

Original Research

Gender and geographical inequalities in fatal drug overdose in Iran: A province-level study in 2006 and 2011

Mehran Rostami^a, Mohammad Karamouzian^{b,e}, Ardeshir Khosravi^c, Shahab Rezaeian^{d,*}^a Deputy for Treatment, Kermanshah University of Medical Sciences, Kermanshah, Iran^b HIV/STI Surveillance Research Center, and WHO Collaborating Center for HIV Surveillance, Institute for Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran^c Deputy for Public Health, Ministry of Health and Medical Education, Tehran, Iran^d Research Center for Environmental Determinants of Health (RCEDH), Kermanshah University of Medical Sciences, Kermanshah, Iran^e School of Population and Public Health, University of British Columbia, Vancouver, BC, Canada

ARTICLE INFO

Article history:

Received 21 May 2017

Revised 7 December 2017

Accepted 8 January 2018

Available online 16 January 2018

Keywords:

Drug-related deaths

Substance use disorders

Iran

ABSTRACT

Aim: We aimed to compare the fatal drug overdose rates in Iran in 2006 and 2011.**Methods:** This analysis was performed based on data on fatal drug overdose cases from the Iranian death registration system. The crude and adjusted rates per 100,000 populations for geographical regions stratified by gender and age groups were calculated using the 2006 and 2011 census of Iranian population. Annual percentage change was calculated to examine annual changes of fatal drug overdose rates across different regions.**Results:** The overall age-adjusted rate of fatal drug overdose decreased from 3.62 in 2006 to 2.77 in 2011. A substantial difference in the distribution of fatal drug overdoses was found across geographical regions by gender and age groups.**Conclusion:** Rates of fatal drug overdose were higher among Iranian men and in both younger and older age groups which call for scaling up harm reduction and increasing access to gender- and age-specific substance use treatment services.

© 2018 Elsevier Ltd. All rights reserved.

1. Introduction

Illicit drug use is a serious public health concern in Iran and contributes to numerous adverse health outcomes (Amin-Esmaili et al., 2016; Naghavi et al., 2014). Population size estimations suggest that around two million people use illicit drugs in Iran which is consistent with the findings of a recent national survey of substance use disorders in Iran estimating the prevalence of illicit drug use disorders to be around 2.4%

(Nikfarjam et al., 2016). Previous studies also suggest illicit drug use to be significantly higher among men, those who come from lower socio-economic status, and individuals who are divorced/widowed (Zafarghandi et al., 2015). While the illicit drug market in Iran includes a wide range of substances and the use of heroin and stimulants is on the rise (Amin-Esmaili et al., 2016; Sharifi et al., 2017; Alam-mehrjerdi et al., 2015), opium remains the dominant illicit drug consumed across the country (Nikfarjam et al., 2016). Opium's popularity in Iran could be attributed to the history behind opium production in Iran before the Islamic revolution, its proximity with Afghanistan (i.e., a country with the highest opium production in the world) and its location on the main drug transit route to Europe (Amin-Esmaili et al., 2016; Eybpoosh et al., 2016).

* Corresponding author.

E-mail addresses: m.rostami@kums.ac.ir (M. Rostami), khosravi-a@health.gov.ir (A. Khosravi), shahab.rezaeian@kums.ac.ir (S. Rezaeian).

Vulnerabilities associated with illicit drug use in Iran are more pronounced among people who inject drugs (Rahimi-Movaghar et al., 2012; Khajehkazemi et al., 2013; Malekinejad et al., 2015). Indeed, injection drug use has been shown to be significantly associated with the increased burden of HIV and other sexually transmitted and blood-borne infections (STBBI) in Iran (Rahimi-Movaghar et al., 2012; Khajehkazemi et al., 2013; Malekinejad et al., 2015; Amin-Esmaeili et al., 2012; Amiri et al., 2016). Although Iran's approach to addressing the harms associated with illicit drug use used to be heavily driven by its 'war on drugs' policies and enforcement-led supply reduction efforts, harm reduction policies were officially introduced in 2005 (Razzaghi et al., 2006). Current harm reduction programs are run through governmental and non-governmental agencies and include a range of free services including integrated prevention, care, and treatment services targeting HIV/STBBI and illicit drug use (e.g., needle and syringe exchange, methadone maintenance treatment (MMT), routine medical care, referral for voluntary HIV counseling and testing) (Zafarghandi et al., 2015; Razzaghi et al., 2006; Karamouzian et al., 2017).

Despite the expanding and promising harm reduction efforts aimed at reducing the burden of illicit drug use across the country, rates of fatal drug overdose are on the rise. For example, the mortality rate due to substance use disorders has increased up to 152% over the past two decades with varying rates across the country (Naghavi et al., 2014). This is in part due to our limited understanding the different characteristics of fatal drug overdose across different provinces. Therefore, this study aims to compare the provincial-level fatal drug overdose cases in Iran using national-level data from 2006 and 2011 to help inform the research and resource allocation priorities in future harm reduction activities in the country. Our findings could also help inform policies catered towards reducing the burden of drug overdose throughout the country.

2. Methods

2.1. Study design

This secondary data analysis was performed using fatal drug overdose cases reported by the Ministry of Health and Medical Education (MOHME) in Iran.

2.2. Fatal drug overdose

Illicit drugs considered in this study were opium and other opioids, cocaine, cannabinoids, amphetamine-type stimulants, hallucinogens, inhalants, and other unspecified drugs (e.g., synthetic substances). As data on alcohol-related overdose is not routinely collected in Iran, alcohol was not considered in this analysis. The primary data about fatal drug overdoses were stratified by gender and age groups and collected from various sources including hospitals as well as urban and rural health centers under the supervision of provincial medical universities (Khosravi et al., 2007). This process was informed using a single uniform death certificate across the country which was compatible with the 10th revision of the International Classi-

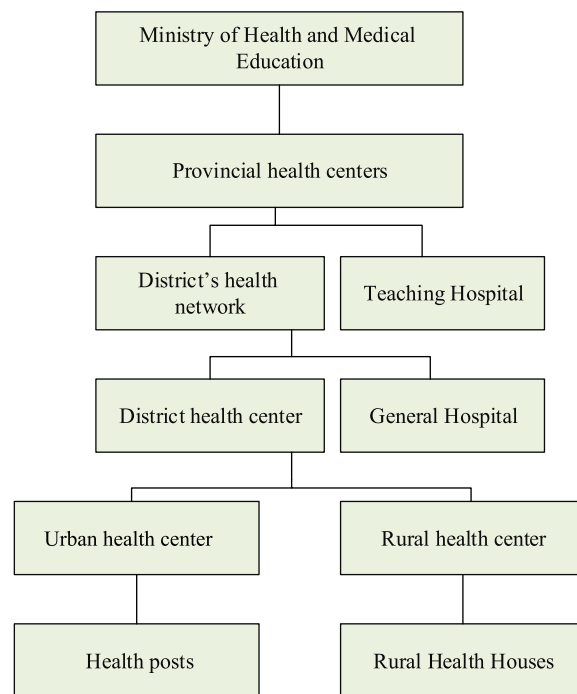


Fig. 1. Health system network in Iran.

fication of Diseases (ICD-10) (World Health Organization, 2017). Data was collected through a chain of referrals from the Rural Health Houses up to the MOHME (Fig. 1). The study periods of 2006 and 2011 were chosen because the drug-related mortality data were available to the authors only for these two years at the time of conducting the study.

2.3. Population and geographical regions

The data on gender and age distribution of the population from all provinces (except Tehran and Alborz) were obtained from the 2006 and 2011 Population and Housing Censuses of Iran (Statistical Centre of Iran, 2017). Age was classified into four categories of 10–19, 20–39, 40–59, and ≥ 60 years.

According to the previous studies (Amin-Esmaeili et al., 2016; Rahimi-Movaghar et al., 2014) the provinces were divided into eight geographical regions including the northwest (i.e., Ardebil, East Azarbaijan, Gilan, West Azarbaijan, Zanzan), west (i.e., Hamadan, Ilam, Kermanshah, Kordestan, Lorestan), central (i.e., Alborz, Qazvin, Qom, Tehran), southeast (i.e., Hormozgan, Kerman, Sistanva-Baluchestan), southwest (i.e., Chaharmahal-va-Bakhtiari, Esfahan, Khuzestan, Markazi), north (i.e., Golestan, Mazandaran, Semnan), northeast (North Khorasan, Razavi khorasan, South khorasan), and south (i.e., Bushehr, Fars, Kohgiluyeh-va-Buyer Ahmad, Yazd).

2.4. Ethics statement

This study was based on the electronic file of fatal drug overdose data available from the MOHME. Given the

Download English Version:

<https://daneshyari.com/en/article/7495791>

Download Persian Version:

<https://daneshyari.com/article/7495791>

[Daneshyari.com](https://daneshyari.com)