Historical trends in completeness of death registration in Islamic Republic of Iran

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Abstract

Background: Mortality statistics are essential for public health planning, policy and decision-making. However, underreporting of mortality has been a significant concern in Islamic Republic of Iran.

Aim: To analyse trends in mortality and crude death rates, and the completeness of death registration in Islamic Republic of Iran.

Methods: We obtained and analysed mortality indicators for Islamic Republic of Iran from 2006 to 2021.

Results: Completeness of death registration increased consistently from approximately 80% in 2006 to 94% in 2021 for both sexes. However, there were variations in completeness from province to province. Mortality rates were higher for males than for females.

Conclusion: Consistency in the completeness of death registration varied significantly among the provinces, therefore, policies and interventions are needed to address these disparities and improve the overall quality and completeness of mortality data in Islamic Republic of Iran.

Keywords: crude death rate, death registration, mortality data, mortality tracking, Iran

Citation: Kazemi E, Rezanejad-Asl P, Rabbani B, Khosravi A. Historical trends in completeness of death registration in Islamic Republic of Iran. East Mediterr Health J. 2025;31(6):371–379. https://doi.org/10.26719/2025.31.6.371.

Received: 04/06/2024; Accepted: 15/01/2025

Background

Mortality tracking systems are crucial for public health planning and policymaking. Civil registration data are the most reliable source for tracking mortality and determining causes of death *(1)*. However, in many developing countries, death registration data are often incomplete or include misclassified causes of death. Globally, an estimated 55 million deaths occur annually, half of which go unrecorded. While some countries have made significant strides in strengthening their vital statistics systems, overall progress remains limited. Between 1970 and 2013, the global death registration rate increased by only 17% , equivalent to an annual growth rate of just 1% (3). A WHO report shows that only 40 of 194 countries provided high-quality cause-of-death data to WHO (3). This indicates that 65% of the global population lives in countries where the quality of cause-of-death data is insufficient to effectively monitor progress toward achieving the Sustainable Development Goals (SDGs) and/or inform evidence-based health decision-making. In general, the civil registration and vital statistics (CRVS) systems in low- and middle-income countries across Africa, Asia, and the Pacific are the weakest, with only 4 African nations having adequate cause-of-death data for health policy decisions *(2–4)*.

Islamic Republic of Iran has implemented 2 concurrent death registration systems (5). The first, managed by the National Organization for Civil Registration (NOCR) since 1918, maintains the official documentation of vital events, including deaths. Death registration involves mandatory reporting by relatives within 10 days, verification by the civil registration office, and issuance of a death certificate. All details are recorded in a centralized database managed by NOCR. However, the quality of cause-of-death data from the NOCR has been deemed insufficient for health policy formulation.

To address this, the Ministry of Health and Medical Education (MOHME) established a parallel system aimed at strengthening cause-of-death data collection (*5,8,9*). Initially, data were collected monthly from cemeteries in 24 cities. The system expanded nationwide in 1995, and by 1997, had evolved into a comprehensive death registration programme, leveraging medical death certificates from hospitals, cemeteries, and outpatient facilities at the district level. District health centre staff continue to digitize these certificates and upload them into a specialized online system. Over the past two decades, this system has been significantly enhanced, achieving broader data coverage, improved completeness, and more precise cause-of-death classification.

These advancements have contributed to numerous national and international research studies and reports, including those by WHO and the Global Burden of Disease (GBD) study *(5–9)*. To generate more accurate estimates of mortality levels and trends, scientists have developed various approaches to assess and adjust for underreporting and gaps in death registration systems. One widely used approach is death distribution methods (DDMs), which evaluate the coverage and completeness of adult death registration data for individuals aged ≥5 *(10–12)*. These techniques compare population figures with age-specific death patterns recorded in the CRVS system. DDMs rely on key assumptions about population dynamics, including growth rates and migration patterns *(10–12)*.

Adair and Lopez presented a new empirical method to simplify the estimation of death registration completeness *(12)*. This method is more straightforward and more user-friendly than existing ones and can be adopted by government agencies with minimal training. It uses commonly available data to assess registration completeness while accounting for key factors influencing crude death rates in populations *(10)*.

Objectives of this study

Over the past decade, studies evaluating the MOHME death registration system in Islamic Republic of Iran have highlighted discrepancies in the completeness of death registration data, the number of reported deaths, and crude death rates *(8,9)*. To address these gaps, this study analysed trends in mortality and crude death rates from 2006 to 2021 using the Adair and Lopez method to refine the data and provide a more accurate assessment of death registration completeness in the country.

Methods

Data collection

We obtained mortality indicators from the death registration system database of MOHME and NOCR, covering the years 2006–2021 *(5,13,14)*. Population data were used as the denominator to compute mortality rates and to describe the population structure, notably the percentage of individuals aged ≥65 in the model. These data, disaggregated by sex and 5 year age groups, were derived from the Statistical Centre of Iran (SCI) for the period 2006–2021. Census results were used for 2006, 2011, and 2016, while estimates were used for intercensal years *(15–17)*. Sex-disaggregated birth data were obtained from the NOCR for 2006–2021 and were used to estimate child mortality *(14)*.

Child mortality data for under-5 children in Islamic Republic of Iran from 2006 to 2021 were sourced from the United Nations Inter-Agency Group for Child Mortality Estimation (UN-IGME), which uses available data to estimate key child mortality indicators by sex, age group, and country *(18)*. These indicators, derived from various sources – including vital registration, surveys, and censuses – are modelled using the Bayesian B-Splines Bias Adjustment Model (B3 Model) to generate sex-specific child mortality indicators *(18)*.

Statistical analysis

To analyse outcomes measured repeatedly over time (longitudinal data), mixed effects models are widely used *(19–21)*. Linear and non-linear mixed effects models (LMMs & NLMMs) are sophisticated extensions of simple linear and non-linear models, incorporating both fixed and random effects. These models are considered the most suitable for analysing non-independent, longitudinal, or correlated data *(19–22)*.

Suppose Y_{ij} is the response for the i^{th} sampling unit on the j^{th} occasion, β is a $(p \times 1)$ vector of fixed effects, b_i is a $(q \times 1)$ vector of random effects, X_i is a $(n_i \times p)$ matrix of covariates, Z_i is a $(n_i \times q)$ matrix of covariates, with $q \leq p$ (where the columns of Z_i are subsets of those of X_i), and e_i is a $(n_i \times 1)$ vector of the error term *(19)*. The general form of mixed effects model can be written as follows:

$$Y_i = X_i\beta + Z_i b_i + e_i$$

(Equation 1)

Underreporting is a common limitation of death registration systems. To address this issue, various statistical and demographic methods have been developed *(12,23–25)*. Among these, a modelling approach has been introduced to predict completeness based on the relationship between the registered crude death rate (Reg CDR), the true child mortality rate ($5q_0$), the registered child mortality rate (Reg $5q_0$), and population age structure, expressed as the percentage of the population aged ≥65 (%Pop 65) *(12)* . This approach consists of 2 models, as follows:

$$logit\left(C_{ij}^{All}\right) = \beta_0 + b_{0i} + RegCDR_{ij}^2 * \beta_1 + RegCDR_{ij} * \beta_2 + \%Pop65_{ij} * \beta_3 + \ln(5q0)_{ij} * \beta_4 + C_{ij}^{5q0} * \beta_5 + Year * \beta_6 + e_{ij}$$

(Equation 2)

$$logit\left(C_{ij}^{All}\right) = \beta_0 + b_{0i} + RegCDR_{ij}^2 * \beta_1 + RegCDR_{ij} * \beta_2 + \%Pop65_{ij} * \beta_3 + \ln(5q0)_{ij} * \beta_4 + Year * \beta_5 + e_{ij}$$

(Equation 3)

$$\text{RegCDR} = \frac{Registered\ Death}{Population}$$ Registered Crude Death Rate

$$\text{RegCMR} = \frac{Registered\ Death\ (Children\ Under\ 5\ Years)}{Birth}$$ Registered Child Mortality Rate (Under 5 Years $^5q^0$)

$$C^{All} = \frac{RegCDR}{CDR}$$ Completeness of Registration of All ages

$$C^{5q0} = \frac{Reg5q0}{5q0}$$ Completeness of Registration of $^5q^0$

$$\%Pop65 = \frac{Population\ aged\ over\ 65}{population}$$ percentage of Population upper than 65 years old

$$\text{logit}(C^{All}) = \ln\left(\frac{C^{All}}{1 - C^{All}}\right)$$

In these models, *e* represents the error term, *i* denotes the number of countries, and *j* indicates the calendar year. b_{oi} is a random intercept effect, accounting for country-specific variations. The coefficients β_0 to β_6 represent fixed effects. In models (2) and (3), each country has an underlying level of completeness over time ($\beta_0 + b_{oi}$), with the intercept varying randomly across countries.

Researchers fit these models to global data and provide parameter estimates in the appendices for calculating completeness across countries.

We applied the newly introduced method to assess the completeness of Islamic Republic of Iran's death registration systems from 2006 to 2021. Initially, we used the estimated parameter coefficients provided in the appendices for country-level calculations (*12*). Subsequently, we calculated the registered crude death rate (Reg CDR), registered child mortality rate (Reg CMR), proportion of the population aged ≥65 (%Pop65), ratio of registered CDR to true CDR, and ratio of registered CMR to true CMR.

The values of the calculated parameters and variables for Islamic Republic of Iran were input into the models to estimate completeness for each year of the study period. Completeness was calculated for 2 death registration systems – MOHME and NOCR – and stratified by sex, using 2 models.

For the years affected by the COVID-19 pandemic (2020–2021), the completeness of the death registration system – including and excluding COVID-19 as a cause of death – was calculated to reflect the pandemic's impact on health indicators, particularly mortality rates.

Data analysis, including data cleaning, descriptive statistics, completeness analysis, and trend estimation of crude death rates, was performed using Microsoft Excel.

Results

Table 1 shows the percentage of death registration completeness for males, females, and both sexes from 2006 to 2021 in the MOHME and NOCR death registration systems, based on 2 models.

Both models show a consistent increase in the completeness of death registration for the MOHME and NOCR systems across both sexes. This upward trend is evident for males and females throughout the study period. However, Model 2 indicates a more pronounced improvement in the NOCR system for males than for females (Table 1).

Figures 1 and 2 illustrate the trend of completeness from 2006 to 2021 for both models and systems. They indicate a continuous increase in registration completeness for both sexes across the 2 systems during the study period.

Table 2 illustrates the trend of crude death rates per 1000 population before and after completeness correction using 2 models for both death registration systems. Overall, mortality rates were found to be higher among males than females.

The results of completeness correction using both models indicate an increase in crude death rates for both death registration systems.

For the MOHME death registration system, the crude death rates before correction for completeness were 5.24, 3.51, and 4.39 per 1000 population for males, females, and both sexes, respectively, in 2006. These rates increased to 6.89, 5.44 and 6.17 per 1000 population in 2021 (including COVID-19) and to 5.23, 4.02, and 4.63 per 1000 population in 2021 (excluding COVID-19). After correction for completeness using Model 1, these rates increased to 6.65, 4.48, and 5.56 per 1000 population in 2006, and to 7.14, 5.64, and 6.38 per 1000 population in 2021 (including COVID-19) and to 5.59, 4.32, and 4.94 per 1000 population in 2021 (excluding COVID-19). Following correction for

Table 1 **Percentage of completeness of the death registration system by sex, 2006–2021**

Death registration system						
Year	Model 1			Model 2		
	Both sexes	Males	Females	Both sexes	Males	Females
MOHME death registration system						
2006	79.0	78.7	78.4	78.5	77.9	78.5
2007	84.8	87.4	86.8	84.8	87.4	86.8
2008	81.1	80.4	81.2	80.3	79.2	81.1
2009	81.6	81.6	81.0	81.1	80.9	80.9
2010	83.4	82.9	83.4	83.0	82.2	83.5
2011	80.8	81.0	80.0	81.1	81.1	80.6
2012	82.0	82.5	80.8	81.4	81.9	80.4
2013	84.8	84.8	83.9	83.7	83.8	83.3
2014	88.0	88.2	86.7	85.3	85.7	84.3
2015	88.3	88.4	87.3	86.0	86.3	85.3
2016	89.4	89.3	88.4	87.3	87.4	86.7
2017	94.2	93.8	93.6	89.7	89.2	89.7
2018	93.9	93.5	93.2	89.2	89.0	89.0
2019	93.9	93.5	93.2	89.2	89.0	89.0
2020*	94.5	94.0	93.9	89.8	89.3	89.8
2020**	96.7	96.4	96.4	95.1	94.6	95.0
2021*	94.0	93.7	93.0	89.3	89.3	88.6
2021**	96.9	96.6	96.5	95.4	95.0	95.1
NOCR death registration system						
2006	78.7	77.4	79.7	78.2	76.1	80.1
2007	85.0	86.8	87.3	80.3	83.5	85.1
2008	82.9	81.1	84.5	82.8	80.1	85.2
2009	83.6	82.0	84.9	83.7	81.4	85.8
2010	85.4	83.7	86.8	85.7	83.3	87.8
2011	83.6	83.1	83.6	84.6	83.7	85.0
2012	84.4	84.3	83.9	84.5	84.2	84.4
2013	87.0	86.8	86.7	86.8	86.3	86.8
2014	88.9	88.7	88.1	86.7	86.5	86.3
2015	89.4	89.3	88.6	87.7	87.6	87.2
2016	89.8	89.7	89.1	88.0	87.9	87.7
2017	94.2	93.7	93.6	89.9	89.4	89.9
2018	94.0	93.6	93.4	89.5	89.2	89.4
2019	93.7	93.2	93.0	88.7	88.3	88.7
2020**	96.8	96.4	96.5	95.2	94.7	95.1
2021**	96.9	96.6	96.5	95.4	95.0	95.2

*Excluding COVID-19 **Including COVID-19

completeness using Model 2, the rates increased further to 6.72, 4.47, and 5.59 per 1000 population in 2006, and to 7.27, 5.72, and 6.48 per 1000 population in 2021 (including COVID-19) and to 5.87, 4.54, and 5.19 per 1000 population in 2021 (excluding COVID-19).

For the NOCR death registration system, the crude death rates before correction for completeness were 5.04, 3.65, and 4.36 per 1000 population for males, females, and both sexes, in 2006, increasing to 6.92, 5.46, and 6.20 per 1000 population in 2021. After correction for completeness using Model 1, these rates increased to 6.52, 4.58 and 5.54 per 1000 population in 2006, and 7.16, 5.66, and 6.39 per 1000 population in 2021. Following correction for completeness using Model 2, the rates increased to 6.63, 4.56, and 5.57 per 1000 population in 2006, and 7.28, 5.73, and 6.49 per 1000 population in 2021.

Table 2 **Crude death rate by sex, 2006–2021 (per 1000 population)**

Year	Before correction for completeness			After correction for completeness by Model 1 adjustment			After correction for completeness by Model 2 adjustment		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
MOHME death registration system									
2006	4.39	5.24	3.51	5.56	6.65	4.48	5.59	6.72	4.47
2007	4.37	5.17	3.56	5.16	5.91	4.10	5.16	5.91	4.10
2008	4.25	4.98	3.49	5.24	6.20	4.30	5.29	6.29	4.31
2009	4.18	4.97	3.38	5.13	6.08	4.18	5.16	6.14	4.18
2010	4.24	5.01	3.46	5.09	6.04	4.15	5.11	6.09	4.14
2011	4.15	4.77	3.51	5.13	5.89	4.39	5.11	5.88	4.36
2012	4.02	4.64	3.38	4.90	5.63	4.19	4.94	5.67	4.20
2013	4.12	4.73	3.50	4.86	5.58	4.17	4.92	5.65	4.20
2014	4.18	4.81	3.53	4.74	5.45	4.07	4.90	5.61	4.19
2015	4.16	4.78	3.53	4.71	5.41	4.04	4.83	5.54	4.13
2016	4.25	4.82	3.67	4.76	5.39	4.15	4.87	5.51	4.24
2017	4.32	4.86	3.77	4.57	5.17	4.01	4.81	5.43	4.19
2018	4.31	4.85	3.75	4.59	5.20	4.03	4.84	5.46	4.22
2019	4.55	5.16	3.93	4.87	5.55	4.23	5.13	5.83	4.43
2020*	4.37	4.94	3.77	4.62	5.26	4.02	4.62	5.53	4.20
2020**	5.77	6.51	5.00	5.96	6.76	5.19	6.06	6.88	5.26
2021*	4.63	5.23	4.02	4.94	5.59	4.32	5.19	5.87	4.54
2021**	6.17	6.89	5.44	6.38	7.14	5.64	6.48	7.27	5.72
NOCR death registration system									
2006	4.36	5.04	3.65	5.54	6.52	4.58	5.57	6.63	4.56
2007	4.40	5.03	3.74	5.17	5.79	4.28	5.48	6.02	4.40
2008	4.51	5.08	3.92	5.44	6.27	4.64	5.45	6.35	4.60
2009	4.47	5.02	3.89	5.34	6.13	4.58	5.33	6.17	4.53
2010	4.56	5.15	3.96	5.35	6.15	4.56	5.33	6.18	4.51
2011	4.54	5.11	3.96	5.43	6.14	4.73	5.36	6.10	4.65
2012	4.36	4.94	3.77	5.17	5.86	4.50	5.16	5.87	4.47
2013	4.51	5.11	3.90	5.18	5.88	4.50	5.19	5.91	4.50
2014	4.35	4.93	3.76	4.89	5.56	4.27	5.02	5.70	4.36
2015	4.39	5.00	3.76	4.90	5.60	4.25	5.00	5.71	4.31
2016	4.35	4.90	3.79	4.85	5.47	4.26	4.95	5.58	4.33
2017	4.32	4.84	3.78	4.57	5.16	4.02	4.79	5.40	4.18
2018	4.36	4.89	3.82	4.64	5.24	4.09	4.88	5.50	4.27
2019	4.48	5.04	3.89	4.80	5.44	4.20	5.07	5.75	4.40
2020**	5.85	6.62	5.07	6.05	6.86	5.26	6.15	6.99	5.33
2021**	6.20	6.92	5.46	6.39	7.16	5.66	6.49	7.28	5.73

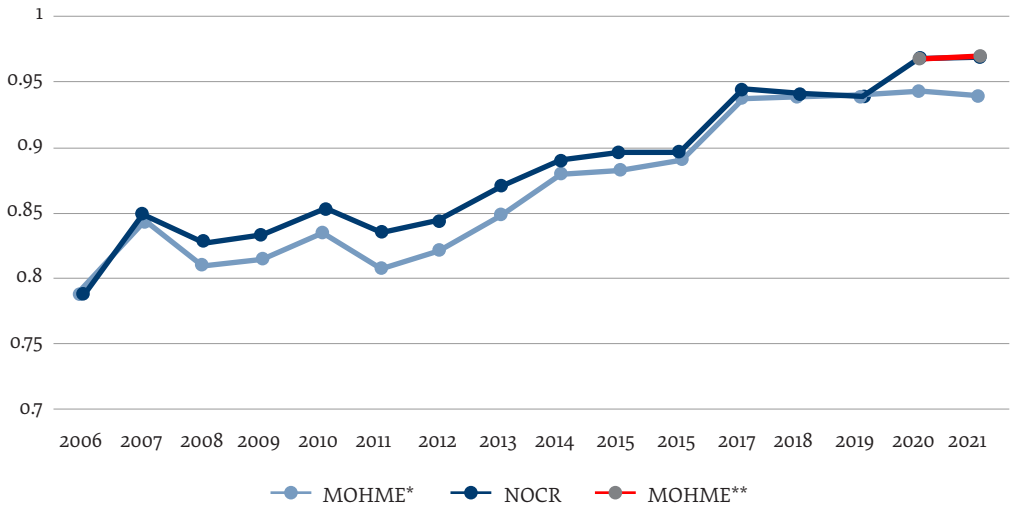
**Excluding COVID-19 **Including COVID-19*

Discussion

This study assessed the completeness of Islamic Republic of Iran's death registration systems from 2006 to 2021. It examined the crude death rates in both systems before and after applying completeness correction through these models.

Model 1 outperformed Model 2 because of its incorporation of under 5 mortality completeness, which significantly improves the accuracy and reliability of mortality estimates. This inclusion allows better representation of actual mortality patterns, addresses underreporting, and provides a more comprehensive understanding of health trends, particularly among vulnerable populations.

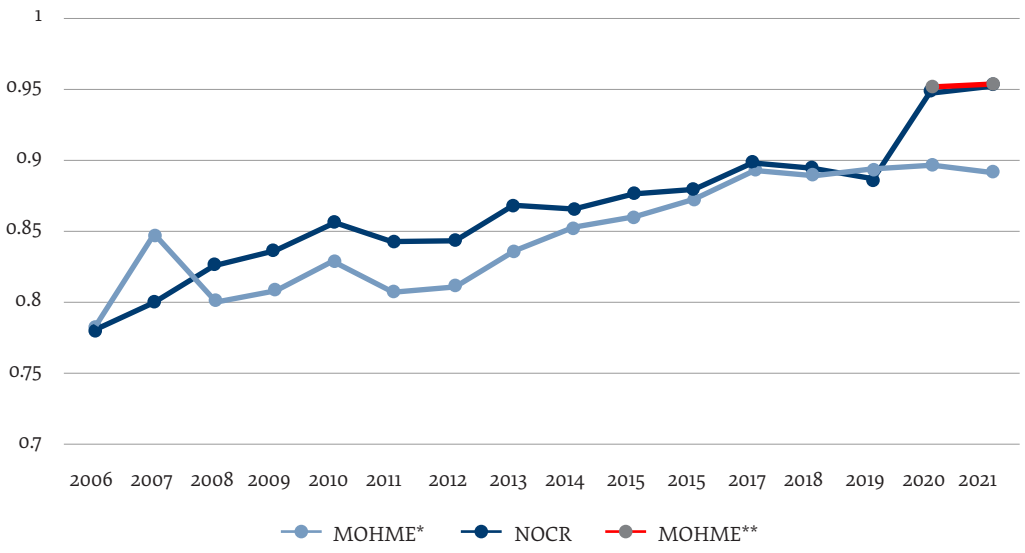
Figure 1 Trend of completeness of the death registration system (Model 1) for both sexes, 2006–2021 (*excluding COVID-19, **including COVID-19)



Our findings indicate that underreporting of mortality from all causes has been a significant public health concern in Islamic Republic of Iran over the past decade. The crude death rate in Islamic Republic of Iran increased from 4.39 per 1000 population in 2006 to 6.17 per 1000 population in 2021. Similarly, data from the NOCR show an increase from 4.36 in 2006 to 6.20 per 1000 population in 2021. Despite improvements in reporting completeness, crude death rates for females remained below 4 per 1000 population in 2019 in both systems.

Compared with the 2019 GBD study results, the crude death rate in Islamic Republic of Iran increased from 4.39 per 1000 population in 2006 to 4.55 per 1000 population in 2019, based on the MOHME death registration system. The NOCR reported an increase from 4.36 per 1000 population in 2006 to 4.48 in 2019, while the Institute for Health Metrics and Evaluation – Global Burden of Diseases (IHME-GBD) reported an increase from 4.53 per 1000 population in 2006 to 4.63 per 1000 population in 2019. For males and females, respectively, the crude death rate increased from 5.24 and 3.52 per 1000 population in 2006 to 5.16 and 3.93 per 1000 population in 2019, based on the MOHME. The NOCR reported rates of 5.04 per 1000 population for males in both years, with an increase for females from 3.65 per 1000 population in 2006 to 3.89 per 1000 population in 2019. According to the IHME-GBD,

Figure 2 Trend of completeness of the death registration system (Model 2) for both sexes, 2006–2021 (*excluding COVID-19, **including COVID-19)



the rates for males and females changed from 5.39 and 3.64 per 1000 population in 2006 to 5.24 and 4.63 per 1000 population in 2019, respectively *(26)*.

This study provides a comprehensive assessment of the completeness of death registration in Islamic Republic of Iran. Existing models rely on 2 key assumptions – stable population and minimal migration – to address underreporting in death registration systems *(12)*. However, given the substantial demographic shifts in Islamic Republic of Iran over the past 4 decades, new methods have been applied to address the underreporting of deaths.

The study findings reveal a consistent improvement in death registration completeness for both the MOHME and NOCR systems in Islamic Republic of Iran from 2006 to 2021. Models 1 and 2 demonstrate this positive trend across both sexes and the overall population. Notably, Model 2 and the NOCR system show more significant improvements in completeness for males than females, suggesting potential disparities in registration practices. The completeness rate increased from 79% in 2006 to 94% in 2021. In comparison, a previous study estimated lower completeness rates for child and adult deaths in 2001 and 2004 *(9)*.

These findings indicate substantial progress in reducing underreporting of deaths and improving the validity and reliability of death registration indicators. Effective measures implemented by the deputy for health of MOHME have contributed to this positive trend, earning recognition from WHO. This signifies improved accuracy and reliability of health data in Islamic Republic of Iran.

According to the International Completeness of Death Registration (ICDR) dataset, Islamic Republic of Iran has achieved near-complete coverage, with an estimated death registration completeness rate of approximately 100%. In contrast, other countries in the Persian Gulf Region have reported relatively lower completeness rates, with an estimated coverage of 80% in Iraq, 73% in Kuwait, 53% in Qatar, 71% in Bahrain, 42% in United Arab Emirates, 63% in Oman, and 59% in Saudi Arabia (*27,28*). These findings highlight Islamic Republic of Iran's comprehensive efforts in documenting and reporting mortality data, setting it apart from its regional counterparts.

When examining crude death rates before and after completeness correction using both models for the 2 death registration systems, a clear pattern emerges – mortality rates are consistently higher among males than females. The correction for completeness resulted in increased crude death rates for both systems, emphasizing the importance of accurate data refinement in mortality statistics.

The completeness of death registration systems in Islamic Republic of Iran is generally acceptable but varies significantly across provinces. This variability is influenced by socioeconomic development, literacy rates, and cultural factors. Provinces with higher socioeconomic development and literacy rates tend to have better completeness. In remote areas without official cemeteries, death certificates are not mandatory, and government subsidies may unintentionally discourage families from registering deaths. Together, these factors contribute to disparities in death registration completeness across Islamic Republic of Iran. Addressing these challenges through targeted policies and interventions is crucial to improving the overall quality and completeness of mortality data *(28,29)*.

Although we aimed to conduct an extensive assessment of death registration completeness, this study had several limitations. The first limitation was the unavailability of mortality data in the MOHME records for specific provinces, notably Tehran (until 2014) and Isfahan (2007–2010). Second, age- and sex-disaggregated population data for intercensal years were estimated by the SCI, which may have introduced uncertainties. These limitations highlight the need for continuous evaluation and refinement of data collection methodologies. Third, the study period included the COVID-19 pandemic period, which altered mortality patterns, leading to excess deaths and further complicating the analysis.

Efforts to improve death registration completeness and enhance the accuracy of mortality data represent significant advancements in informing evidence-based public health strategies and interventions in Islamic Republic of Iran.

Conclusion

Accurate mortality data and trends are essential for public health planning and policymaking. Producing high-quality mortality statistics based on death registration requires proven scientific methods, rigorous data quality checks, and necessary adjustments – all of which demand significant technical capacity.

In this study, we introduced a new method for assessing the quality of mortality data and estimating plausible mortality indicators for Islamic Republic of Iran over the past 16 years. Our results indicate that the completeness of mortality data improved from 80% to 96% during the study period.

For future research, we recommend that the impact of excess mortality due to the COVID-19 pandemic be analysed separately, particularly in relation to completeness coverage and core mortality indicators.

Funding: None.

Conflict of interest: None declared.

Tendances historiques de l'exhaustivité de l'enregistrement des décès en République islamique d'Iran

Résumé

Contexte : Les statistiques sur la mortalité sont essentielles pour la planification, l'élaboration des politiques et la prise de décision en matière de santé publique. Toutefois, la sous-notification de la mortalité constitue un problème majeur en République islamique d'Iran.

Objectif : Analyser les tendances de la mortalité, les taux bruts de décès et l'exhaustivité de leur enregistrement dans le pays.

Méthodes : Nous avons recueilli et analysé les indicateurs de mortalité pour la République islamique d'Iran entre 2006 et 2021.

Résultats : Le taux d'exhaustivité de l'enregistrement des décès a constamment augmenté, passant d'environ 80 % en 2006 à 94 % en 2021, pour les deux sexes. Cependant, ce taux variait selon la province. Quant aux taux de mortalité, ils étaient plus élevés chez les hommes que chez les femmes.

Conclusion : La constance de l'exhaustivité de l'enregistrement des décès différait considérablement d'une province à l'autre. Il est donc nécessaire de mettre en place des politiques et des interventions pour remédier à ces disparités et améliorer la qualité et l'exhaustivité globales des données sur la mortalité en République islamique d'Iran.

الاتجاهات التاريخية في اكتمال تسجيل الوفيات في جمهورية إيران الإسلامية

إلهة كظمي، بريسا رضانزاد أصل، بتول رباني، أردشير خسروي

الخلاصة

الخلفية: تعتبر إحصاءات الوَفَيات مسألة أساسية للتخطيط الصحي العام، ووضع السياسات، واتخاذ القرارات. ومع ذلك، شهدت جمهورية إيران الإسلامية نقصًا مقلقًا في الإبلاغ عن الوَفَيات.

الأهداف: هدفت هذه الدراسة الى تحليل اتجاهات الوَفَيات ومُعَدَّلات الوَفَيات الإجمالية، واكتمال تسجيل الوَفَيات في جمهورية إيران الإسلامية

طرق البحث: حصلنا على مؤشرات الوَفَيات لجمهورية إيران الإسلامية في الفترة من 2006 إلى 2021، وحللناها.

النتائج: ازداد اكتمال تسجيل الوَفَيات باطراد من قرابة 80٪ في عام 2006 إلى 94٪ في عام 2021، وذلك لكلا الجنسين. وجاءت معدلات الوَفَيات أعلى لدى الذكور منها لدى الإناث.

الاستنتاجات: تَفاوَت الاتساق في اكتمال تسجيل الوَفَيات تفاوتًا كبيرًا بين المحافظات، لذا، ثمة حاجة إلى سياسات وتدخلات لمعالجة هذه التفاوتات وتحسين الجودة الإجمالية لبيانات الوَفَيات في جمهورية إيران الإسلامية واكتمالها.

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