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## **Improving Oral Health Through Mobile Dentistry**

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Oral health diseases are one of the major challenges faced by the general population. Dental caries and periodontal diseases have higher prevalence in the people living in rural areas. To address such population and to overcome the conventional oral health care strategies, Mobile Dental Van (MDV) was introduced. They are utilized in school-based programs, delivering oral health care to homeless, migrants, specially abled, old and poor individuals. Screening, treatment, health education and motivation all are carried out in the event.

KEYWORDS: Dentistry, Oral Health, Dental Care

#### INTRODUCTION

Mobile Dental Vehicle (MDVs) is assumed to interact with the dental needs of rural as well as urban populations, e.g. by conducting school-based oral health programs, and by providing dental care services to the homeless, migrants, residents of rural or remote areas, people from low socioeconomic communities and many more (Figure 1).



Figure 1. Mobile Dental Van

# MDV'S USE IN ORAL HEALTH DELIVERY SYSTEM

A bus or a truck can be converted into a Mobile Dental Vehicle. Its components are generator compartment, driving compartment, registration counter and waiting area, and a dental surgery room. MDV has a generator set and it supplies 3-phase power to hold up the electricity required by the dental clinic. So, A mobile dental vehicle also has a fresh water tank, a drain water tank, and a recycle water tank. The fresh water is for clinical use. Before the safe disposal of waste water, it is collected in the drain water tank. The recycle water tank constantly circulates and gives rise to a moving current which creates a vacuum environment. It is essential to produce a suction force for the clinical aspirator (Figure 2).



Figure 2. MDV'S Use in Oral Health Delivery System

### USE OF MDV'S FOR DELIVERING DENTAL CARE TO RURAL POPULATION

MDV is considered to be self-reliant as it is able to

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deliver oral health care to the residents of rural areas. It is not necessary for the dentist to stay in the rural areas all the time to deliver MDV services, therefore practitioners urban-based dental can work temporarily, particularly who are taking advanced training in public health dentistry. MDV has proved to be of great benefit to the people living in outskirts of the city because of its mobile nature. For sparsely populated areas, multiple visits are arranged periodically. An MDV has a wheelchair-friendly design which makes it easier to treat those with disabilities and for people who can not commute long distance [Figure 3 (a) & (b)].



Figure 3 (a). Use Of MDV's For Delivering Dental Care to Rural Population

#### **MERITS OF MDV**

MDV has proved to be of great advantage to students of Public health dentistry as it is a dental clinic with four wheel, which makes it auspicious to deliver dental care to the residents of rural areas.

#### **DE-MERITS OF MDV**

The major disadvantage of an MDV is that it demands high maintenance. For the preservation of the vehicle a specialised team is needed. The team must have an accurate understanding of vehicle maintenance, building facilities, mechanics, hydraulics and equipment knowledge for the dental visit to run smoothly. One of the major disadvantage of MDVs is that complex and advanced facilities are not available, making it difficult to treat patients with compromised health. MDV services are highly affected by geographic and climatic conditions.



**Figure 3 (b).** Use Of MDV's For Delivering Dental Care to Rural Population

#### SOME OTHER MERITS OF USING MDV'S:

The treatments done in such MDV's cost less when compared with the treatments done in the hospital dental clinic. Hence, this economical service proves favourable to poor people who cannot afford to seek treatment in ordinary dental clinics. It not only satisfies rural population but also helps impart great amount of exposure to Dental Professionals. Maximum dentists wants to work in urban areas as their knowledge on rural dental care is quite limited. It provides a link between dental professionals and population of rural areas that provides dental professionals with a suitable and distinctive opportunity to engage in public health services that limits on the poor resources of rural areas. It develops affinity with the people living in rural section that have much more oral health needs. Hence, due to this MDV service, dentists are better engaged with the population of rural areas. So, this MDV program is an accommodation that provides benefit to both the residents of rural section and the participating dental staff.

#### CONCLUSION

There are different perspectives of residents of urban and rural areas about the oral health. Hence, the use of MDV service can be an encouraging strategy to provide dental care to the population of rural areas with their high portability, self-sustaining and economical nature.

#### REFERENCES

1. Kassebaum N, Smith A, Bernabé E, Fleming T, Reynolds A, Vos T, et al. Collaborators GOH Global, regional, and national prevalence, incidence, and disability-adjusted life years for oral conditions for 195 countries, 1990–2015: A systematic analysis for the global burden of diseases, injuries, and risk factors. J Dent Res. 2017;96:380–7. https://doi.org/10.1177/0022034517693566.

2. Lee HH, Lewis CW, Saltzman B, Starks H. Visiting the emergency department for dental problems: Trends in utilization, 2001 to 2008. Am J Public Health. 2012;102:e77–e83.

https://doi.org/10.2105/AJPH.2012.300965.

3. Gökalp S, Guciz Dogan B, Tekçiçek M, Berberoglu A, Ünlüer Ş. National survey of oral health status of children and adults in Turkey. Community Dent. Health. 2010;27:12.

4. Ogunbodede EO, Kida IA, Madjapa H, Amedari M, Ehizele A, Mutave R, et al. Oral health inequalities between rural and urban populations of the African and Middle East region. Adv Dent Res. 2015;27:18–25. https://doi.org/10.1177/0022034515575538.

5. Wong M, Lo E, Schwarz E, Zhang H. Oral health status and oral health behaviors in Chinese children. J Dent Res. 2001;80:1459–65. https://doi.org/10.1177/00220345010800051501.

6. Yin W, Yang YM, Chen H, Li X, Wang Z, Cheng L, et al. Oral health status in Sichuan province: Findings from the oral health survey of Sichuan, 2015–2016. Int J Oral Sci. 2017;9:10. https://doi.org/10.1038/ijos.2017.6.

7. Varenne B., Petersen P.E., Ouattara S. Oral health status of children and adults in urban and rural areas of Burkina Faso, Africa. Int Dent J. 2004;54:83–9. https://doi.org/10.1111/j.1875-595X.2004.tb00260.x.

8. Gaber A, Galarneau C, Feine JS, Emami E. Ruralurban disparity in oral health-related quality of life. Community Dent Oral Epidemiol. 2018;46:132–4 https://doi.org/10.1111/cdoe.12344.

9. Petersen PE. The world oral health report 2003: Continuous improvement of oral health in the 21st century—The approach of the who global oral health programme. Community Dent Oral Epidemiol. 2003;31:3-24. https://doi.org/10.1046/j..2003.com122.x.

10. Varenne B, Petersen PE, Ouattara S. Oral health behaviour of children and adults in urban and rural areas of Burkina Faso, Africa. Int Dent J. 2006;56:61–70. https://doi.org/10.1111/j.1875-595X.2006.tb00075.x.

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