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Dental care risk management provided by social protection institutions of Senegal

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ABSTRACT

Aims: The aim of study was to analyze the risk management of dental care coverage by the social protection institutions in Senegal, located in West Africa. Methods: The study was descriptive, extensive and focused on all active social protection institutions in Senegal since 2005. Results: Our results showed that, in spite of the implementation of risk management mechanisms such as patient co-payment (97% of institutions), coverage ceiling (26%) and dentist council (15%), healthcare expenditure still growing. Conclusion: For the containment of oral care expenditure increase, it is important to raise awareness among social protection institutions for a greater use of existing risk management mechanisms.

Keywords: Dental care, Risks management, Senegal, Social protection institutions

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INTRODUCTION

After independence, health care coverage has evolved a great deal in African countries. In 1970s in Senegal, country located in West Africa, however; the State's disengagement from social sectors, in particular, healthcare, due to the economic downturn has dealt a blow to the free health care coverage inherited from the settlers' system. Facing a soaring of prices in the provision of care and drug prescriptions along with the population's financial restrictions to ensure direct and immediate payment of health care, authorities have developed strategies implementing a number of social protection institutions, such as The Disease Prevention Institute (DPI), of business or interprofessional and mutual for care coverage [1–3].

The implemented policies have hugely improved the health care system though without eradicating the

problem due to a still growing cost of most provided care services such as oral care; a burden to those institutions' budget [4, 5]. It is then imperative for them to contain the moral risk through a well-managed oral care coverage. Moral risk indicates an insured person's behavior to use health care services more reasonably than if non-assured, due to the elimination or reduction of financial barrier towards health services [6, 7].

MATERIALS AND METHODS

The data was collected from January 10, 2013 to April 30, 2013 by mail in Dakar where 90% of social protection institutions are located. It was a descriptive and extensive analysis and has covered all social protection institutions. Requirements to be included in the analysis were to be an active institution since, 2005, date of the first established national health accounts in Senegal.

Data about the institutions was gathered via correspondences to the leadership of the Senegalese Disease Prevention Institute Federation and the United Health Mutual. Upon receipt, self-administered questionnaires were sent to the managers for a lock-up period of one month. The study targeted the offered services, the method of coverage with co-payments (i.e. part of the responsibility of the recipient), the availability or not of a coverage ceiling or of a dentist council to prevent potential abuse of care services from both providers and patients.

CSPRO and SPSS software were used to process the data collected.

RESULTS

Specimen size of the 220 self-administered questionnaires, 127 were received with only 40 with usable.

Demographic profile participants

The study participants were divided as follows: 13 Business-based institutions, 12 interprofessional based-institutions, and 15 health mutual based-institutions.

Services offered by institutions

Our study has shown that 100% of interprofessional-based institutions provide full coverage for conservatives and extractions care and 27.6% respectively for prostheses and orthodontic care. The same goes for Business-based institutions for conservative and extractions care, they provide full coverage, and 33.7% of prostheses and 72.3% of orthodontic care. When it comes to the community-based institution, however; our study has shown that none of them provide prosthesis or orthodontics care coverage while offering 100% of coverage for extractions care and 93.4% for conservative care. The overall institutions' care coverage is (100%) of extractions care, 97.9% of conservative care, 42.4% of orthodontic care and 22% of prostheses care (Table 1).

Care coverage

Processing our findings, we realize that all interprofessional and community-based institutions (100%) and up to 94.05% of business-based institutions provide partial care coverage, thus making it only 0.03% overall institutions to provide full coverage (Figure 1).

Ceiling of treatment

Analyzing our findings regarding the coverage ceiling, it has shown that only 15.66% of overall institutions have it with 20.51% for the interprofessional-based institutions, 16.84% for the business-based and 39.35% for the community-based institutions (Figure 2).

Dentist council

When conducting the survey for our study, we came to the fact that 41.38% of interprofessional-based institutions and 16.84% of business-based institutions utilize dentist council contrary to the community based institution where none has it. Thus 84.81% of overall institutions have it (Figure 3).

Table 1: Proportion of institutions according to the type of dental care.

Type of dental treatment	Institutions			
	Interprofessional-Based institutions	Business-Based Institutions	Community-Based Institutions	Total
Conservative Treatment	100%	100%	93,4%	97,9%
Extractions	100%	100%	100%	100.0%
Prosthesis	27.6%	33.7%	0.0%	22.0%
Orthodontics	27.6%	72.3%	0.0%	42.4%

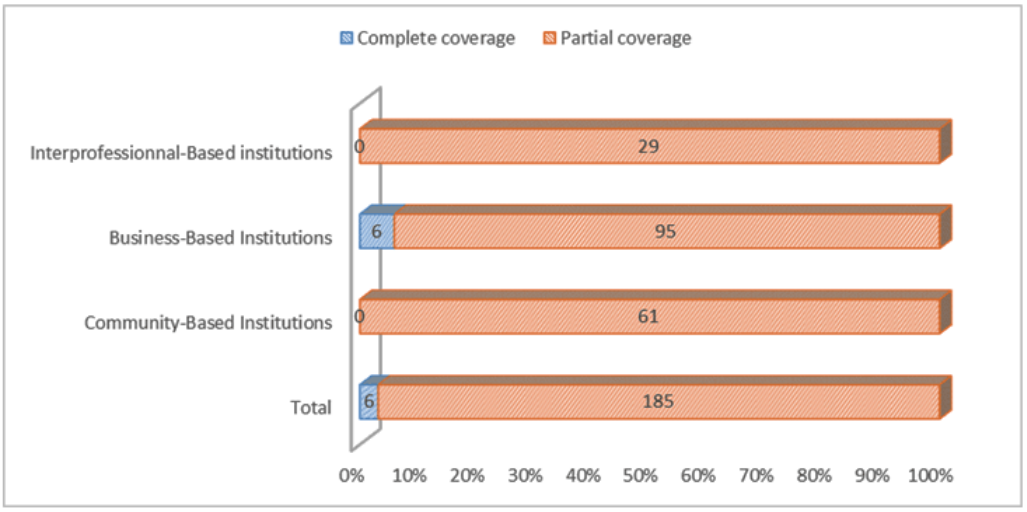

Figure 1: Proportion of institutions covering the treatment.

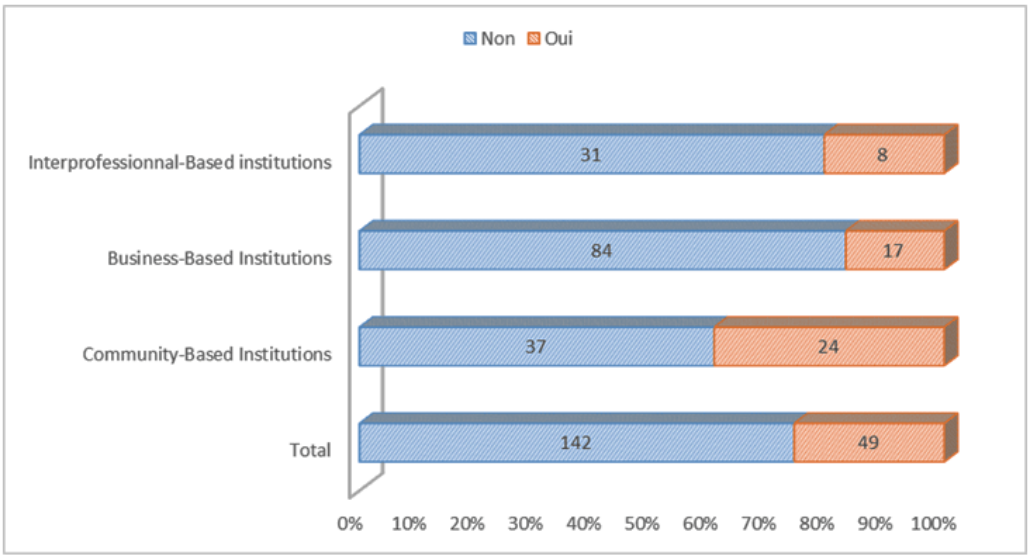

Figure 2: Proportion of institutions with or without dental treatment ceiling.

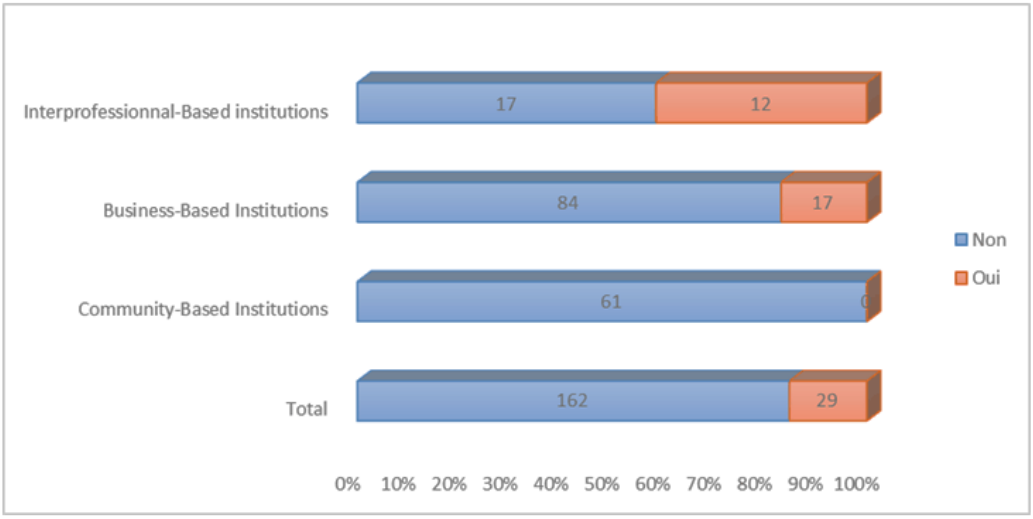

Figure 3: Proportion of institutions with or without a dentist consultant.

DISCUSSION

Study boundaries

The amount of information received, despite the forged relationship with SPS's managers, denote the non-reliability of auto-administrated questionnaires. Thus, we think a meeting-based survey would maximize the collect of information. However, because answers to some questions require access to the archives, it was not a proper method. Nevertheless, the survey would provide with better results if the targeted institutions' managers were made aware of their potential impact on the improvement of people's oral care. We think that the results from the surveyed institutions (business, interprofessional and community-based) show the barriers confronted by the involved businesses, interprofessional and community-based institutions.

Service offered

The high percentages (100%) of extractions and conservative care coverage are probably due to the fact they are low cost and are being the most sought care in the private as well as the public dental services. Several studies have confirmed this fact, including Lo et al. studies [3, 8].

The orthodontic coverage is very high among interprofessional-based institutions (72.3%), relatively low in those of businesses (27.6%) and non-existent in community-based institutions (Table 1). Such disproportion might be due to the fact that dentures coverage is more about aesthetic, which requires big resources, than functionality. Both prosthetic and orthodontic care are less important among institutions (22% and 42.4%) compare to another type of care. In fact, larger is an insurance structure, more shared is the risk and less costly it becomes for everyone.

The inequalities in dental care coverage along with the renouncement of less-favored to the health care due to financial restrictions are blocking factors to prosthetic and orthodontic coverage by institutions.

Dentist Board

In our study, we found out that 100% of mutual do not utilize council dentist due to their limited resources which does not allow them to support additional payroll beside the administrative personal's. However, 41.38% of inter-professional-based institutions which have higher budget use the board dentist. Thus these results show that the use of the board by institutions depends on their financial capacity.

Risk Management

The ability of the insurance system's leadership to use techniques to contain the impact of risks they are facing determines their viability. Mainly co-payment and coverage ceiling were the methods of controlling used by institutions for risk containment.

The implemented co-payment seems to be an adequate method of control and does not incur additional costs for the institution. Thus, 97% of surveyed institutions have used it including 100% of community-based and interprofessional institutions (Figure 1). According to a review the patient co-payment is a double standard as it is an efficient means to contain moral risk but might contribute, when high, to limit the accessibility of treatment as well; contrary to social protection policy [1].

The medical coverage ceiling appears to be efficient in containing potential frauds and abuses and does not incur additional costs. Thus, it is mainly used by mutual due to their financial restrictions (49%) (Figure 2) and 75% have used it according to a survey conducted by Lo et al. [3].

The dentist council enables the control of compliance with therapeutic schemes to prevent any abuse in care services by both providers and consumers. However, such method entails additional cost to the institutions, which makes it not accessible by community-based institutions due to their financial restrictions. Having said that, as a point of order, a protocol of treatment by compelling services provider to prescribe functional treatment and generic drugs were adopted. Nevertheless, the strategy became a burden among mutual when some of them were refused a reimbursement of their due [3, 8].

The results show that most institutions (85%) lack means to evaluate the quality of care provided and application management of current pricing (Figure 3). That's why we think it is necessary to regulate the system of the convention of care providers. Such system should incite them to accept to conform to the norms of quality, the protocols of evaluation, and to the current pricing defined by the Ministry of Health in collaboration with providers.

It should be noted that even if these mechanisms reduce the moral risk, they can be a discouraging factor to insured patients who postpone their treatments. Such action can contribute to a high care cost due to the aggravation of disease [8–11].

CONCLUSION

Implemented methods such as the co-payment, coverage ceiling and the dentist council by social protection institutions in Senegal might allow containing the hike of dental care expenditure. Thus, besides those strategies, communication and information of health professionals, and patients about their rights and duties is essential. However, we must make efforts to end abuses and deviance noticed on both the sides.

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Author Contributions

Cheikh Mouhamadou Mbacke Lo – Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published
Mbathio Diop – Acquisition of data, analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published
Aida Kanouté – Acquisition of data, analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published
Massamba Diouf – Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published
Daouda Cissé – Acquisition of data, analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published
Daouda Faye – Acquisition of data, analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published
Yandé Baldé – Acquisition of data, analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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