RESEARCH BRIEF ■ INFORMING PUBLIC HEALTH

Number 38 ■ June 2025

Oral Medical Care Coordination in the United States: Pillar #3 – Information Exchange

Nicole I. Wanty, MAA, [1] Barbara Z. Park, RDH, MPH, [2] Elizabeth R. Phelps, [1] Kristen D. Holtz, PhD [1]

Authors' Affiliation:

1. KDH Research & Communication

2. National Association of Chronic Disease Directors

Background

Oral medical care coordination seeks to improve public health outcomes by coordinating oral health and primary care (see research brief 34 in this series for more information). While the evidence base on the benefits of oral medical care coordination is robust, less is known about current levels of adoption of coordinated systems in the United States. The University of Iowa conducted the seminal comprehensive literature review on this topic in 2018,[1] and, in 2021, KDHRC undertook a systematic effort to extend and update that research. We examined peer-reviewed articles, state oral health and chronic disease plans, and grey literature on oral medical care integration (see research brief 35 in this series).

From the systematic review we further drilled down on key program characteristics that undergird success, replicability, or sustainability. These components are named as pillars in a framework of change required before oral medical care coordination can be meaningfully implemented on a broad scale. The pillars are **Awareness, Workforce Development and Operations, Information Exchange,** and **Payment**. This brief more deeply describes **Pillar #3: Information Exchange**. Additional briefs describe the other three pillars (see research briefs 36, 37, 39 in this series).

Information exchange (pillar #3) defined

Information Exchange is defined as the sharing and promotion of meaningful and actionable information (e.g., related to patient, practice, research, or population) to enable whole person coordinated care. This pillar emphasizes the importance of using technology and communication

strategies to facilitate seamless information flow between oral health care* and medical providers, improving the coordination and quality of care provided to patients. It also explores spatial organization of care to support information exchange.

Key finding: Coordinated communication through electronic health records

Key Themes

- Technological integration
- Communication mechanisms
- Interoperability challenges
- Standardized protocols
- Best practices

Technological integration, particularly through electronic health records (EHRs), plays a crucial role in facilitating oral medical care coordination. EHRs enable providers to share patient information efficiently, track health outcomes, and provide comprehensive care.[2] The use of EHRs allows for documentation of patient health histories, including oral health information - essential for coordinated care. Coordinated EHRs can prompt health care providers to include oral health history during physical exams, document oral care, and use clinical decision support tools on medical and dental topics. Technological integration ensures that both oral and medical health care providers have access to comprehensive patient data, enabling better-informed clinical decisions.[2]

EHRs can also support effective referrals that include comprehensive evaluation and follow-up and are bidirectional. Oral health care providers delivering coordinated care need a referral base that includes pain management doctors, addiction specialists, psychiatrists, dietitians, and diabetes teams. Likewise, medical providers need a referral base with oral surgeons, dentists, and other oral health care providers.[2]

Effective communication among providers is fundamental to the success of oral medical care coordination to facilitate the referral process, ensure continuity of care, and enhance collaborative decision-making. The literature highlights that providers use EHRs not only for documentation but also for communication through shared oral and medical health notes and health histories, provider messaging, and referral mechanisms.[2,3] Coordinated communication supports timely consultations and follow-ups, which are crucial for comprehensive patient care and optimal health outcomes. Robust EHRs are a tool to achieve this goal.

Key finding: Coordinated communication through spatial organization

Face-to-face communication in co-located clinics dramatically fosters collaboration among providers.[4] Telemedicine and teledentistry have also allowed providers to care for patients and provide oral and medical health care consultations despite physical distance.[5] All coordinated care should ensure that patients receive the necessary follow-up and treatment. EHRs can support communication but shared space is a powerful approach to achieving oral medical care coordination visible to the patients. Indeed, programs that have implemented oral medical care coordination strategies typically aim to create a

* In this brief, the term "oral health care" describes care of the teeth, gums, and soft tissue in the mouth, and "dental care" refers to care of teeth and gums.

more cohesive and collaborative approach to patient care by incorporating oral health assessments and services into medical settings and vice versa via standardized protocols and implementation of best practices.[6] Various settings—including primary care clinics,[7] dental offices,[8] community health centers,[9] federally qualified health centers,[10] and hospital systems[11]—have implemented these programs.

There are two common models for implementing oral medical care coordination:

1. **Physical co-location of oral and medical health care services:** This allows for direct collaboration and communication among providers, which has been shown to improve patient access to comprehensive care and to facilitate timely referrals and consultations.[12]

2. **Interprofessional teams:** This involves oral and medical health care providers working together to address patients' health needs holistically. Teams may consist of any combination of physicians, dentists, dental hygienists, nurse practitioners, physician assistants, and/or community health workers, all collaborating to provide coordinated care. For example, a pediatric or primary care practice might employ a dental hygienist, ensuring that oral health assessments and preventive care are seamlessly coordinated into routine medical visits.[13] Similarly, a dental office might include a physician assistant, providing medical support and addressing systemic health issues that impact oral health.[14]

The outcomes of these implemented oral medical care coordination programs have been positive, demonstrating improvements in patient health outcomes, increased access to preventive services, and enhanced provider and patient satisfaction.[15] Studies have reported reductions in oral health disparities, better management of chronic conditions such as diabetes, and overall improvements in patients' oral and systemic health.[16,17] Coordinated care models have been particularly effective in increasing access to preventive services, such as fluoride varnish applications and oral health screenings, especially in underserved populations.[15,18]

Recommendations

The **Information Exchange** pillar is necessary to facilitate seamless communication and coordination between oral and medical health care providers. The literature highlighted significant barriers related to technological interoperability.[2] Specifically, the lack of interoperability between different EHR systems hinders effective information exchange. Separate EHR systems for oral and medical health prevent seamless communication and coordination. As seen in our discussion of the **Awareness** and **Workforce Development and Operations** pillars (see research briefs 36 and 37 in this series), well-informed providers are better equipped to execute coordinated care practices, continuous education reinforces their understanding and commitment to these practices, and now we can see that seamless communication and coordination will streamline this effort. The need for standardized, interoperable EHR systems is evident, but the development and implementation of such systems face significant logistical and financial challenges.

From a technological standpoint, the coordination of oral and medical health services will demand significant advancements in health information technology. However, the development and implementation of interoperable EHR systems is essential. Technological integration will facilitate comprehensive patient care, streamline care coordination, decrease redundancies, and improve the overall quality of care. Furthermore, data analytics and health IT can provide insights into patient care patterns, helping to identify areas for improvement and optimizing resource allocation.

Beyond collaboration in a virtual space through EHRs, however, the power and impact of shared physical

space for coordinated care cannot be overstated.

To support the **Information Exchange** pillar, we recommend:

- **Coordinated EHR systems** to enable providers to share patient information efficiently, track health outcomes, and provide comprehensive care.
- **Communication mechanisms** to improve communication between oral and medical health care providers through shared oral and medical health care notes, provider messaging, and referral mechanisms within EHR systems.
- **Establishing clear referral networks and employing care coordinators** to bridge communication gaps, streamline the referral process, and ensure that patients receive necessary follow-ups and treatments.
- **Continued exploration and evaluation of co-located oral medical care spaces** where providers and patients can interact in real life to coordinate care.

Conclusion

The coordination of oral and medical health care services has the potential to significantly reshape the landscape of health care delivery. By breaking down traditional barriers, coordinated care models can provide more comprehensive, patient-centered care.

The **Information Exchange** pillar supports the operationalization of knowledge and skills acquired through workforce development programs. Articles described information exchange through use of coordinated EHRs with clinical support tools, consultations via telecommunication, co-location with warm handoffs, and referrals. Information exchange allows health care providers to communicate and work collaboratively in interdisciplinary teams, and to increase patient access to care. Coordinated EHRs were the greatest facilitators to integrated care: They allowed providers to review health histories, use counseling and treatment tools, make referrals and track referral outcomes, communicate with other providers, and track/bill for services. The promise of co-located care is vast and could greatly potentiate information exchange for lasting oral medical care coordination and substantial improvements to the patient care experience.

References

1. McKernan, S. C., Kuthy, R., Tuggle, L., & García, D. T. (2018). *Medical-Dental Integration in Public Health Settings: An Environmental Scan - Medical-Dental Integration in Public Health Settings: An Environm - University of Iowa*. https://doi.org/10.17077/ax7d-a2rg
2. Simon, L., Obadan-Udoh, E., Yansane, A. I., Gharpure, A., Licht, S., Calvo, J., Deschner, J., Damanaki, A., Hackenberg, B., Walji, M., Spallek, H., & Kalenderian, E. (2019). Improving Oral–Systemic Healthcare through the Interoperability of Electronic Medical and Dental Records: An Exploratory Study. *Applied Clinical Informatics*, *10*(3), 367. https://doi.org/10.1055/S-0039-1688832
3. Dolce, M. C., Parker, J. L., Jason, S., Ramos, C. R., & DaSilva, J. D. (2019). The Adaptation and Implementation of a Medical–Dental Electronic Health Record in an Academic Dental Center. *ACI Open*, *03*(01), e37–e43. https://doi.org/10.1055/S-0039-1688935
4. O'Daniel, M., & Rosenstein, A. H. (2008). Professional Communication and Team Collaboration. *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*. https://www.ncbi.nlm.nih.gov/books/NBK2637/
5. Surdu, A., Foia, C. I., Luchian, I., Trifan, D., Budala, D. G., Scutariu, M. M., Ciupilan, C., Puha, B., & Tatarciuc, D. (2025). Telemedicine and Digital Tools in Dentistry: Enhancing Diagnosis and Remote

Patient Care. *Medicina*, *61*(5), 826. https://doi.org/10.3390/MEDICINA61050826
6. Atchison, K. A., Rozier, R. G., & Weintraub, J. A. (2018). Integration of Oral Health and Primary Care: Communication, Coordination and Referral. *NAM Perspectives*, *8*(10). https://doi.org/10.31478/201810E
7. Emami, E., Harnagea, H., Girard, F., Charbonneau, A., Voyer, R., Bedos, C. P., Chartier, M., Wootton, J., & Couturier, Y. (2016). Integration of oral health into primary care: a scoping review protocol. *BMJ Open*, *6*(10), e013807. https://doi.org/10.1136/bmjopen-2016-013807
8. Herman, W. H., Taylor, G. W., Jacobson, J. J., Burke, R., & Brown, M. B. (2015). Screening for prediabetes and type 2 diabetes in dental offices. *Journal of Public Health Dentistry*, *75*(3), 175–182. https://doi.org/10.1111/JPHD.12082
9. Nwando Olayiwola, J., Bodenheimer, T., Dubé, K., Willard-Grace, R., & Grumbach, K. (2014). *Facilitating care integration in Community Health Centers: A conceptual framework and literature review on best practices for integration into the medical neighborhood This work was made possible with generous funding from Blue Shield of California Foundation Executive summary Background*.
10. Sengupta, N., Nanavati, S., Cericola, M., & Simon, L. (2017). Oral health integration into a pediatric practice and coordination of referrals to a colocated dental home at a federally qualified health center. *American Journal of Public Health*, *107*(10), 1627–1629. https://doi.org/10.2105/AJPH.2017.303984,
11. Chipps, E. M., Carr, M., Kearney, R., Macdermott, J., Von Visger, T., Calvitti, K., Vermillion, B., Weber, M. L., Newton, C., St. Clair, J., Harper, D., Yamokoski, T., Belcher, M., Ali, N., Hoet, A. E., Van Balen, J., Holloman, C., & Landers, T. (2016). Outcomes of an Oral Care Protocol in Postmechanically Ventilated Patients. *Worldviews on Evidence-Based Nursing*, *13*(2), 102–111. https://doi.org/10.1111/WVN.12124;WGROUP:STRING:PUBLICATION
12. *Medical-dental integration models: A critical review of the last decade*. (n.d.).
13. Braun, P. A., & Cusick, A. (2016). Collaboration Between Medical Providers and Dental Hygienists in Pediatric Health Care. *Journal of Evidence-Based Dental Practice*, *16*, 59–67. https://doi.org/10.1016/J.JEBDP.2016.01.017
14. Anderson, K. L., Smith, B. S., & Brown, G. (2013). Using an expanded oral health curriculum by practicing physician assistants. *Journal of Physician Assistant Education*, *24*(3), 23–26. https://doi.org/10.1097/01367895-201324030-00004,
15. Arif, U. A., Pitts, E., Farrell, C., Fontana, M., & Kinney, J. A. (2021). Perception and Utilization of Oral Screenings and Fluoride Application in Medical Offices Following the Michigan Caries Prevention Program Training. *The Journal of Dental Hygiene*, *50*(1).
16. Marshall, S., Scrimshaw, E. W., Metcalf, S. S., Greenblatt, A. P., De La Cruz, L., Kunzel, C., & Northridge, M. E. (2015). Evidence From ElderSmile for Diabetes and Hypertension Screening in Oral Health Programs - PubMed. *Journal of the California Dental Association*, *43*(7), 379–387. https://pubmed.ncbi.nlm.nih.gov/26451080/
17. Reeves, S., Perrier, L., Goldman, J., Freeth, D., & Zwarenstein, M. (2013). Interprofessional education: effects on professional practice and healthcare outcomes. *The Cochrane Database of Systematic Reviews*, *2013*(3), CD002213. https://doi.org/10.1002/14651858.CD002213.PUB3
18. Clark, M., Quinonez, R., Bowser, J., & Silk, H. (2017). Curriculum influence on interdisciplinary oral health education and practice. *Journal of Public Health Dentistry*, *77*(3), 272–282. https://doi.org/10.1111/JPHD.12215

Acknowledgements

The National Association of Chronic Disease Directors (NACDD) received funding from the Centers for Disease Control and Prevention (CDC) Division of Oral Health (DOH) for the Medical-Dental Integration (MDI) project (award number 5-NU38OT000286-03, CFDA number 93.421). NACDD contracted with KDH Research & Communication (KDHRC) to assist NACDD.

NICOLE I. WANTY, MAA is a Senior Research Scientist at KDH Research & Communication

BARBARA Z. PARK, RDH, MPH is a Public Health Consultant at National Association of Chronic Disease Directors

ELIZABETH R. PHELPS is a Research Assistant at KDH Research & Communication

KRISTEN D. HOLTZ, PHD is the Founder and President at KDH Research & Communication

KDH RESEARCH & COMMUNICATION

145 15th Street NE
Suite 831
Atlanta, GA 30309

www.kdhrc.com
publicaffairs@kdhrc.com

KDH RESEARCH & COMMUNICATION is a non-partisan, public health, research and communications agency. The goal of the "Informing Public Health" brief series is to disseminate innovative, objective, and timely information to solve public health and other social issues. KDHRC actively contributes to a future when all people can find, understand, and act on information to safeguard the health of themselves, their families, and their communities.