

Introduction: the advent of precision public health and the future of dental public health

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Abstract

On the surface, the precision oral health movement seems to be at odds with dental public health. After all, precision oral health care focuses on the individual patient, where dental public health addresses the oral health needs of populations.

Objective: The American Institute of Dental Public Health (AIDPH) convened a colloquium to discuss the role of dental public health in the future of precision oral health.

Methods: On January 25 and 26, 2018, nine thought leaders from across the US outlined the potential role of public health, and more specifically dental public health, in the world of precision public health. Six of the speakers were invited to share their thoughts in this special edition.

Results: The special issue of the Journal of Public Health Dentistry shares the knowledge and insight provided by the speakers at the colloquium. It is with gratitude for their contribution, as well as, the contribution of the reviewers, organizers of the colloquium, and those in attendance who contributed their collective knowledge that we present this issue. Special thanks to HRSA for their support of this work (D88HP28510).

Dental public health has long focused on traditional oral health promotion and disease prevention strategies as the basis of community oral health programs. While these initiatives are important, grounded in evidence, and a part of our legacy, the specialty and practice of dental public health will evolve in response to emerging technology. The concept of precision public health will have a profound impact on the future of health care and how dental public health will be practiced.

On January 25–26, 2018, the American Institute of Dental Public Health (AIDPH) hosted a colloquium titled “Precision Public Health and the Future of Dental Public Health.” The colloquium was meant to begin a dialogue about how the new precision medicine initiative would fit into the future of dental public health. Public health, and therefore dental public health, was not in the initial discussions in the precision health movement. However, the precision health movement requires a public health emphasis to provide a focus on prevention, promote generalizability, and consider the broader opportunities for implementation.¹ With the opportunity for epidemiological methods to be applied to big data sets, dental public health

specialists are able to look at these “omic” biomarkers and demonstrate generalizable, potential causal relationships between oral disease and certain factors observed in our genome.

Initially, the primary focus of precision medicine was treatment at the individual level. However, novel research advances are exploring a population focus to better determine risk for future disease and disease mechanisms. This new area of discovery expands the opportunity to explore the role of genomics in population health. Shifting the focus from treatment to prevention and from the individual to the population may provide greater opportunities for the expansion of disease prevention strategies. There is a growing interest to look at prevention at a population level to better explain causal relationships and disease prevention strategies. The colloquium and the articles contained in this edition continue the discussion on precision public health and the future of dental public health.

I want to thank the colloquium speakers, many of whom contributed articles for this journal. Speakers included Dr. Stuart Gansky, Dr. Harold Slavkin, Dr. Kimon Divaris, Dr. Jeffrey Ebersole, Dr. Joseph

Finkelstein, Dr. Jennifer Below, Dr. Michael Glick, Ms. Debra Duquette, and Ms. Sarah Meyer. Their contribution to the colloquium and this journal is appreciated and valued.

The AIDPH is governed by an Advisory Board. The collective insight and guidance has been invaluable to the success of this event and the institute. Thank you to Dr. Caswell Evans, Dr. Raul Garcia, Ms. Beverly Isman, Dr. Howard Pollick, and Dr. Karen Yoder for your leadership and counsel. I also want to thank the new members of the Board of Directors who are instrumental in guiding AIDPH forward: Dr. Caswell Evans, Dr. Raul Garcia, Dr. Jeffrey Chaffin, Dr. Steven Geiermann, Ms. Andrea Hight, and Mr. Joshua Houston.

The colloquium provided a venue to discuss this issue in a format that promotes open dialogue and explores potential opportunities for change. Appreciation is extended to our collaborators, the American Association of Public Health Dentistry (AAPHD), especially Executive Director Dr. Frances Kim, and Ms. Sandi Steil. Thanks to Dr. Stuart Gansky who served as a planning consultant to the colloquium. Thanks to the AIDPH team, Ms. Annaliese Cothron, Ms. Magda de la Torre, Dr. Sohini Dhar, Ms. Samantha Farr, and Ms. Elissa Klein.

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Reference

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