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Standard Practice for Managing Sustainability in Dentistry¹

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1. Scope*

1.1 This practice provides a set of generally recognized activities to govern management of sustainability in dentistry and related dental service practice. It is a management system framework that assists dentists and dental service organizations to enhance their organizational performance and effectiveness. It offers an integrated framework to manage social, economic and environmental aspects of an organization's activities. While this practice is intended to be adopted and used by dental professionals and dental service organizations of any size and specialization, the scope of this practice is relevant to dental service provider organizations' stakeholders as well.

1.2 This practice is intended to be used with pertinent dental office management principles and guidance documents published by professional dental associations.

1.3 This practice should be implemented in alignment with the United Nations 17 Sustainable Development Goals² (SDGs to be achieved by 2030) and the World Dental Federation (FDI) Sustainability in Dentistry³ Policy of August 2017.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

¹ This practice is under the jurisdiction of ASTM Committee E60 on Sustainability and is the direct responsibility of Subcommittee E60.80 on General Sustainability Standards.

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² The United Nations 17 Sustainable Development Goals (<https://sdgs.un.org/goals>, retrieved 17-Mar-2021).

³ World Dental Federation (FDI) Sustainability in Dentistry (adopted by FDI General Assembly August 2017 in Madrid, Spain (<https://www.fdiworlddental.org/sustainability-dentistry>, retrieved 17-Mar-2021).

2. Referenced Documents

2.1 *BSI Standard*:⁴

BS 8900-1:2013 Managing sustainable development of organizations—Guide

3. Terminology

3.1 *Definitions*:

3.1.1 *context of dental service organization, n*—business environment; combination of internal and external factors and conditions that can have an effect on the dental service organization's approach to its dental service, investments, and stakeholder.

3.1.2 *dental professional, n*—individual person who provides and performs dental services within a dental service organization.

3.1.2.1 *Discussion*—Within the context of this practice, dental professional may include dentists, registered dental assistants, licensed oral hygienists, dental technicians, and dental laboratory technicians.

3.1.3 *dental service, n*—intangible output that is the result of at least one activity or procedure necessarily performed at the interface between the dental professional and his/her patient.

3.1.4 *dental service organization, n*—person or group of people holding proper and recognized dental service accreditation, license, or certification that has its own functions with responsibilities, authorities, and relationships to achieve its objectives.

3.1.5 *evidence-based dentistry, n*—approach to oral health care that integrates the most current scientifically relevant evidence, the dentist's clinical experience, and the patient's oral health needs and preferences.

3.1.6 *management system, n*—a set of interrelated policies, processes, and procedures used by an organization to ensure that it can fulfill the tasks required to achieve its objectives.

3.1.7 *policy, n*—the formal expression of intentions and direction of a dental professional or a dental service organization who directs and controls its dental service activities at the highest level.

⁴ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

*A Summary of Changes section appears at the end of this standard

3.1.7.1 *Discussion*—Throughout this practice, “activity” is used to refer collectively to activities, products, and services rendered through or directly by a dental professional or an affiliated dental service provider organization.

3.1.8 *sustainability, n*—degree of sustainable development in the context of a dental professional or dental service organization.

3.1.9 *sustainable development, n*—development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

3.1.9.1 *Discussion*—Sustainable development is about integrating the goals of a high quality of life, health, and prosperity with social justice and maintaining the earth’s capacity to support life in all its diversity. These social, economic, and environmental goals are interdependent and mutually reinforcing. Sustainable development can be treated as a way of expressing the broader expectations of society as a whole.

4. Significance and Use

4.1 The dental industry’s size and scope translate to a significant environmental and social footprint. Moreover, dental professionals and dental service organizations are calling for a consensus-based practical guidance document to support cost-efficient integration of sustainable development principles into their day-to-day management with the goal of achieving carbon neutrality, for example, by reducing CO₂ emissions. Formation of ASTM Subcommittee E60.80.7, and development of this practice recognizes and fulfills this demand.

4.2 To most dentists, it remains unclear what constitutes sustainable dentistry practice in principle. This presents a challenge to incorporating a systematic and pragmatic management framework that identifies, prioritizes, and supports relevant sustainable development issues. Most dental professionals are primarily limited to recognition of environmental impacts or so-called “green practices” or “green dentistry.”

4.3 Given management commitment as the first step, this practice describes procedural feasibility of integrating measurable sustainability performance in daily dental service activities. Preferential treatment is not given to claims of “green” practices. Strategic decision-making needs to be a balanced approach that takes into consideration environmental, social, and economic issues. This practice provides a comprehensive guidance on managing sustainability issues and offers a systematic approach and a management framework that assists dental professionals and dental service organizations to improve overall performance and effectiveness in their products and deliveries.

4.4 This practice offers a concerted approach to managing social, economic, and environmental aspects of dental organizations; stipulates minimum sustainability considerations and requirements; and provides a framework to embed management of issues related to sustainable development into day-to-day decision-making and dental service activities. These management considerations include, but are not limited to, water, air quality, energy, waste management, transportation, responsible procurement, supply chain management, and green buildings. Additional considerations include social responsibility

related to patient, staff, and the community; governance and leadership; and meetings.

4.5 This practice is intended to be adopted and used by dental professionals and dental service organizations of any size and specializations including those being a part of large healthcare service organizations. Further, in the scope of this practice, expectations are addressed that are relevant to dental service organizations’ stakeholders with identification of possible benefits and desirable outcomes of managing for sustainability in dentistry. This approach is to provide a framework for embedding sustainability management in everyday decision-making and is necessarily challenging, provoking, and continually evolving. Effective and continuing stakeholder engagement is essential in sharpening understanding of real issues and broadening buy-in.

4.6 It is recognized that building confidence in processes and sustainable outcomes is an important part of this practice and certain dental service organizations may wish to use some forms of independent verification.

4.7 This practice shall not be viewed in isolation as there are many pertinent helpful texts, conventions, codes, and publications available; it acts as a guide to connect various existing “green” dental practices and services and offers a systemic approach to embedding sustainable development thinking that fits and is readily realizable for dental service organizations of any size or specialization.

5. Dental Service Organization

5.1 *Understanding the Context of a Dental Service Organization:*

5.1.1 The dental service organization shall determine external and internal issues that are relevant to its purpose and affect its ability to achieve the intended outcome(s) of its management system for sustainability in dentistry.

5.1.2 *Understanding the Needs and Expectations of Stakeholders*—The dental service organization shall determine:

5.1.2.1 Stakeholders who are relevant to the management system for sustainability in dentistry;

5.1.2.2 Relevant requirements of these stakeholders; and

5.1.2.3 Applicable legal and other requirements to which the dental service organization subscribes.

5.1.3 *Determining the Scope of the Management System for Sustainability in Dentistry:*

5.1.3.1 The dental service organization shall determine the boundaries and applicability of the management system for sustainability in dentistry to establish its scope. When determining this scope, the dental service organization shall consider:

(1) The external and internal issues referred to in 5.1,

(2) The requirements referred to in 5.2, and

(3) The type and extent of dental services offered.

5.1.3.2 The scope shall be available as documented information.

5.2 *Management System for Sustainability in Dentistry*—The dental service organization shall establish, implement, maintain, and continually improve a management system for