

An Assessment of Mobile and Portable Dentistry Programs to Improve Population Oral Health

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Introduction/Background

The volume and variety of mobile and portable oral health programs in the United States has increased in recent years, with school-based oral health programs now commonplace in high-need communities, including rural areas and poorer urban neighborhoods. Increasingly capable portable imaging technologies and treatment modalities have evolved to enable oral health professionals to provide a range of oral health services in public facilities and other community settings with portable equipment or in mobile vans equipped with fixed dental suites. Sponsors of mobile and portable oral health services include not-for-profit community organizations and consortia, community foundations, local and state health departments, federally qualified health centers (FQHCs), oral health professions education programs, and for-profit dental service organizations. Many of these programs are supported by a broad range of community resources and partnerships. The configurations of mobile and portable oral health programs vary, with some providing only assessment, education, and fluoride varnish services, while others are sealant focused or provide a range of preventive and basic restorative services.

Although mobile and portable oral health programs initially focused on children in schools and Head Start programs, many now serve adults and the elderly, especially those in nursing homes or with unstable housing, those with developmental disabilities or other special needs, those with limited transportation, and those who otherwise lack access to private dental practices.

Methods

This qualitative study examined peer-reviewed literature on mobile and portable dentistry and inventoried state-specific regulations governing these programs. Researchers also conducted case studies of 7 mobile and portable dentistry programs across the US to describe their value to underserved populations and to identify the facilitators of and barriers to the provision of effective portable oral health services. Case study participants were selected variously. Some case study participants were identified with the advice of the Mobile Health Clinics Association. Others were found through peer-reviewed literature published on the subject. Many have a national reputation for sustained quality and impact on their target populations. Case study participants were provided with a protocol of questions to guide the case study interview process. The questions in the protocol were used as a guide to major topics of interest. The New York State Department of Health's Institutional Review Board reviewed and approved this study prior to its conduct.

Conclusions and Policy Implications

- 1) Mobile and portable dentistry services appear to mediate structural and financial barriers to oral health services experienced by some populations.
- 2) Mobile programs are remarkably successful in their ability to reach vulnerable populations, including children, elders, people with developmental disabilities, culturally and linguistically diverse populations, people living in poverty, and those living with medical comorbidities.
- 3) Mobile and portable dentistry providers and their sponsors recognized the imperative for partnership with the local oral health services delivery system to enable supplemental care for patients that was not possible or not available in a mobile or portable format.
- 4) Several of the programs either wholly constituted a dental home or were connected to a provider that could offer comprehensive dental services.
- 5) Mobile dental vans are costly both to outfit and to maintain, and revenue from services to the underserved does not fully cover the expense. Many of the programs depended on philanthropy or were harvesting other funds to maintain financial viability.

Findings

The following themes were developed from the information provided by case study participants:

- The scope of services provided in mobile and portable dentistry programs ranges from preventive services to a full complement of dental treatment services.

The case studies revealed that innovative technology, combined with human inspiration, have resulted in the ability of mobile oral health programs to accommodate a range of patient needs. Case study participants universally offered screening, diagnostic, and preventive services; many also offered additional services, including restorations, stainless steel crowns, tooth extractions, and even denture impressions.

- Mobile and portable dentistry programs represent a response by local providers and organizations to unmet need for and/or uneven distribution of oral health services in communities of interest.

Many sponsoring organizations had completed needs assessments in their catchment area. The driving force for most mobile and portable dental services is either to complement a system of care that effectively excludes a population (eg, the Medicaid insured) or to supplement deficient community resources.

- Mobile and portable dentistry programs are an integral part of the dental home.

Many of the programs in the case studies worked with local dental and health care providers, social service agencies, and community organizations with a common interest in and engagement with special populations to coordinate treatment options.

- Mobile and portable dentistry programs are an effective means of integrating oral health services into primary care environments.

Oral health programming is often an ideal bridge to primary medicine and behavioral health services. Several case study participants were working with medical providers and/or social workers in the locations where they were providing oral health services.

- Mobile and portable dentistry programs are supported by various funding sources.

Separate parts of a mobile or portable dentistry program might be funded differently using a mix of retainer fees, reimbursement for services, capitation payments, philanthropy, and grant funding. Diversified funding mechanisms appeared to make organizations more able to absorb deficits in one area of service provision through cost shifting to others, resulting in increased financial stability.

- Mobile and portable service delivery results in the building of strong oral health care teams.

The programs that offered both preventive and dental treatment services were staffed by clinical teams inclusive of the range of dental professionals, along with supportive personnel such as social workers, community health workers, and administrative staff and management. Case study participants were respectful of the need for a broad and inclusive service delivery team to help patients surmount barriers to accessing oral health services.

Conclusions

Mobile and portable dentistry services appear to mediate the structural and financial barriers to access to oral health services experienced by some population groups. While stakeholders sometimes express concern that mobile programs have the potential to act in isolation, it was apparent from these case studies that these programs were integrated into local systems of care. Several of the programs either wholly constituted a dental home or were connected to a provider organization that was able to offer comprehensive dental services. Mobile and portable programs also were adept at appropriately managing risk in their patient populations. These services enabled some low-risk patients to remain in their communities for preventive services, while those in need of intensive dental care were navigated to appropriate, local dental providers. The increasing numbers of mobile and portable providers across the nation suggest increasing recognition of their relevance to improve oral health outcomes in the US population. The benefits of these programs, which include facilitating access to services and improving oral health management for patients, clearly support ongoing integration of mobile and portable modalities into the comprehensive oral health services delivery system.