

# **МЕДИКО-ПРОФИЛАКТИЧЕСКИЕ ДИСЦИПЛИНЫ**

## **DEVELOPMENT OF PRIMARY HEALTH CARE IN ALGERIA**

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The human right to health means that health services should be available to everyone. According to the literature data, the availability of medical services is associated with the level and quality of primary health care. As it was announced in 1978 at WHO conference — organization of primary health care is a key aspect of the health system.

For the assessment of the health situation in Algeria, we analyzed data from the literature, the WHO data, and the results of studies in different institutions.

Based on the WHO guidelines, Algeria had gradually and constantly developed primary health care facilities and trained medical staff. The assessment of progress is made on the health criteria of the population and the health development in Algeria: the crude death rate and infant mortality rate, population per medical institution and per doctor

Health facilities at the primary health care system are represented by the polyclinics and the care units. The number of primary health facilities had grown rapidly during the last forty years, from 1402 to 5484 care units and from 106 to 1627 polyclinics; the number of available hospital's beds has evolved from 43404 to 63212 beds, while the population increased from 16,370,000 to 39,500,000 inhabitants. During the same period, the number of inhabitants per clinic increased from 140,000 to 20,000 people. One care unit serves about 7,000 people, the number of inhabitants per doctor decreased from 6000 to 600 inhabitants. Population health criteria shows the decline in infant mortality from 80 per 1,000 in 1984 to 46.8 per 1,000 in 1990 due to special programs for maternal and child health care and the expanded vaccination. The average life expectancy of the inhabitants of Algeria in 2014 reached the level of 77.2 years.

**Key words:** primary health care; health facilities; health criteria; crude death rate; infant mortality rate; life expectancy at birth; polyclinic

Primary health care became in 1978 one of the key policies of WHO with the adoption of the Declaration of Alma-Ata, but there are differences in how to apply the WHO guidelines because each country is characterized by its own economic conditions and sociocultural and political characteristics. We are interested in our article to highlight primary health care in Algeria.

“Algeria is a vast country, where, in a very short time, we can move from the coast to the desert, passing through the mountainous regions and the highlands, with everything that implies as a difference in the morphology of the area, in the type of climate, and everything that entails as differential behaviour of individuals and groups” [2].

Just after independence, Algeria had less than 500 physicians to cover a population of 10.5 million. Health indicators at that time were characterized by high infant mortality 180 per thousand, a life expectancy was less than 50 years and major endemic communicable diseases, a magnitude unequalled, responsible for major causes of death and disability [1; 11].

In 1974 in Algeria free care in public health facilities to enable the majority of the population to enjoy the benefits of prevention and care of modern medicine was introduced. There was the creation of the health sector that around a hospital with a network of extra-hospital facilities (clinics, health centers, care units) supports the health needs of a population. Through those primary health care facilities, the population has access to general medical consultations, and sometimes specialized, be oriented in case of necessity to a hospital, finally, enjoy free all preventive care (vaccinations, contraception) [5].

In Algeria, despite tangible success in improving the population's health status, and where life expectancy exceeds 70 years, the health system is completely outdated and unsuited to the current needs of the Algerian population:

- ◆ preventive medicine is neglected;
- ◆ there are disparities in primary health care in different parts of the country;
- ◆ gaps in services are often due to a malfunction of the organization of the health system, even when the necessary inputs are provided and sufficient financial support;
- ◆ basic health facilities exist but sometimes without qualified medical staff.

**Overview of the organisation of the Algerian primary health care and health criteria:** after an analysis of different bibliographic resources and official data from the Algerian Ministry of Health and the Algerian statistical office, we present some criteria that show the evolution of the primary care system in Algeria.

The number of primary health facilities had grown rapidly during the last forty years, from 1402 to 2574 care units and from 106 to 1627 polyclinics; the number of available hospital's beds has evolved from 43404 to 63212 beds, while the population increased from 16,370,000 to 39,500,000 inhabitants. This development has undergone some changes. During the years 1980 to 1986 there was a massive importation of medical technology with rapid expansion of the supply of care [7]. The beginning of the 90s had been marked by the priority given to the construction of hospitals at the expense of small infrastructure (polyclinics and health centers) and therefore it had been given priority to the curative system at the expense of the preventive system [8] (tab. 1).

As we can see in the board above the number of health facilities has increased very rapidly especially for polyclinics and treatment room. This increase is much more marked these last ten years, with over 200% of new polyclinics. The number of treatment rooms followed a continuous ascent but there is a slight decline in the 90s for reasons of security troubles and after improvement of the situation the curve resumed its ascent. The number of hospitals has also increased but this increase was only around 8% over the last twenty years [12].

Table 1

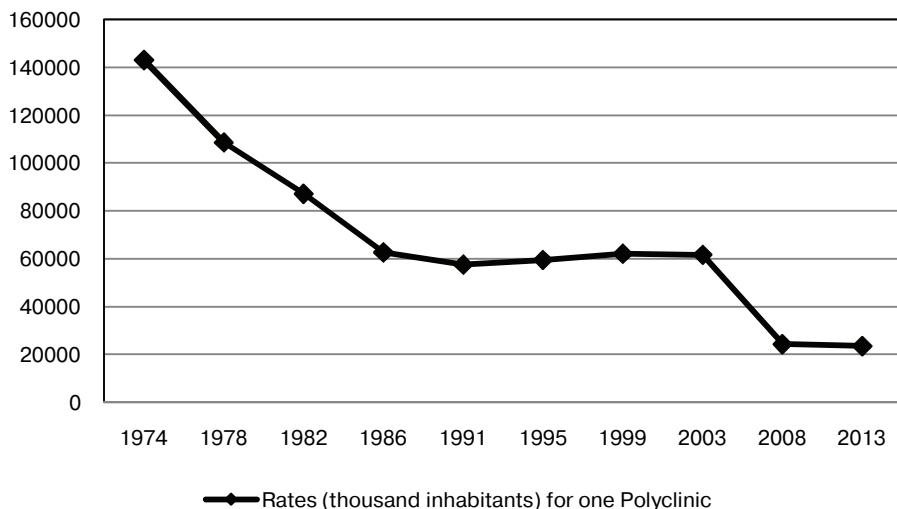
**Evolution of health facilities in Algeria**

Health facilities	Year									
	1974	1978	1982	1986	1991	1995	1999	2003	2008	2013
Hospitals	143	185	196	238	263	251	261	275	264	283
Polyclinics	106	162	228	359	445	471	482	516	1 419	1 627
Care units	1 402	1 364	1 660	2 574	3 618	4 174	3 851	4 412	5 077	5 484
Total	1 651	1 711	2 084	3 171	4 326	4 896	4 594	5 203	6 760	7 394

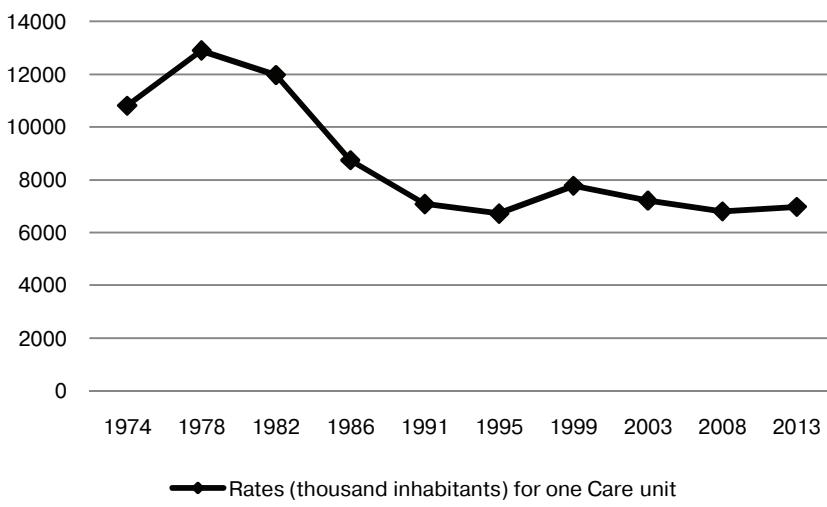
The multidimensional crisis that occurred in the late 1990s had resulted in a significant withdrawal of the State for the financing of health. The lack of operating funds and equipment allocated to the health sector had been reflected primarily on community-acquired facilities therefore in the level of performance of the national health program [3]. A more sustained investment is needed to improve the effectiveness of primary health care.

It was during the years 1990—2000 that appeared the rise of private health care [10], the number of private health care facilities was 398 clinics in 2013.

Chart 1 shows three important periods. The first period from 1974 until the late 80's characterized by very strong growth, then came the second period of stagnation due to the security disorder period in Algeria in the 90s and the third period in the 2000s after the improvement of safe & economic condition (chart 1).

**Chart 1.** Rates of inhabitants for 01 polyclinic in Algeria

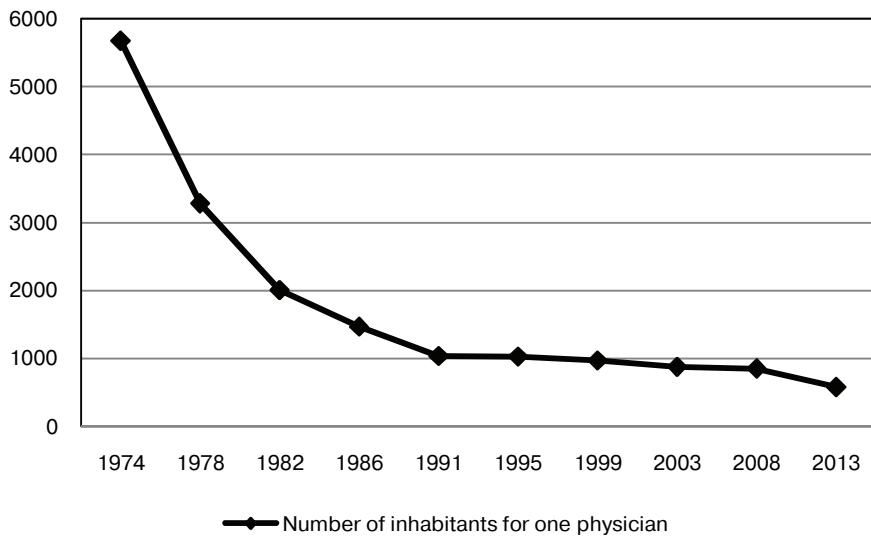
In charts 2 we found virtually the same dynamic that graph 2 only the third period is not as obvious and it is due to a lack of efficiency in the Algerian health system (chart 2).

**Chart 2.** Rates of inhabitants for 01 care unit in Algeria

Charts 1 and 2 show clearly the progress achieved in the supply of first care to the population [9]. The total of the facilities for primary health care seems sufficient, however, their spreading, their staffing personnel and equipment and as a result, the benefits they provide to people, present disparities [8]. Inequalities in the distribution of medical specialists exist; some parts of the country do not have public health specialists in vital areas (pediatrics, gynecology obstetrics, general surgery and cardiology) [3]. Health systems today face multiple challenges including the resources to fund this type of health care facilities.

A new health organization was established in May 2007 with objectives to plan and organize the provision of care and modernize facilities. The missions of the various current primary care facilities are: Hospital Public Establishment (EPH) supports — organization, programming of curative care, diagnostic, medical rehabilitation and hospitalization; implementation of national health programs; hygiene and sanitation; professional improvement of the medical staff. Medical public establishment of proximity (EPSP) — it's all polyclinics and care units whose missions are: the polyclinic is a hospital extra facilities that provide general medical activities; dental care activities; nursing care; medical and surgical emergencies; prevention and diagnosis. The care unit is a nursing unit closest to the citizen and provides general medical activities, nursing and prevention activities.

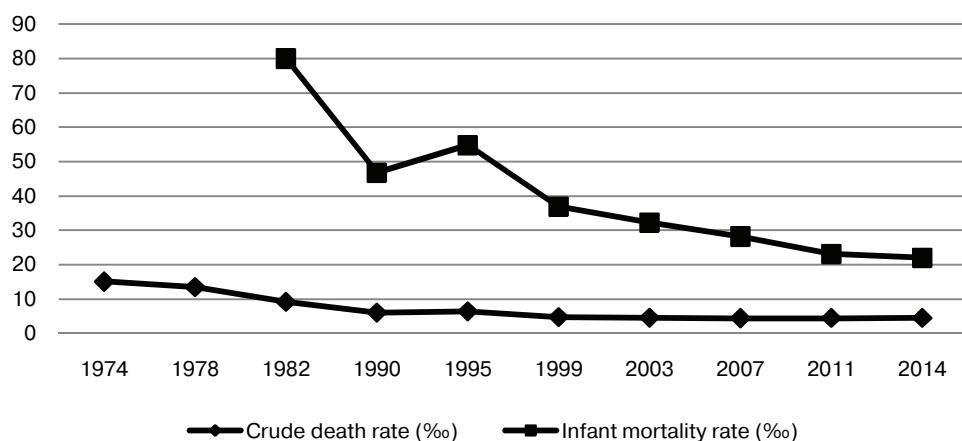
Sustained growth and significant numbers of physicians all specialties combined is recorded, ensuring a satisfactory rate of inhabitants for 1 physician (chart 3). But inequalities in the distribution of medical specialists exist, a large proportion of health districts and even regions have no public health specialists in such vital areas as paediatrics; obstetrics and gynaecology; general surgery and cardiology. For example in 2001 there has been a national average of 3,000 inhabitants for 1 medical specialist but this ratio varies from 1 medical specialist for 860 inhabitants in the city of Algiers to 17800 inhabitants for 1 medical specialist in the city of Tissemsilt (located 210 km from Algiers) [10].



**Chart 3.** Rates of inhabitants for 01 physician in Algeria

Qualitatively, despite the will of “rebalancing” regularly affirmed, rural areas are generally very disadvantaged even in the most intensely covered areas, the presence of health centers or care units is not enough to ensure reasonable access to care, because of the lack (or instability) of qualified personnel, shortages of materials or drugs, etc. To really appreciate the offer of care in terms of “human resources”, it should examine in detail the distribution of all health professionals and especially the actual modalities of integration of respective competences at the various types of facilities this would probably show inconsistencies [4].

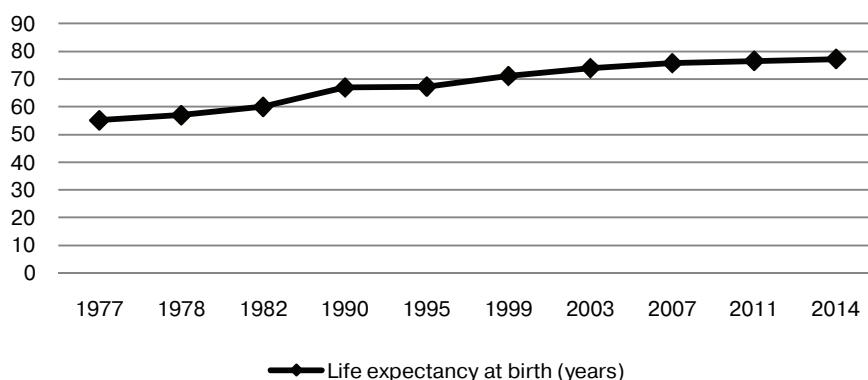
An analysis of official data on different health criteria allowed us to show the evolution of the population's health condition. It shows a positive growth in the last forty years (chart 4).



**Chart 4.** Evolution of health criteria: crude death rate and infant mortality rate in Algeria

The crude death rate fell from 10,7‰ to 4,44‰; there is a rapid regression at the beginning which can be explained by the introduction of free medicine and the raising of the socio-economic level of the population then, a slight decrease of the curve during 1990s and finally a resumption of the decline in the rate of mortality gross but very weak to stagnate around 4,4‰.

The infant mortality rate decreased significantly, estimated at 80‰ in 1984, it fell to 46,8‰ in 1990. It is due to national programs for the protection of mother and child, which include: the Expanded Immunization Program, the program against children diarrheal diseases, the program against the child respiratory disease, the maternal and newborn mortality rehabilitation program, the nutrition program, the program against the Acute Rheumatic and the accident prevention program. The objective of the expanded immunization program is to get the regression or disappearance of six infectious diseases: Tuberculosis, Diphtheria, Tetanus, Whooping cough, Polio, Measles [6]. The infant mortality rate remains alarming but the trend is towards the regression, after a rate that gravitated around 50‰ in the 90 and even 54,8‰ in 1995, the level quickly regressed to 22‰ in 2014. This decrease is mainly due to the significant decline in post neonatal mortality and can be explained by the efforts made in the field of child health focused mainly on reducing external causes such as infectious diseases, hygiene and feeding conditions, etc. (chart 5).



**Chart 5.** Evolution of health criteria: life expectancy at birth in Algeria

The curve of life expectancy at birth looks like it grew exponentially but thorough and detailed study shows differences in this evolution. Initially, the curve of life expectancy is progressing rapidly, in relation to the development of the country, the improvement of the living standard and health care offerings, but this curve has declined in the 1990s due to the security situation in the country, and then life expectancy resumes its progress to its current level of 77,2 years.

**Conclusion:** all available indicators point to an undeniable and steady improvement in the general state of health of the Algerian population in recent decades. In last forty years, life expectancy increased by 40% and the rate of infant mortality was divided by 4%. During the same period the number of inhabitants per doctor was divided by ten and the number of inhabitants per polyclinic was divided by six. The Algerian health system still faces challenges such as demographic and socio-economic country devel-

opment. This socio-cultural and geographical disparity shows the difficulty of imposing a single model of primary health care in the country. Various actions have been initiated, but not all aspects of the various components of the health system had taken into account. We believe that improving the primary care system is needed. The increased expectation of life means more chronic diseases than before, such as heart diseases, diabetes, cancer, etc. For this, basic health infrastructure should be flexible and adjusted to different contexts. It's necessary that people have available medical facilities; the need for chronic diseases prevention programs, early detection of diseases so that patients receive treatment early and avoid costly care.

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## РАЗВИТИЕ ПЕРВИЧНОЙ МЕДИКО-САНИТАРНОЙ ПОМОЩИ В АЛЖИРЕ

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Право человека на охрану здоровья означает, что медицинские услуги должны быть доступны для всех. Доступность медицинских услуг авторы статьи связывают с уровнем и качеством развития первичной медико-санитарной помощи. Организация оказания первичной медико-санитарной

помощи является ключевым моментом системы здравоохранения. Об этом впервые было заявлено в 1978 г. на конференции, организованной Всемирной организацией здравоохранения (ВОЗ).

Для оценок ситуации в здравоохранении Алжира были подвергнуты анализу источники литературы, данные ВОЗ, результаты исследований в разных институтах.

Основываясь на программных документах ВОЗ, в Алжирской Республике постепенно и настойчиво развивали учреждения первичной медико-санитарной помощи, готовили медицинский персонал. Оценки достигнутых успехов отражены в критериях здоровья населения и развития здравоохранения в Алжире. Представлены показатели рождаемости, младенческой смертности, количества населения на медицинское учреждение, на одного врача.

Инфраструктуру здравоохранения на уровне первичной медико-санитарной помощи представляют медицинские центры и поликлиники. Быстрыми темпами на протяжении 40 лет строились медицинские учреждения, число которых увеличилось с 1402 до 5484, из них поликлиник — 106 до 1627, госпитальных коек — от 43 404 до 63 212, относительно того, что численность населения возросла с 16 370 000 до 39 500 000 человек. За этот же период количество жителей на одну поликлинику уменьшилось с 140 000 до 20 000 чел., один медицинский центр обслуживает около 7000 человек, количество жителей на одного врача уменьшилось с 6000 до 600 человек. Что касается качественных показателей здоровья, то следует подчеркнуть снижение младенческой смертности с 80 на 1000 в 1984 г. до 46,8 на 1000 в 1990 г., вследствие специальных программ охраны материнства и детства, расширенной иммунизации. Средняя продолжительность жизни жителей Алжира к 2014 г. достигла уровня 77,2 лет.

**Ключевые слова:** первичная медико-санитарная помощь, медицинские учреждения, поликлиники, показатели здоровья, коэффициент младенческой смертности; средняя продолжительность жизни