative and Premium Costs**

Federal health care reform requires all mandates adopted after December 31, 2011, to be paid for by states. If SB 81 were adopted, actuarial analyses would need to be conducted to determine the total added premium cost of the mandate, and this cost would need to be paid for by the State. Regardless, mandating coverage for hospital-based general anesthesia for pediatric patients ages five to 12 is expected to have a minimal effect on both health insurance premium costs and the administrative expenses of insurance companies.

While the cost of hospital-based general anesthesia appears to be high, the low increase in utilization anticipated should not increase premiums by much. The financial impact of changing the age provision on insurance companies’ administrative expenses is also expected to be minimal, as increasing the age of an existing provision is unlikely to require additional staff or changes to administrative practices.

***Administrative Expenses of Insurance Companies.*** Insurance companies do not estimate the impact of proposed mandates on administrative expenses in their responses to the BOI survey. However, additional administrative expenses related to SB 81 are expected to be low, primarily because SB 81 simply changes the age provision of an existing mandate. Further, because SB 81 is expected to have low utilization, administration of these benefits is not expected to require significant additional staff time.

***Premium and Administrative Expenses of Policyholders.*** Estimates of the monthly premium costs provided by medical insurers in Virginia in response to a BOI survey suggest the impact of SB 81 on premiums is likely to be minimal (Table 4). This is consistent with the perspective of representatives of the Virginia Association of

Health Plans, who noted that they expect SB 81 not to result in a measurable impact on premiums.

**Table 4: Estimated Monthly Premium Impact of SB 81 (Per Policyholder Per Month) (n=29)**

	Number of Responses	Lowest Estimate	Highest Estimate
Individual Policyholder (standard)	17	Less than \$0.01	\$0.75
Individual Policyholder (optional)	15	Less than \$0.01	\$0.75
Group Certificate (standard)	23	Less than \$0.01	\$0.75
Group Certificate (optional)	16	Less than \$0.01	\$15.44

Note: Due to inconsistencies in how insurers reported premium impact estimates, where necessary, JLARC staff converted estimates from a per member per month basis to a per policyholder per month basis by assuming the average members per policyholder was 2.4. In addition, one insurer estimated that adding coverage as an optional benefit as part of individual contracts or group certificates would be \$318.50 per policyholder per month. This was excluded from the table because it was between 20 to 420 times higher than the next highest premium impact estimates, making it a significant outlier.

Source: Bureau of Insurance Survey of Insurance Providers, 2012.

For individual plans, premium estimates ranged from less than \$0.01 to \$0.75 per month per policyholder, whether the benefit was included as part of a standard benefit package or offered as part of an optional benefit. One insurer noted that allowing individual certificate holders to opt in to the benefit would cause only those who anticipate needing coverage to purchase the optional benefit, and that such option would raise premiums between \$2 and \$3 per member per month. However, only one of 15 insurers estimated that the costs of adding the proposed mandate as an optional benefit to individual packages would exceed \$0.75 per member per month, and this estimate (\$318.50 increase per member per month) was 420 times higher than the next highest estimate, making it an outlier.

Offered as a part of a standard benefit through a group plan, premium estimates ranged from less than \$0.01 to \$0.75 per member per month. If purchased as an optional benefit as part of a group plan, the increase in premiums ranged from less than \$0.01 to \$15.44 per member per month. Importantly, two out of 16 responses indicated premiums would exceed \$0.75 per member per month if offered as an optional benefit through group insurance plans, and, as above, the other estimate (\$318.50) was an outlier, at 20 times higher than the next highest estimate (\$15.44).

#### **Average Individual Insurance Premiums**

In October 2012, the Virginia Bureau of Insurance reported an average annual health insurance premium (with current mandated benefits) for an individual contract, single coverage, of \$3,335 or approximately \$278 per month.

Based on average individual insurance premiums, an increase of \$0.75 for individual standard coverage would result in a monthly premium increase of 0.003 percent. This is consistent with the premium impact of the existing mandate, which was reported in the *Report of the State Corporation Commission on the Financial Impact of Mandated Health Insurance Benefits and Providers: 2011 Reporting Period* to be 0.15 percent of overall average premium costs for single coverage through both individual contracts and group certificates. Because the existing mandate covers most individuals who should require hospital-based general anesthesia, the impact of SB 81 on premiums is expected to be substantially lower than the reported impact of the existing mandate.

#### **f. Total Cost of Health Care**

The proposed mandate is not expected to significantly affect the total cost of health care because the changes in utilization are expected to be low. This is consistent with findings in the Special Advisory Commission on Mandated Health Benefits' 1999 review of the initial mandate, which provided wider coverage than would the amendments proposed in SB 81. That report noted, "The overall cost of health care is not expected to significantly increase." Similarly, it is consistent with a 2012 State Corporation Commission's report on the financial impacts on health insurance mandates, which notes that premium impacts of the current mandate on overall premiums are very low.

### **BALANCING MEDICAL, SOCIAL, AND FINANCIAL CONSIDERATIONS**

The proposed mandate is consistent with the role of health insurance and may provide access to medically necessary general anesthesia for some patients who are over the age of four but who do not meet the existing mandate's "medical condition" or "severely disabled" provisions. However, it appears that the mandate is attempting to address concerns regarding the safety of office-based general anesthesia for dental procedures and to ensure that patients who should qualify under the existing mandate's "severe disability" and "medical condition" provisions receive coverage. If these are the primary goals, then it appears that assuring an adequate regulatory environment for the use of general anesthesia for dental procedures and clarifying the existing mandate about when coverage is required would more directly address these concerns than the amendments in SB 81. Finally, due to provisions of the 2010 Affordable Care Act, the State will be required to pay all costs associated with the new mandate. As a result, the willingness of the State to pay for these benefits would need to be considered.

### **a. Social Need/ Consistent With Role of Insurance**

Based on the premise that the role of health insurance is to promote public health, encourage the use of preventive care, and to provide protection from catastrophic financial expenses for unexpected illness or injury, the proposed mandate appears consistent with the role of insurance. Specifically, SB 81 may allow some pediatric dental patients to access hospital-based general anesthesia and receive a level of care that may otherwise be unaffordable. If it is determined to be medically necessary, access to preventive or restorative dental treatments under general anesthesia can improve patients' dental health and quality of life, and can reduce the likelihood that these patients will develop more severe, and potentially more costly dental conditions.

However, interviews with medical experts and proponents of the bill suggest that the purpose of the bill is to allow pediatric dental patients to receive general anesthesia in the "safest possible environment," a concern that may be better addressed through regulations governing the administration of general anesthesia for dental procedures, rather than through a health insurance mandate. While SB 81 may facilitate the ability of fully insured pediatric dental patients to receive hospital-based general anesthesia, it does not address the concerns of whether office-based administration of general anesthesia is sufficiently safe. As mentioned previously, in 2011 the General Assembly approved legislation that may address safety concerns.

Also, if the purpose of SB 81 is to address concerns that insurers are incorrectly interpreting the bill's "medical condition" or "severely disabled" provisions (and, as a result, denying otherwise legitimate claims), then amendments to the existing mandate could be made to clarify their respective meanings. According to medical experts, most dental patients between the age of five and 12 who require *hospital-based* general anesthesia should already be covered under the existing mandate, as conditions necessitating treatment in this setting are typically based on non-dental medical conditions. Also, as noted earlier, children between the ages of five and 12 are unlikely to require hospital-based general anesthesia because of their age, making the age range in SB 81 somewhat arbitrary. Instead, medical conditions, such as autism or severe seizures, are more likely to drive the need for treatment in a hospital.

### **b. Need Versus Cost**

Due to low expected utilization rates, the cost of SB 81 is expected to be low. However, according to medical experts, those who require medically necessary general anesthesia need it. Nevertheless, for the reasons discussed above, it is not clear that SB 81 is the best approach to addressing concerns of safety and access asso-



ciated with providing general anesthesia to pediatric dental patients.

Further, as noted earlier, federal health reform requires that states pay for the costs of any mandate proposed after December 31, 2011, so costs resulting from SB 81 would need to be paid by the State to the insurers. Instead of subsidizing the costs of pediatric dental patients accessing general anesthesia in a hospital setting, the State may be able to more directly address safety concerns about providing general anesthesia in a dentist's office through regulations. (As mentioned previously, recent legislation suggests there is increased willingness to use additional regulations to address these concerns.) Ensuring coverage is provided where medically necessary may be best achieved by clarifying the existing mandate.

#### **Mandated Offer**

A mandated offer requires health insurers to offer for purchase the coverage described in the mandate for an additional fee.

#### **c. Mandated Offer**

Similar to a mandated benefit, a mandated offer would not address the concerns of safety in the administration of general anesthesia or ensuring that children who should receive coverage under the "severely disabled" or "medically necessary" provisions of the existing mandate receive it. Also, higher premiums would likely result from optional coverage due to adverse selection, as those who need the otherwise expensive coverage are likely to purchase the coverage, while those who do not need it will not purchase it. Few pediatric dental patients are expected to need or benefit from the provisions of SB 81. As a result, the high costs would be distributed across those who are likely to utilize the benefit.

### **ACKNOWLEDGMENTS**

JLARC staff would like to acknowledge the expertise, assistance, and information provided by staff at the Virginia Commonwealth University and the University of Virginia health systems. In addition, JLARC staff would like to thank the Virginia State Corporation Commission Bureau of Insurance, the Virginia Association of Health Plans, the Virginia Dental Association, the Department of Medical Assistance Services, and the Department of Human Resource Management.



## Statutory Authority for JLARC Evaluation of Proposed Mandated Health Insurance Benefits

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§ 2.2-2503. Special Advisory Commission on Mandated Health Insurance Benefits; membership; terms; meetings; compensation and expenses; staff; chairman's executive summary.

A. The Special Advisory Commission on Mandated Health Insurance Benefits (the Commission) is established as an advisory commission within the meaning of § 2.2-2100, in the executive branch of state government. The purpose of the Commission shall be to advise the Governor and the General Assembly on the social and financial impact of current and proposed mandated benefits and providers, in the manner set forth in this article.

B. The Commission shall consist of 18 members that include six legislative members, 10 nonlegislative citizen members, and two ex officio members as follows: one member of the Senate Committee on Education and Health and one member of the Senate Committee on Commerce and Labor appointed by the Senate Committee on Rules; two members of the House Committee on Health, Welfare and Institutions and two members of the House Committee on Commerce and Labor appointed by the Speaker of the House of Delegates in accordance with the principles of proportional representation contained in the Rules of the House of Delegates; 10 nonlegislative citizen members appointed by the Governor that include one physician, one chief executive officer of a general acute care hospital, one allied health professional, one representative of small business, one representative of a major industry, one expert in the field of medical ethics, two representatives of the accident and health insurance industry, and two nonlegislative citizen members; and the State Commissioner of Health and the State Commissioner of Insurance, or their designees, who shall serve as ex officio nonvoting members.

C. All nonlegislative citizen members shall be appointed for terms of four years. Legislative and ex officio members shall serve terms coincident with their terms of office. All members may be reappointed. However, no House member shall serve more than four consecutive two-year terms, no Senate member shall serve more than two consecutive four-year terms, and no nonlegislative citizen member shall serve more than two consecutive four-year terms. Vacancies occurring other than by expiration of a term shall be filled for the unexpired term. Vacancies shall be filled in the manner as the original appointments. The remainder of any term to which a member is appointed to fill a vacancy shall not constitute a term in determining the member's eligibility for reappointment.

D. The Commission shall meet at the request of the chairman, the majority of the voting members or the Governor. The Commission shall elect a chairman and a vice-chairman, as determined by the membership. A majority of the members of the Commission shall constitute a quorum.

E. Legislative members of the Commission shall receive such compensation as provided in § 30-19.12, and nonlegislative citizen members shall receive such compensation for the performance of their duties as provided in § 2.2-2813. All members shall be reimbursed for all reasonable and necessary expenses incurred in the performance of their duties as provided in §§ 2.2-2813 and 2.2-2825.

Funding for the compensation and costs of expenses of the members shall be provided by the State Corporation Commission.

F. The Bureau of Insurance, the State Health Department, and the Joint Legislative Audit and Review Commission and such other state agencies as may be considered appropriate by the Commission shall provide staff assistance to the Commission. The Joint Legislative Audit and Review Commission shall conduct assessments, analyses, and evaluations of proposed mandated health insurance benefits and mandated providers as provided in subsection D of § 30-58.1, and report its findings with respect to the proposed mandates to the Commission.

G. The chairman of the Commission shall submit to the Governor and the General Assembly an annual executive summary of the interim activity and work of the Commission no later than the first day of each regular session of the General Assembly. The executive summary shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports and shall be posted on the General Assembly's website.

#### § 30-58.1. Powers and duties of Commission.

The Commission shall have the following powers and duties:

A. Make performance reviews of operations of state agencies to ascertain that sums appropriated have been, or are being expended for the purposes for which such appropriations were made and to evaluate the effectiveness of programs in accomplishing legislative intent;

B. Study on a continuing basis the operations, practices and duties of state agencies, as they relate to efficiency in the utilization of space, personnel, equipment and facilities;

C. Make such special studies and reports of the operations and functions of state agencies as it deems appropriate and as may be requested by the General Assembly;

D. Assess, analyze, and evaluate the social and economic costs and benefits of any proposed mandated health insurance benefit or mandated provider, including, but not limited to, the mandate's predicted effect on health care coverage premiums and related costs, net costs or savings to the health care system, and other relevant issues, and report its findings with respect to the proposed mandate to the Special Advisory Commission on Mandated Health Insurance Benefits; and

E. Make such reports on its findings and recommendations at such time and in such manner as the Commission deems proper submitting same to the agencies concerned, to the Governor and to the General Assembly. Such reports as are submitted shall relate to the following matters:

1. Ways in which the agencies may operate more economically and efficiently;
2. Ways in which agencies can provide better services to the Commonwealth and to the people; and
3. Areas in which functions of state agencies are duplicative, overlapping, or failing to accomplish legislative objectives or for any other reason should be redefined or redistributed.

## Proposed Mandated Benefit Requiring Coverage for General Anesthesia and Hospitalization for Pediatric Dental Procedures

### SENATE BILL NO. 81

Offered January 11, 2012

Prefiled January 9, 2012

*A BILL to amend and reenact § 38.2-3418.12 of the Code of Virginia, relating to health insurance coverage for hospitalization and anesthesia for pediatric dental procedures.*

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Patron-- McWaters  
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Referred to Committee on Commerce and Labor  
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Be it enacted by the General Assembly of Virginia:

1. That § 38.2-3418.12 of the Code of Virginia is amended and reenacted as follows:

§ 38.2-3418.12. Coverage for hospitalization and anesthesia for dental procedures.

A. Notwithstanding the provisions of § 38.2-3419, each insurer proposing to issue individual or group accident and sickness insurance policies providing hospital, medical and surgical, or major medical coverage on an expense-incurred basis; each corporation providing individual or group accident and sickness subscription contracts; and each health maintenance organization providing a health care plan for health care services shall provide coverage for medically necessary general anesthesia and hospitalization or facility charges of a facility licensed to provide outpatient surgical procedures for dental care provided to a covered person who is determined by a licensed dentist in consultation with the covered person's treating physician to require general anesthesia and admission to a hospital or outpatient surgery facility to effectively and safely provide dental care and (i) is under the age of ~~five~~ 13, or (ii) is severely disabled, or (iii) has a medical condition and requires admission to a hospital or outpatient surgery facility and general anesthesia for dental care treatment. For purposes of this section, a determination of medical necessity shall include but not be limited to a consideration of whether the age, physical condition or mental condition of the covered person requires the utilization of general anesthesia and the admission to a hospital or outpatient surgery facility to safely provide the underlying dental care.

B. Such insurer, corporation or health maintenance organization may require prior authorization for general anesthesia and hospitalization or surgical facility charges for dental procedures in the same manner that prior authorization is required for other covered benefits.

C. Such insurer, corporation or health maintenance organization shall restrict coverage for general anesthesia expenses to those health care providers who are licensed to provide anesthesia services and shall restrict coverage for facility charges to facilities licensed to provide surgical services.

D. The provisions of this section shall not be construed to require coverage for dental care incident to the coverage provided in this section.

E. The provisions of this section are applicable to any policy, contract or plan delivered, issued for delivery or renewed in this Commonwealth on and after July 1, 2000, *except that the provisions of clause (i) of subsection A that require such coverage to be provided for a covered person whose age is at least five years but less than 13 years shall apply to any policy, contract or plan delivered, issued for delivery, or renewed in the Commonwealth on and after July 1, 2012.*

F. The provisions of this section shall not apply to short-term travel, accident-only, limited or specified disease policies, nor to policies or contracts designed for issuance to persons eligible for coverage under Title XVIII of the Social Security Act, known as Medicare, or any other similar coverage under state or federal governmental plans.



## Evaluation Topic Areas and Criteria for Assessing Proposed Mandated Health Insurance Benefits

Topic Area	Criteria
<b>1. Medical Efficacy</b>	
a. Medical Efficacy of Benefit	The contribution of the benefit to the quality of patient care and the health status of the population, including the results of any clinical research, especially randomized clinical trials, demonstrating the medical efficacy of the treatment or service compared to alternatives or not providing the treatment or service.
b. Medical Effectiveness of Benefit <i>JLARC Criteria*</i>	The contribution of the benefit to patient health based on how well the intervention works under the usual conditions of clinical practice. Medical effectiveness is not based on testing in a rigid, optimal protocol, but rather a more flexible intervention that is often used in broader populations.
c. Medical Efficacy of Provider	If the legislation seeks to mandate coverage of an additional class of practitioners: <ul style="list-style-type: none"> <li>1) The results of any professionally acceptable research, especially randomized clinical trials, demonstrating the medical results achieved by the additional class of practitioners relative to those already covered.</li> <li>2) The methods of the appropriate professional organization to assure clinical proficiency.</li> </ul>
d. Medical Effectiveness of Provider <i>JLARC Criteria*</i>	The contribution of the practitioner to patient health based on how well the practitioner's interventions work under the usual conditions of clinical practice. Medical effectiveness is not based on testing in a rigid, optimal protocol, but rather more flexible interventions that are often used in broader populations.
<b>2. Social Impact</b>	
a. Utilization of Treatment	The extent to which the treatment or service is generally utilized by a significant portion of the population.
b. Availability of Coverage	The extent to which insurance coverage for the treatment or service is already generally available.
c. Availability of Treatment <i>JLARC Criteria*</i>	The extent to which the treatment or service is generally available to residents throughout the state.
d. Availability of Treatment Without Coverage	If coverage is not generally available, the extent to which the lack of coverage results in persons being unable to obtain necessary health care treatments.
e. Financial Hardship	If the coverage is not generally available, the extent to which the lack of coverage results in unreasonable financial hardship on those persons needing treatment.
f. Prevalence/Incidence of Condition	The level of public demand for the treatment or service.
g. Demand for Coverage	The level of public demand and the level of demand from providers for individual or group insurance coverage of the treatment or service.

h. Labor Union Coverage	The level of interest of collective bargaining organizations in negotiating privately for inclusion of this coverage in group contracts.
i. State Agency Findings	Any relevant findings of the state health planning agency or the appropriate health system agency relating to the social impact of the mandated benefit.
j. Public Payer Coverage <i>JLARC Criteria*</i>	The extent to which the benefit is covered by public payers, in particular Medicaid and Medicare.
k. Public Health Impact <i>JLARC Criteria*</i>	Potential public health impacts of mandating the benefit.
<b>3. Financial Impact</b>	
a. Effect on Cost of Treatment	The extent to which the proposed insurance coverage would increase or decrease the cost of treatment of service over the next five years.
b. Change in Utilization	The extent to which the proposed insurance coverage might increase the appropriate or inappropriate use of the treatment or service.
c. Serves as an Alternative	The extent to which the mandated treatment or service might serve as an alternative for more expensive or less expensive treatment or service.
d. Impact on Providers	The extent to which the insurance coverage may affect the number and types of providers of the mandated treatment or service over the next five years.
e. Administrative and Premium Costs	The extent to which insurance coverage might be expected to increase or decrease the administrative expenses of insurance companies and the premium and administrative expenses of policyholders.
f. Total Cost of Health Care	The impact of coverage on the total cost of health care.
<b>4. Effects of Balancing Medical, Social, and Financial Considerations</b>	
a. Social Need/Consistent With Role of Insurance	The extent to which the benefit addresses a medical or a broader social need and whether it is consistent with the role of health insurance.
b. Need Versus Cost	The extent to which the need for coverage outweighs the costs of mandating the benefit for all policyholders.
c. Mandated Option	The extent to which the need for coverage may be solved by mandating the availability of the coverage as an option for policy holders.

\*Denotes additional criteria added by JLARC staff to criteria adopted by the Special Advisory Commission on Mandated Health Insurance Benefits.

Source: Special Advisory Commission on Mandated Health Insurance Benefits and JLARC staff analysis.

## Bibliography

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### PEER-REVIEWED RESEARCH

**Al-Eheideb A, Herman N (2003).** Outcomes of dental procedures performed on children under general anesthesia. *The Journal of Clinical Pediatric Dentistry*, 27(2): 181-184.

**Ashley P, Williams C, Moles D, Parry J (2009).** Pharmacodynamic considerations for moderate and deep sedation. *The Cochrane Collaboration*, 1: 1-22.

**Baens-Ferrer C, Roseman M, Dumas H, Haley S (2005).** Parental perceptions of oral health-related quality of life for children with special needs: Impact of oral rehabilitation under general anesthesia. *Pediatric Dentistry*, 27(2): 137-142.

**Becker D (2012).** Pharmacodynamic considerations for moderate and deep sedation. *Anesthesia Progress*, 59: 28-42.

**Collins C, Everett L (2010).** Challenges in pediatric ambulatory anesthesia: kids are different. *Anesthesia Clinics* 28: 315-328.

**Hicks CG, Jones J, et al. (2012).** Demand in pediatric dentistry for sedation and general anesthesia by dentist anesthesiologist: a survey of directors of dentist anesthesiologist and pediatric dentistry residencies. *Anesthesia Progress*, 59: 3-11.

**Jamieson W, Vargas K (2007).** Recall rates and caries experience of patients undergoing general anesthesia for dental treatment. *Pediatric Dentistry*, 29(3): 253-257.

**Lee J, Roberts M (2003).** Mortality risks associated with pediatric dental care using general anesthesia in a hospital setting. *The Journal of Clinical Pediatric Dentistry*, 27(4): 381-383.

**Lee J, Vann W, Roberts M (2001).** A cost analysis of treating pediatric dental patients using general anesthesia versus conscious sedation. *Anesthesia Progress*, 48: 82-88.

**Roberts M, Milano M, Lee J (2009).** Medical diagnoses of pediatric dental patients treated under general anesthesia: A 19 year review. *The Journal of Clinical Pediatric Dentistry*, 33(4): 343-345.

**White H, Lee J, Rozier, RG (2008).** The effects of general anesthesia legislation on operating room visits by preschool children undergoing dental treatment. *Pediatric Dentistry*, 30(1): 70-74.

**White H, Lee J, Vann W (2003).** Parental evaluation of quality of life measures following pediatric dental treatment using general anesthesia. *Anesthesia Progress*, 50: 105-110.

#### **OTHER RESEARCH**

**American Academy of Pediatric Dentistry (2011).** Guideline on use of anesthesia personnel in the administration of office-based deep sedation/general anesthesia to the pediatric dental patient. Reference manual 33(6): 202-204.

**American Academy of Pediatric Dentistry (2011).** Policy on medically necessary care. Reference manual 33(6): 18-22.

**American Academy of Pediatric Dentistry (2012).** An essential health benefit: general anesthesia for treatment of early childhood caries. May 2012.

**American Dental Association (2007).** Guidelines for the use of sedation and general anesthesia by dentists. 1-13.

**American Society of Anesthesiologists (2009).** Continuum of depth of sedation: definition of general anesthesia and levels of sedation/analgesia.

**Coté J, Wilson S (2006).** Guidelines for monitoring and management of pediatric patients during and after sedation for diagnostic and therapeutic procedures: an update. American Academy of Pediatrics. *Pediatrics* (118)6: 2587-2602.

**Dougherty N (2009).** The dental patient with special needs: a review of indications for treatment under general anesthesia. *Special Care Dentistry*. 29(1): 17-20.

**Lyons R (2009).** Understanding basic behavioral support techniques as an alternative to sedation and general anesthesia. *Special Care Dentistry*. 29(1): 39-50.

**Maine Bureau of Insurance (2001).** Review and evaluation of LD 403, an act to provide health insurance coverage for general anesthesia and associated facility charges for dental procedures for certain vulnerable persons. May 2001.

**Prabhu N, Nunn J, Evans DJ, Girdler NM (2009).** Development of a screening tool to assess the suitability of people with a disability for oral care under sedation or general anesthesia. *Special Care Dentistry*. 28(4): 145-158.

**The Pennsylvania Health Care Cost Containment Council (2000).** Mandated benefits review: Senate Bill 1291, general anesthesia. September 2000.

**The Pew Center on the States (2010).** The cost of delay. February 2010.

**U.S. Bureau of Labor Statistics (2012).** 2011 Consumer Expenditure Survey.

**U.S. Census Bureau (2012).** Household income for states: 2010 and 2011. American Community Survey Brief. September 2012.

**Virginia Board of Dentistry (2012).** Emergency Regulations on Sedation/anesthesia permits (effective 9/14/12 to 9/13/14).

**Virginia Bureau of Insurance (2000).** Report to the Special advisory commission on mandated health insurance benefits: mandated coverage for anesthesia/hospitalization for dental care (review of House Bill 2007).

**Virginia General Assembly (2011).** Senate Bill 1146. Amendment to Virginia Administrative Code § 54.1-2709.5 relating to sedation and anesthesia in dentist offices. Passed in March 2011.

**Virginia General Assembly (2012).** Senate Bill 81. A bill to amend and reenact § 38.2-3418.12 of the *Code of Virginia*, relating to health insurance coverage for hospitalization and anesthesia for pediatric dental procedures.







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