

HIV patient access to healthcare services in post-austerity era in Greece

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Research

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HIV patient access to healthcare services in post-austerity era in Greece

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Background

The ten-year economic crisis and the ensuing fiscal adjustment that Greece experienced between 2009 and 2018 has had a major impact on patient access to healthcare services and resulted in an increase in unmet population health needs. The present study assesses the impact of economic crisis and ensuing austerity on HIV patient access to healthcare services.

Methods

A cross-sectional study was carried out between February and April 2019 to assess barriers in access to HIV care faced by people living with HIV. 329 HIV-positive individuals participated in the study. An online, self-reporting questionnaire was developed on the basis of the HOPE studies tool (2,3,9,10) and adapted to the specific clinical and societal characteristics of HIV.

Results

94.2% of respondents were male and 67.80% lived in Athens. Most of them were diagnosed with HIV 1 to 10 years ago. 37,40% of respondents reported obstacles in accessing HIV care over the past year, such as shortages in antiretroviral medicine, restricted opening hours of pharmacies and delays in booking an appointment with physicians. 24,30% reported they were not tested for viral load in the last six months and received a result. Individuals, who self-evaluate their financial status as very bad or bad, were more likely to be unaware of their viral load (55.60%) compared to individuals with better financial status (33,5%) ($P < 0.01$). Only 33.3% of uninsured participants were aware of their viral load, and this figure rose to 63.30% ($P < 0.01$) amongst insured participants.

Conclusion

Our study suggests that a critical proportion of HIV patients in Greece face significant barriers to receiving optimal HIV care, according to diagnostic and clinical guidelines. Financial and social insurance status are the main variables that impact on access, despite the comprehensive and universal NHS coverage of antiretroviral treatment and HIV monitoring. Reforming and integrating NHS service provision together with addressing social barriers and discrimination are critical to ensuring care is offered as per standards to all people living with HIV in Greece.

Keywords

HIV, AIDS, Greece, Access to care, Barriers, Patient access, Economic crisis, Healthcare System, Fiscal adjustment

Background

Between 2009 and 2018, Greece experienced an unprecedented economic crisis with a critical impact on healthcare resources. Per capita health expenditure decreased from 2,287 euros in 2009 to 1,650 euros in 2015 (1), significantly below the EU average. Public health spending in 2015 accounted for 5% of the GDP and declined from 15.5 billion euros in 2009 to 8.7 billion euros in 2014, way lower than the European Union average of 7.2% (2). Meanwhile, rate of population living at risk of poverty or social exclusion rose from 27.6% in 2006 to 36% a decade later, and unemployment rate rose from 10% in 2009 to 27.8% in 2013. It, subsequently, fell to 18.6% in 2018.

The impact of this economic crisis was reflected in increasing population unmet health needs. In 2016, 14.4% of individuals reported that they did not have access to health services, compared to 4.1% in 2009. In terms of the economically weaker fifth of the population, 36.5%, or more than 1 in 3, reported unmet health needs (3).

This reality of increasing unmet health needs was also experienced by HIV positive people. HIV has been recognized as a public health priority since the 1980s in Greece and it has consistently been managed according to optimal diagnostic and clinical protocols and guidelines in HIV units in public hospitals, funded 100% by the state budget (hospital budget). People living with HIV are comprehensively monitored in these HIV units and are dispensed their antiretroviral treatments from the respective hospital pharmacies. Over the decade of the economic crisis (2009-2018), total number of people diagnosed with HIV increased by 80% (4), whereas public hospital funding decreased by 42% from € 6.9 billion in 2009 to € 4 billion in 2015 (5). As a result, increasing population needs had to be managed with decreasing available funds, potentially impacting on access to and quality of offered services.

This study assesses barriers to access to optimal care of people living with HIV in Greece after a decade of austerity and the variables that impact on such access.

Methods

A cross-sectional study was carried out between February and April 2019 to assess barriers in access to HIV care faced by people living with HIV. An online, self-reporting questionnaire was developed on the basis of the HOPE I, II, III and IV (6,7,8,9) studies tool and adapted to the specific clinical and societal characteristics of HIV. The questionnaire consists of three main sections. The first section records general demographic data regarding gender, age, level of education, income, occupation and health

insurance type. The second section assesses access to healthcare services in Greece. The third section evaluates the economic situation and social capital of participants to correlate these with barriers in access to care. For comparisons of proportions, chi-square and Fisher's exact tests were used. All p-values reported are two-tailed. Statistical significance was set at 0.05 and analyses were conducted using SPSS statistical software (version 22.0).

The study was approved by the Institutional Review Board of the Greek Association of People Living with HIV "Positive Voice" and was in line with the ethical standards set by the Declaration of Helsinki. Positive Voice disseminated the questionnaire through its communication tools such as members' mailing list, website, monthly newsletter and social media. Participation in the study was voluntary. The questionnaire was anonymous. Researchers did not gather or use any individual personal data. All friends and members of the Association had an equal probability of participating. As a result, 329 HIV-positive individuals participated in the study.

Results

94.2% of respondents were male and 4.3% female. Almost half of participants were aged 36 to 50, and 27.1% were 26 to 36 years old. 67.80% lived in Athens. About 40% were university graduates, with an additional 23% holding a master's degree or PhD. 50,80% of respondents reported their economic status as good or very good.

Table 1: Participants Demographics

Gender	
Man	94.20%
Woman	4.30%
Trans man	0.30%
Trans woman	0.30%
Other	0.90%
Total	100%
Age	
18-25 y.o.	5.80%
26-35 y.o.	27.10%
36-50 y.o.	50.80%
Over 51 y.o.	16.40%
Total	100%
Place of residence	
Athens	67.80%
Thessaloniki	17.60%
Greek province	14.60%
Total	100%
Educational level	
Secondary education	19.50%
Institute of Vocational Education	17.60%
Bachelor's degree	39.80%
Master's degree of PhD	23.10%
Total	100%
Self-reported economic status	
Very good to good	50.80%
Very bad to fair	49.20%
Total	100%
Social Insurance status	
Insured	74.50%
Uninsured	25.50%
Total	100%

61.4% were diagnosed with HIV 1 to 10 years ago, 27.7% more than a decade ago and 9.4% within the last 12 months. 52.3% of respondents reported less than 500 CD4 T-cells and 20.10% reported less than 200 CD4 T-cells at the time of diagnosis.

56.50% of respondents reported access to viral load testing through the public system over the last six months and 15.80% paid out of pocket in the private sector. 24.30% of respondents were not tested at all for viral load over the same period. 52.60% reported an undetectable viral load and an additional 16.70% said that they were still waiting for their test results, because of significant delays.

Table 2: Health status

HIV diagnosis time	
Last year	9.40%
1 to 5 years ago	32.80%
5 to 10 years	28.60%
Over 10 years ago	27.70%
I do not know / I do not remember	1.50%
CD4 T-cells count at the time of diagnosis	
Over 500 CD4	34.70%
200 to 500 CD4	32.20%
Less than 200 CD4	20.10%
I do not know / I do not remember	13.10%
Have you had a CD4 count test in the last six months?	
Yes, I was tested.	84.20%
No, I was not tested.	5.50%
I do not know / I do not remember	10.30%
Have you had a viral load test in the last six months?	
Yes, I was tested for viral load in a hospital HIV unit	56.50%
Yes, I was tested for viral load in a private laboratory	15.80%
No, I was not tested for viral load	24.30%
I do not know / I do not remember	3.40%
If you were tested for viral load in the last six months, are you aware of the result?	
Yes, I have an undetectable viral load	52.60%
Yes, I have a detectable viral load	3.00%
No, my clinician has not yet informed me of the result	16.70%
I was not tested, or I do not remember if I was tested for viral load	27.70%

55.60% of participants reported being aware of their viral load in the last six months. Among them, 52.60% had undetectable viral load and 3.00% did not managed to suppress virus replication. Individuals, who self-evaluate their financial status as very bad or bad, were more likely to be unaware of their viral load (55.60%) compared to individuals with better financial status (33.50%) ($P < 0,01$). Only 33.3% of uninsured participants were aware of their viral load, whereas this figure rose to 63.30% ($P < 0,01$) amongst insured participants.

Overall, 37.40% of respondents reported obstacles in accessing HIV care over the past year. Those barriers were mainly related to laboratory tests and antiretroviral treatment and included delays in receiving test results (28.00%), shortages in antiretroviral therapies in hospital pharmacies (14.3%), restricted opening hours (11.6%), delays in booking an appointment with physicians (21.6%) and barriers to visiting the hospital due to geographical distance (10.3%). As a result, 20% of respondents reported experiencing intense stress regarding their health status. Self-assessment of financial and insurance status was significantly correlated with access to HIV care. Uninsured individuals or respondents who reported lower financial status, were more likely to encounter barriers to accessing HIV care ($P < 0,01$).

Table 3: Impact of economic status and social security on accessing HIV care in the last year

	Total	Self-assessment of economic status			Social Security		
		Bad / Very bad	Good / Fair		No	Yes	
Obstacles in accessing HIV care in the last year	37.40%	46.90%	28.10%	$P < 0,01$	63.10%	28.60%	$P < 0,01$
Limited access to laboratory tests	28.00%	40.70%	15.60%	$P < 0,01$	57.10%	18.00%	$P < 0,01$
Shortages in antiretroviral medicines	14.30%	19.80%	9.00%	$P = 0,05$	31.00%	8.60%	$P < 0,01$
Long waiting time for a medical appointment	21.60%	34.00%	9.60%	$P < 0,01$	46.40%	13.10%	$P < 0,01$
Long distance from the hospital	10.30%	14.80%	6.00%	$P = 0,09$	14.30%	9.00%	$P = 0,168$
Difficulties in accessing hospital pharmacy because of restricted opening hours	11.60%	20.40%	3.00%	$P < 0,01$	19.00%	9.00%	$P = 0,013$

I have been unaware of my viral load in the last six months	44.40%	55.60%	33.50%	<i>P<0,01</i>	66.70%	36.70%	<i>P<0,01</i>
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Discussion

The fiscal crisis in Europe had a great impact on health services in a variety of ways (10). Healthcare systems were mainly affected by public budget cuts and a lack of financial and human resources (11,12, 13). On the other hand, cost sharing has shifted to households and has hampered access, especially for patients with low incomes and high frequency of healthcare services utilization (6). Previous studies have highlighted the negative impact of austerity on the quality of healthcare services in Greece. These consequences were highlighted with regards to self-assessment of health status (14), quality of services (15), increasing inequalities in access to care (5,16), deterioration of physical and mental health indicators (14) and cuts in public health programs (17).

HIV has been traditionally considered a public health priority (18), and its management safeguarded through comprehensive monitoring and universal access to care. HIV antiretroviral treatment suppresses virus replication in blood and limits its copies to undetectable levels. The viral load test confirms the success of the process and is the most crucial indicator for the health status of people living with HIV and their response to antiretroviral therapy (19). The international, European (19) and Greek guidelines (20) for the management of HIV recommend viral load monitoring at least every 6 months. However, and as this study confirms, Greece has been facing increasing barriers in recent years, regarding patient access to viral load tests, primarily due to shortages of reagents in public laboratories and the inability of the state to address these through contracting services from the private sector, in a fully anonymized manner. Such a situation is expected to impact not only on personal but also on public health, as HIV-positive people with undetectable viral load cannot transmit the virus to their sexual partners (21). 44,40% of respondents in the study reported they have not confirmed in vitro whether they have an undetectable viral load in the last six months. This is critical for treating physicians as they cannot assess the effectiveness of antiretroviral medication and adjust treatment options accordingly. This figure is higher amongst the most vulnerable groups, such as persons with lower financial status (55.60%) and uninsured individuals (66.70%). Further, 40.70% of people with a self-reported bad financial status and 57.10% of uninsured respondents say that they have encountered barriers in accessing laboratory tests in the last year, thus actively undermining clinicians and public health efforts to manage HIV through effectively achieving undetectable status for all people living with HIV.

Overall, present findings suggest that 37.40% of HIV patients faced barriers to accessing HIV care in 2019. Financial and social insurance status were the main variables that impacted on access to HIV care, despite universal NHS coverage of population (22), both insured and uninsured (Law 4368/2016) (22). Of the respondents that assessed their financial status as good or very good, 28.10% reported barriers to accessing healthcare services. The figure for people in worse financial conditions is 46.90%. Similarly, insured persons are less likely to face obstacles (28.60%) than uninsured (63.10%).

Additionally, the study confirmed that when people living with HIV face barriers in accessing care in the health system in Greece, these are likely to stem from more than lack of resources. Limited testing services due to bureaucratic inability to conduct international tenders for supplying reagents, shortages of antiretroviral medicines due to lack of a global hospital budget for HIV, restricted hospital pharmacy opening hours due to inefficient allocation of human resources and delays in booking an appointment due to lack of a fully operational scheduling system, all contest to the need for extensive administrative and operation reforms within the NHS and beyond (15, 24), if to deliver on universal and comprehensive access to quality services. Such system shortcomings have been confirmed elsewhere before. In the HOPE studies, patients with rheumatoid arthritis, cancer or multiple sclerosis and drug users with hepatitis C in Greece reported critical difficulties in accessing medicines, physical distance from providers and long waiting times for a medical appointment (6,7,8,9).

These difficulties contest to a persisting need for structural work within the NHS. Unlike other countries such as Iceland and Finland in the early 2010s (25), where access to care was safeguarded against economic collapses through integrated administrative, health and social measures, our study confirms the negative impact the fiscal crisis has had on the operability and responsiveness to need of the NHS, amongst a group of patients, people living with HIV, that have been traditionally optimally managed. Among these patients, addressing such barriers is a critical first step. And it is not the only one to be taken in the direction of effectively managing HIV. Any future HIV care policy needs to allow for the social dimension of the condition and contribute to reducing stigma and discrimination against people living with HIV, critically men who have sex with men, injecting drug users, sex workers, refugees and migrants, so that they are not only supported when overcoming barriers but also actively encouraged to seek the care they need.

Conclusion

Our study suggests that a critical proportion of HIV patients in Greece face significant barriers to receiving optimal HIV care, according to diagnostic and clinical guidelines, thus challenging not only personal but also public health. Financial and social insurance status are the main variables that impact on access, despite the comprehensive and universal NHS coverage of antiretroviral treatment and HIV monitoring. Reforming and integrating NHS service provision together with addressing social barriers and discrimination are critical to ensuring care is offered as per standards to all people living with HIV in Greece.

Ethics approval and consent to participate

The study was approved by the Institutional Review Board of Positive Voice and was in line with the ethical standards set by the Declaration of Helsinki. Participation was voluntary, anonymized and informed consent for participation was requested and obtained from all participants.

Consent for publication

Not applicable.

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interest with any financial and non-financial organization regarding the material discussed in the manuscript.

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Authors' contributions

The authors contributed to all phases of this study.

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