Trends in the Development of the Dental Service Organization (DSO) Model: Implications for the Oral Health Workforce and Access to Services

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ABSTRACT

Objectives: The configurations of dental service organizations (DSOs) vary; some consist of employees and others comprise independently owned dental practices sharing management services. One objective was to identify and analyze data about DSOs to understand qualitative differences in organizational structures and engagement with clinical providers.

Methods: This study included a survey of the 47 DSO members of the Association of Dental Support Organizations (ADSO) in the US. Data were analyzed using IBM SPSS v.24.

Results: The survey response rate was 68.1%. Most respondents were for-profit organizations (96.8%), operating in 48 states and DC. All (100.0%) provided business management services but fewer than 46% provided clinical care protocols to affiliates. DSOs varied in size from 6,000 to 1,600,000 patients. Dentists mainly affiliated with DSOs as associates (66.7%), owners (66.7%), and employees (53.7%). The mean number of full-time dentists was 213 (range 6 to 1,500). Ninety percent indicated that more than 60% of affiliated dentists were general dentists. More than 70% of DSOs served Medicaid or CHIP insured patients in at least one state; 43.5% of DSOs indicated that all affiliated dentists treated some publicly insured patients.

Conclusions: DSOs described a focus on management services with only limited involvement in any aspect of clinical dentistry. DSOs provided general dentistry, specialty services, or both. Most dentists recruited to DSOs were experienced dentists, coincidental to a strategy of affiliating with private practice dentists. DSOs are leveraging size and market penetration to serve Medicaid or CHIP eligible patients to an appreciable degree.

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OBJECTIVE

- A major objective of the study was to collect data about DSOs to understand qualitative differences in organizational structures, variation in forms of engagement with dental and other clinical providers, and to evaluate the contributions of DSOs to care for traditionally underserved populations, particularly the publicly insured.
- This study was conducted by the Oral Health Workforce Research Center (OHWRC) in cooperation with the Association of Dental Support Organizations (ADSO).
- This work was supported by funding from the Health Resources and Services Administration.

METHODS

The study surveyed the 47 members of ADSO in 2017. ADSO fielded emails to their members requesting study participation. Responses were directed to and resided on a dedicated server at OHWRC.

Survey Instrument

- The final survey instrument consisted of 15 questions about:
  - The structure and location of DSOs and their affiliates
  - The services provided by the DSO
  - The percentage of affiliated dentists who treated patients insured by Medicaid or CHIP
  - The percentage of the patient population that was publicly insured
- The survey used a skip logic design to encourage survey completion and also gather more information where appropriate.

Survey Administration

- The survey was web-based (built on the Qualtrics platform) and was open for approximately one month from May 2017.

RESULTS

In total, 32 of the 47 organizations solicited to participate responded to the survey for a response rate of 68.1%.

DSOs defined their organizations in various ways, suggesting functional differences among similar organizations within the broad class known as “dental support organizations” (87.5%).

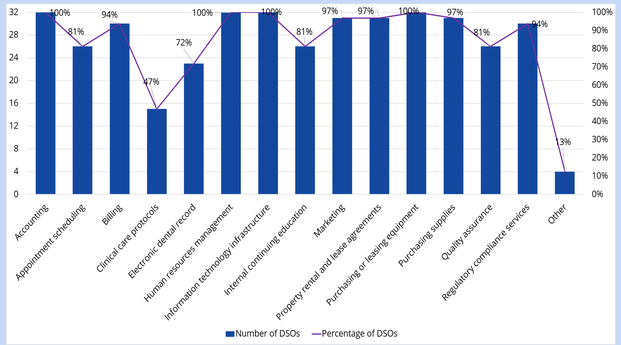
Table 1. Respondents’ Designations of Type of Organization (N=32)

Classification	N	%
Dental management organization	11	34.4%
Dental service organization	15	46.8%
Dental support organization	28	87.5%
Dental management service organization	9	28.1%
Large group practice	7	21.9%
Dental accountable care organization	0	0.0%
Dental health maintenance organization	0	0.0%
Other organization (specify)	0	0.0%

RESULTS (cont.)

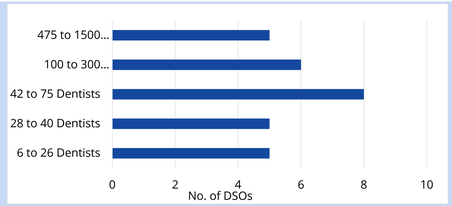
- DSOs were mainly for-profit organizations (96.8%), and a majority were privately held (62.5%).
- DSOs were operating in 48 states and in the District of Columbia. There was no DSO presence among respondent organizations in Alaska and Montana.
- All DSOs (100.0%) provided similar business and management services. However, fewer than three-quarters (71.9%) had a common electronic dental record, and fewer than half (46.9%) provided clinical care protocols to affiliates.

Figure 1. Services Provided to Affiliates by the DSOs (N=31)



- The mean number of full-time (FT) dentists affiliated with a DSO was 213; the number of FT dentists in DSOs ranged from a minimum of 6 to a maximum of 1500. The median number of FT dentists was 60.
- Eighteen (56.3%) of the DSOs indicated they had some part-time dentists (mean=36, median=28).

Figure 2. Number of Full-Time Dentists by Number of DSOs (N=29)



- DSOs recruited some new dental school graduates annually. Sixty percent of survey respondents indicated that between 51% and 100% of new recruits annually were experienced dentists.
- Dentists mainly affiliated with DSOs through direct employment, as an associate, or as an owner.

Table 2. Percentage of New Dentists Recruited To DSOs by Source and by Percentage of DSO Respondents

% of New Dentist Recruits to the DSO, Annually	% of DSO Survey Respondents		
	New Dental School Graduates (N= 27)	New Graduates of Dental Residency Programs (N=23)	Experienced Dentists (N=23)
0 to 10%	44.4%	52.2%	0.0%
11% to 20%	7.5%	26.1%	10.7%
21% to 30%	18.5%	8.7%	10.7%
31% to 40%	7.4%	4.3%	3.6%
41% to 50%	3.7%	4.4%	14.3%
51% to 60%	11.1%	0.0%	17.9%
61% to 70%	7.4%	0.0%	7.1%
71% to 80%	0.0%	4.3%	17.8%
81% to 90%	0.0%	0.0%	14.3%
91% to 100%	0.0%	0.0%	3.6%
Total	100.0%	100.0%	100.0%

RESULTS (cont.)

- 22 DSOs supplied data about the percentage of the patient population that was served by the DSOs that was Medicaid or CHIP insured. More than a third of DSOs indicated that 50% to 95% of the patient population was publicly insured.

Table 3. Percentage of the Total Patient Population That Is Publicly Insured by the Percentage of DSO Survey Respondents

Percentage of Total Patient Population Insured by Medicaid or CHIP	% of DSO Respondents (N=22)
1% to 10%	31.8%
11% to 20%	13.7%
21% to 30%	4.5%
31% to 40%	9.1%
41% to 50%	9.1%
51% to 60%	13.6%
61% to 70%	9.1%
71% to 80%	4.6%
81% to 90%	0.0%
91% to 100%	4.5%
Total	100.0%

- Nearly two-thirds (63.6%) of respondents indicated that more than 60% of the Medicaid insured population served in affiliate practices were children.
- Twenty three of the 32 survey respondents (71.9%) indicated that they served Medicaid or CHIP insured patients in at least one state in which they had dental practice affiliates.
- Sixty-one percent of DSOs that served Medicaid-insured patients indicated that 50% or more of the dentists affiliated with the organization treated some patients insured by Medicaid or CHIP.
- Almost 44.0% indicated that between 91% and 100% of the dentists affiliated with the DSO served some patients who were publicly insured.

CONCLUSIONS

- The accumulated data describe a diverse group of management organizations that provide a common core of business and information services but otherwise vary substantially in size and focus, types pf services offered and patients served.
- DSOs described a focus on management services with only limited involvement in any aspect of clinical dentistry.
- DSOs mainly provided general dentistry services; some provided only specialty services while other provided a mix.
- DSO were actively recruiting workforce, including dentists, DHs, and DAs. DSOs appeared to have some difficulty in recruiting dentists to their organization due to the increasing variety of options available to dentists.
- Reimbursement from public dental benefits is below usual and customary fees making it difficult for smaller scale providers to absorb costs related to dental service provision to the publicly insured. DSOs leverage size and market penetration to the advantage of both their organizational affiliates and the public, making dental services more affordable and readily accessible.

REFERENCE

Langelier M, Wang S, Surdu S, Mertz E, Wides C. *Trends in the Development of the Dental Service Organization Model: Implications for the Oral Health Workforce and Access to Services.* Rensselaer, NY: Oral Health Workforce Research Center, Center for Health Workforce Studies, School of Public Health, SUNY Albany; August 2017.