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## **Documented Dental Attendance Pattern by Number, Age and Sex in a General Hospital in Nigeria: A Ten-year Retrospective Study**

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**Abstract:** The objective of the present study was to determine attendance pattern as a factor influencing service pattern. Retrospective study and the study setting was the general hospital in Edo State Nigeria; 33,331 patients attendance in a non-confidential retrospective cumulative record of the General Hospital practice register. Patient and visit factors are known to influence service pattern and appropriateness of care delivery. Wide range of factors in addition to oral health, contribute to variation in service provision of which age and gender as part of patients demography are major factors. The findings from this study serve as a population estimate both in volume and gender and in addition provide an empirical guide for a planned, high, medium and low level oral health intervention for oral health policy making. Results therefore revealed peak attendance in 1995-1996; 21-30 year old as the dominant subscribers 17345 (52.04%); gender issues showed females 18687 (56.06%) the dominant subscribers.

**Key words:** Dental, attendance, pattern, number, age, sex

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### **INTRODUCTION**

Patient and visit factors are known to influence service pattern and appropriateness of care delivered (Brennan and Spencer, 2002). The objective of this study therefore is to determine attendance pattern as a factor influencing service pattern. While dentists are providing similar number of services annually, the content of their work load change to include less emphasis on removal and replacement of teeth. There is more effort through documented attendance statistics to maintain and retain the natural dentition. Brennan and Spencer evaluated the influence of visit and oral health factors on dental service provision. Their findings showed that a wide range of factors, in addition to oral health, contribute to variation in service provision of which age and gender as part of patients demography are major factors (Brennan and Spencer, 2003). Linden (1992) corroborated this in his children studies in Ireland. Attendance therefore by number and gender is an expression of demand for oral healthcare in a given location of service. In Bradshaw's taxonomy of needs, demand is an expressed need (i.e., what the patient complained about) which is a function of attendance. While normative need is a desirable treatment for the patient by the healthcare provider (Bradshaw, 1985). This unbroken chain constitute the healthcare outcome that shapes dominantly healthcare policies.

### **MATERIALS AND METHODS**

The study setting is the General Hospital Benin City, located centrally in the municipality, with good access road and other infrastructural facilities. It is a mono-functional setting with areas of different clinical care not designated as departments. A non-confidential retrospective cumulative data from the general practice register for years 1992-2002 was studied for number of attendance, age and gender. The relevant information gathered from the hospital record were used to characterize the patients' demography.

### **RESULTS**

Documented dental clinic patients attendance for the study period (1992-2002) for the General Hospital Benin City was 33,331 (Table 1), with yearly peak in 1995-1996 of 4326 (12.98%). Table 2 showed patients' age distribution patients' sex distribution for the study period and percentage male/female.

### **DISCUSSION**

In this study attendance was 33,331. This represents demand expressed as felt oral health need. This centre witnessed good turnout within the study period because of good location and infrastructure. It is central within

**Table 1: Central Hospital Benin city total yearly attendance 1992-2002**

S/N	Period	Total yearly attendance
1	1992-1993	3462
2	1993-1994	3107
3	1994-1995	3759
4	1995-1996	4326
5	1996-1997	3904
6	1997-1998	3465
7	1998-1999	3804
8	1999-2000	2580
9	2000-2001	2520
10	2001-2002	2404
Total	10 years	33,331

**Table 2: Patient age distribution for the study period and % age General Hospital Benin city**

S/N	Age in years	No. of patients	(%)
1	0-1	30	0.09
2	1-10	983	2.95
3	11-20	5644	16.93
4	21-30	17345	52.04
5	31-40	2189	6.57
6	41-50	4323	12.97
7	51-60	838	2.51
8	61-70	1052	3.16
9	71-80	684	2.05
10	81-100	226	0.68
11	91-100	17	0.050
Total		33,331	100.0%

**Table 3: Patients' sex distribution for the study period and % male/female, General Hospital Benin city**

S/N	Age in years	No. of patients			Male (%)	Female (%)
			Male	Female		
1	0-1	30	14	16	46.67	53.33
2	1-10	983	394	589	40.00	60.00
3	11-20	5644	3341	2303	59.20	40.80
4	21-30	17345	5249	12096	30.26	69.74
5	31-40	2189	1172	1017	53.54	46.46
6	41-50	4323	3320	1003	76.80	23.20
7	51-60	838	439	399	52.39	47.61
8	61-70	1052	342	710	32.51	67.49
9	71-80	684	292	392	42.70	57.30
10	81-90	226	74	152	32.74	67.26
11	91-100	17	7	10	41.12	58.82
Total		33331	14644	18687		
Mean		29.95	31.18	28.99		
Total (%) male and female			43.94	56.06		

Benin municipality, thus attracting patients from other peripheral towns in the state. Regular dental care attendance is known to have significant positive impact on dental health outcome (Richards and Ameen, 2002) and more importantly the asymptomatic dental attendance (Hawley *et al.*, 1996). The documented dental clinic patients attendance for the study period revealed peak attendance in 1995-1996 and relative uniformity in attendance. Patients' age distribution showed between ages 21-30 years as the dominant subscribers 17345 (52.04%) with a mean value of 29.95 (Table 2). This age

group falls, within the late secondary and tertiary school years, that are amenable to well structured oral health information geared towards curative and preventive approaches. Again regular attendance bears direct relationship with oral health information empowerments more so when the patient is encouraged to imbibe asymptomatic attendance. This group is symbolic in the drive for an improved oral healthcare outcome especially in the developing countries. As they represent the most vibrant group whose body of knowledge and opinion are respected in the rural communities. Patients' gender distribution within the study period showed females as the most dominant oral health subscribers 18687 (56.06%) with a mean value of 28.99, as against male subscription of 14644 (43.94%) with a mean value of 31.18 (Table 3). In traditional African setting mothers double in their domestic role of oral healthcare educators and informers to their growing children. Therefore, increasing attendance by female will enhance their oral health knowledge base, which will have a multiplier effect on their domestic role. This attendance documentation, characterization and evaluation will shape the pattern of dental care delivery for oral health policy formulation and assist in enhancing the national schedule for dental services (Kieffer and Groenereld, 1995). The statistical and demographic information by volume and gender will provide the dental services providers an empirical base upon which hypotheses on future service provision can be tested, as the information contained here in this study revealed the differences in gender distribution and volume of service provided in this general hospital setting.

### CONCLUSION AND RECOMMENDATION

This study provides a population estimate in volume and gender as a guide for a planned high, medium and low level oral health interventions for oral health policy making; though a limited study within Edo municipality. A wider study of this nature is recommended at the national level as an empirical base for oral healthcare policy formulation.

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