Supplementary

Appendix 1 Meso-level public health meso-level community models

A public health agency may design oral hygiene practices for children to prevent gum disease but rely on partners, such as dentists, to volunteer in delivering these services. To facilitate implementation, the agency provides a platform, mobile dental units (MDUs), which support partners in delivering services and gathering feedback to assess their efficacy (Scenario 3) (77). Similarly, a public health agency may partner with a smoking cessation counseling center and physicians, who refer patients to such services, while the agency supports them by designing the counseling programs. In this case, the partners collectively determine how value is fulfilled and how feedback is gathered (Scenario 4) (78).

Relationship governance

Public health agencies use MDUs to go where parents are, thus reducing the travel constraints parents may face when taking their children to urban dental clinics. The primary metric to track progress is the feedback gathered from parents regarding their concerns or challenges when visiting MDUs. In smoking cessation programs, the public health agency supports the counseling center by sharing cessation guidelines but allows providers and the counseling center to use their own organizational structures to reach and support patients. In this case, the metrics used to track patient adherence are the surveys sent by counseling centers to patients after their session.

Resource orchestration

The public health agency in Scenario 3 engages voluntary dentists who speak Spanish to communicate with Hispanic populations and help parents make decisions regarding their child's participation in dental hygiene treatments, often using personal interactions and intermediaries such as parent advocates. In Scenario 4, decision-making about enrollment in counseling centers is left to patients, who are provided information on the benefits through public media, physician referrals, and web-based promotion tools. In Scenario 3, public health agencies coordinate MDUs to visit locations where parents cannot bring their children to receive oral hygiene services. By contrast, the counseling center in Scenario 4 coordinates a digital platform that uses a mix of technologies (portal, online, fax, phone calls, text messaging) to reach and counsel patients seeking to quit smoking. In Scenario 3, parents representing their children share social concerns or challenges face-to-face with dentists, whereas in Scenario 4, feedback comes from patients engaged in counseling and from partners providing enrollment statistics, both of which are non-clinical.

References

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https://dx.doi.org/10.21037/jhmhp-25-24

Table S1 Public health scenarios

Public Health (PH) Meso-level Community Models	
PH Provider Coordinated/Partner Supported (Scenario 3)	Partner Coordinated/PH Provider Supported (Scenario 4)
PH agency creates hygiene practices and designs mobile platforms to deliver the services and gather feedback. It uses dentists to voluntarily provide hygiene treatment services to children in underserved areas	A smoking cessation center provides counseling services, and providers refer patients to fulfill value. Both gather feedback on patient adherence, but a public health agency provides counseling guidelines

Table S2 Relationship governance of PH community models

Relationship Governance	Provider Coordinated/Partner Supported (Scenario 3)	Partner Coordinated/Provider Supported (Scenarios 4)
Value creation network (help overcome constraints)	Public health agencies help parents overcome their travel constraints by deploying mobile dental units to deliver oral hygiene services	Public health agencies promote the value of quitting using media, as partners cannot easily reach the broad population
Value fulfillment network (share responsibility and accountability)	The dentists use mobile dental units to educate parents on health practices and provide oral hygiene treatment for their children	The counseling center uses its own organizational structure to reach and counsel patients on smoking cessation
Value feedback network (define metrics for patients to control)	The dental staff gathers parents' concerns and challenges and reports on the number of children treated	The counseling centers track patients' completion of the counseling services and collect their feedback

Table S3 Resource orchestration of PH scenarios

Resource orchestration	Platform used to support communication and coordination in Scenarios 3 and 4	
Value creation network (support shared decision making)	Public health agencies use media to promote the value of oral hygiene practices and the location of dental units for parents to visit (S3)	Public health agencies use portal and online communication to share counseling guidelines (S4)
Value fulfillment network (coordinate services across systems)	Patients interact with dental staff to share their concerns or challenges using in-person interaction or surveys (S3)	The counseling center uses a mix of technologies (on-line, fax, phone call) to get referrals, contact patients, and provide counseling services (S4)
Value feedback network (ensure data sharing and governance standards)	The dental staff summarizes reports on children who visited the clinics and shares it with the public health agency (S3)	The counseling center reports on patients who received counseling and/or did not register or complete counseling to the public health agency and the referring physicians (S4)

https://dx.doi.org/10.21037/jhmhp-25-24