Elderly, health and socio-demographic profile in Iraq, the context of conflict, violence and social exclusion, systematic review

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ABSTRACT

Background: The elderly segment of the population in Iraq are finding it increasingly difficult to cope with daily life as the country's security conditions worsen. Continuing violence and the consequent mass displacement has had a debilitating effect on the health and psychological conditions of the elderly.

Objectives: To study the elderly health profile in Iraq in the context of violence, conflict and social exclusions. To assess response of health care system health care services (to elderly needs, problems and sickness).

Methodology: A systematic review research design was carried out by using multiple search engines utilizing specific key words relevant to the elderly health profile and direct interview with experts, as well as official reports of Governmental and NGOs. Multiple Electronic databases were carefully investigated, through a pre-defined search strategy. Additional references from the bibliographies of retrieved articles and experts in the area were approached.

Selection Criteria: Only original research articles seeking to identify the elderly health and conflicts, Iraq, were included. The initial literature search identified 30 papers. Of these, 13 original articles met the selection criteria, and directly related to human cost and health relevance of conflict in Iraq. All were type II evidence population-based studies. The methodological qualities of included studies were assessed using the Downs and Black check-list.

Results: Elderly related demographic data showed that Age group (55-64 years) equal to 4.2% of total Iraqi population (male 652,973/female 713,662), Age group 65 years and over: 3.2% (male 487,841/female 561,797) (2014 est.) 2.8 percent of Iraq's population were 65 and older, the most recent year for which figures were available. Population projections reveal that the total number of women 55 years and above in Iraq is estimated at about one million women; which comprise around 6.8 percent of total women in Iraq, and about 53 percent of total elderly population aged 55 years and above. The results of I-WISH survey revealed that 43.3 percent of these women are widowed, 3.3 percent are unmarried and 23.1 percent are heads of households. About 52.1 percent of women 55+ needed health care during the month that preceded the survey. About 60.5 percent of these women got it from government health facilities, of which 30 percent reported that quality of service was good, while 18.7 percent reported that quality of the service was bad. About 58.6 percent found it hard trying to get government health care. 64.5 percent of elderly women 55+ were concerned about the future for different reasons. About 40.6 percent reported to be concerned due to the likelihood of leaving her usual residence due to health reasons. Around 53.5 percent were worried not to have enough money for long term health care, 49.3 percent were concerned to have to become a burden on her family, 53 percent were concerned about the increasing cost of health care and not having enough money to cover it, and 29.9 percent were afraid to go to an elderly house. About 11.3 percent of women 55 years and above in Iraq have experienced some kind of verbal violence by family members during the year that preceded the survey. Conclusion The elderly population in Iraq continue to be victims of non-responding health care system in terms of: High numbers of elderly "bed blockers" at the main acute hospitals. (Cost). Lack of Elderly Rehabilitation Centers. (Transitional care). Lack of Local Geriatricians or physicians trained in geriatrics. Slowly developing

geriatric services. Lack of Geriatric teaching in medical school's curriculum. Under developed community services model. (Not ideal) UN needs to provide equal service delivery among all sectors. Geographic variations, i.e. accessibility and quality of services. Lack of emergency hotlines for older persons. Lack of trained geriatric nursing services; they are directly and indirectly victimised by long term conflicts and never ending violence cycles.

Recommendation: Setting up a sustainable national elderly protection and care program through framework of stakeholders at multi sectoral level. Developing elderly care policies to address care access, care cost, care quality and other gaps. Recognizing the elderly population as fragile, vulnerable victims in the conflict and violence context.

Key words: Elderly, Health Profile, Iraq, conflict

Introduction

The world is experiencing a major demographic transformation globally and the Middle East is not an exception. Today, about two thirds of all older people are living in the developing world; mainly Asia, and particularly China and India. In the Arab countries the number of elderly is increasing due to the improvement in health care services as well as the eradication of most of the infectious diseases that were causing early death (1).

Elderly people in Iraq in the context of long term conflicts and repeated cycles of violence are finding it increasingly difficult to cope with daily life as the country's security conditions worsen. Continuing violence and the consequent mass displacement has had a debilitating effect on the health and psychological conditions of the elderly, advise the specialists. There are no reliable statistics available for the number and conditions of elderly people in Iraq but aid agencies say that it is the elderly who find it most difficult to cope with displacement (2). As a result, they have developed illnesses which, with a lack of medical assistance, can lead to death.

Elderly are a fragile and vulnerable segment of population, (like children and need especial care). "Without a proper diet, medical assistance, pension and welfare payments, aged people have been indirectly targeted by increasingly violence in Iraq,(3)" according to Iraq Aid Association (IAA). "With constant moving to flee sectarian violence, elderly in Iraq are encountering accelerated hardships of getting their pensions, their monthly food rations and are even targeted by insurgents or militants. Those unable or unwilling to flee their homes become easy targets for fighters.

The vast majority of the elderly group are encountering delayed or even not receiving needed care because of cost. Although the most important factor affecting the ability to use health services in the non-elderly is lack of insurance, other factors have also emerged. Factors highly correlated with lack of insurance, including race, income, and other sociodemographic characteristics, have been associated with lower health care use in younger populations (4-6). Cost appears to be one of the major factors associated with lack of access to care. Even in high standard health care system settings like the USA, between 1995 and 1997, approximately 11% of Medicare beneficiaries reported delaying care because of cost or because they had no specific source of care (7). Because out-of-pocket expenses are the greatest financial burden for Medicare recipients, issues of cost in the elderly are primarily related to insurance coverage supplemental to Medicare. Type of insurance has been reported to be independently related to both use of health services and medical outcomes (8,9). In addition to lack of complementary health insurance, evidence is accumulating that other sociodemographic factors may affect the health care services received by individuals aged 65 years and older, including race, education, age, and gender.(10-14) It is also becoming evident that satisfaction with provider services may impact perceptions of access to health care (15,16) and clinical outcomes (17,8). Socioeconomic indicators and nature of illness were the most pervasive determinants of health care seeking behavior among the elderly, overriding age and sex, and in terms of health-care expenditure, the nature of illness and quality of service provided ranked the major determinants (19).

Objectives

Elderly health profile in Iraq in the context of violence, conflict and social exclusions. To assess response of health care system health care services (to elderly needs, problems and sickness).

Methodology

Systematic review research design was carried out by using multiple search engines utilizing specific key words relevant to elderly health profile, Iraq, conflicts and so on with direct interview with experts, as well as official reports of Governmental and NGOs. Multiple Electronic databases were carefully investigated, through a pre-defined search strategy. Additional references from the bibliographies of retrieved articles and experts in the area were approached.

Selection Criteria

Only original research articles seeking to identify the (elderly health and conflicts, Iraq) were included. By defining the review question and developing criteria for including studies, we searched for studies, selected studies and collected data, and assessed risk of bias in included studies. The initial literature search identified 30 papers. Of these, 13 original articles met the selection criteria, and directly related to human cost and health relevance of conflict in Iraq. All were type II evidence - population-based studies. The methodological qualities of included studies were assessed using the Downs and Black checklist.

Findings

Elderly related demographic data in Iraq showed that the age group 55-64 years represents about 4.2% of the total Iraqi population (male 652,973/female 713,662) and for those of 65 years and over: 3.2% of total Iraqi population (male 487,841/female 561,797) (2014 est.). While 2.8 percent of the total Iraqi people were 65 years old and older in 2005. Population projections reveal that the total number of women 55 years and above in Iraq is estimated to about one million women; which comprises around 6.8 percent of total women in Iraq, and about 53 percent of total elderly population aged 55 years and above. The results of I-WISH survey also showed that 43.3 percent of these women are widowed, 3.3 percent are unmarried and 23.1 percent are heads of households. The results also showed that elderly women live in households with an average of 6.5 members, amongst 13.4 percent who live in households with average household size totaled to less than 3 persons. About 76.2 percent of these women live in urban areas and 23.8 percent live in rural areas. The results of the survey reveal also that 72.4 percent of elderly women are illiterate and only 5.4 percent of them have a diploma degree or higher. About 35 percent of these women reported that their physical conditions are either bad or very bad and there are no differences in women's situation in Kurdistan and other governorates of Iraq. About 11 percent of these women reported that they are unhappy with their life in general of whom 6.4 percent live in Kurdistan and 11. 4 percent in other governorates. Furthermore, 12.9 percent take care of disabled, sick or weak members of the household, amongst 46.5 percent who needed help in this task but couldn't find it. 31.1 percent of these women needed help in eating, drinking, wearing clothes, moving around and using the bathroom in the year that preceded the survey. The main source of this help came from family members (88.8%), while 0.5 percent received help from government health care workers. Family forms the main safety net for elderly women in Iraq; about 83.6 percent of women 55+ reported that family members such as sons, daughters, grandsons and others provided them with help regularly when needed. Furthermore, about 66.9 percent provided financial and material assistance, versus about 71.2 percent provided health care, and 68.4 percent provided company when needed.

Health Care Services for the Elderly

About 52.1 percent of women 55+ needed health care during the month preceding the survey. About 60.5 percent of these women got it from government health facilities, of which 30 percent reported that quality of service was good, while 18.7 percent reported that quality of the service was bad. About 58.6 percent found it hard trying to get government health care. This difficulty of finding government health care increases in other governorates (60.9%) compared with Kurdistan region (48.0%). Those who faced difficulties reported different reasons for that; due to inability to reach the service (40.6%), or due to lack of enough money to get help (47.7%), and 8.8 percent could not find anyone to take them to the health facility. There is a general belief that health care is improving in Iraq although there are differences by environment and region.

Covering the cost of health care

About 40.3 percent of women 55+ faced difficulties to cover the cost of health care. It is worth noting that this percentage is

higher in Kurdistan region (44.2%) compared with other Iraqi governorates (39.4%). Only 14.3 percent of women 55+ suffer from a health situation that requires medical treatment or medication that government or NGOs cover all/part of the required cost. Concerns about future: 64.5 percent of elderly women 55+ were concerned about the future for different reasons. About 40.6 percent reported to be concerned due to the likelihood of leaving her usual residence due to health reasons. Around 53.5 percent were worried not to have enough money for long term health care, 49.3 percent were concerned to have to become a burden on her family, 53 percent were concerned of the increasing cost of health care and not having enough money to cover it, and 29.9 percent were afraid to go to elderly houses.

Violence

About 11.3 percent of women 55 years and above in Iraq have experienced some kind of verbal violence by family members during the year preceded the survey. About 12.2 percent were not allowed to move freely, 12.9 percent have been told that they cause burden on the family, and 17.1 percent were left alone. Women who had income were less exposed to violence, 8.4 percent of them were exposed to verbal violence and 11.2 percent were not allowed to move freely, 11.7 percent were told they are a burden on the family, and 16.9 percent were left alone.

Elderly women

Population projections according to CSO reveal that the total number of women 55 years and above in Iraq is estimated to be about one million women; which comprise around 6.8 percent of total women in Iraq, and about 53 percent of total elderly population aged 55 years and above. The results of I-WISH survey also showed that 43.3 percent of these women are widowed, 3.3 percent are unmarried and 23.1 percent are heads of households. The results also showed that elderly women live in households with an average of 6.5 members, amongst 13.4 percent who live in households with average household size totaled to less than 3 persons. About 76.2 percent of these women live in urban areas and 23.8 percent live in rural areas. The results of the survey reveal also that 72.4 percent of elderly women are illiterate and only 5.4 percent of them have a diploma degree or higher. Elderly women in Iraq have gone through two fold pressure; on one hand the need to be more dependent due to their increasing needs for health and social care; but on the other hand they are requested to take care of other members especially disabled, sick and weak family members. About 51.35 percent of these women reported that their physical conditions are either bad or very bad, and there are no differences in women's situation in Kurdistan and other governorates of Iraq. About 11 percent of these women reported that they are unhappy with their life in general of whom 6.4 percent are in Kurdistan and 11.4 percent in other governorates. Furthermore, 12.9 percent take care of disabled, sick or weak members of the household, amongst 46.5 percent who needed help in this task but couldn't find it. As for the need for help in daily activities, the results of the survey showed that 31.1 percent of these women needed help in eating, drinking, wearing clothes, moving around and using the bathroom in the year that preceded the survey. The main source of this help came from family members (88.8%), while 0.5 percent received help from government health care workers. Family forms the main safety net for elderly women in Iraq; about 83.6 percent of women 55+ reported that family members such as sons, daughters, grandsons and others provided them with help regularly when needed. Furthermore, about 66.9 percent provided financial and material assistance, versus about 71.2 percent who provided health care, and 68.4 percent provided company when needed. In regard to health care, about 52.1 percent of women 55+ needed health care during the month preceding the survey. About 60.5 percent of these women got it from government health facilities, of whom 30 percent reported that quality of service was good, while 18.7 percent reported that quality of the service was bad. About 58.6 percent faced a hard time trying to get government health care. This difficulty of 52 finding government health care increases in other governorates (60.9%) compared with Kurdistan region (48.0%). Those who faced difficulties reported different reasons for that; due to inability to reach the service (40.6%), or due to lack of enough money to get help (47.7%), and 8.8 percent could not find anyone to take them to the health facility. There is a general belief that health care is improving in Iraq although there are differences by environment and region. About 40.3 percent of women 55+ faced difficulties to cover the cost of health care. It is worth noting that this percentage is higher in Kurdistan region (44.2%) compared with other Iraqi governorates (39.4%). About 12.2percent were not allowed to move freely, 12.9 percent have been told that they cause burden on the family, and 17.1 percent were left alone. Women who had income were less exposed to violence, 8.4 percent of them were exposed to verbal violence and 11.2 percent were not allowed to move freely, 11.7 percent were told they are a burden on the family, and 16.9 percent were left alone have no income.

Regarding mortality rates of NCD among elderly in Basra governorate south of Iraq, the study revealed that most of NCDs mortalities increased on 2007 comparing with 1978.

Table 1: shows frequency distribution of health care services (access and cost) provided to elderly as per their perception all over Iraq

| No | Variable | lraq Total (General) percent | Other governorate | Kurdistan governorate |
|----|---|------------------------------------|----------------------|--------------------------|
| 1. | % of women 55+ who reported that their general Health status is bad or very bad | 35.4 | 35.1 | 36.5 |
| 2. | % of women 55+ who are not satisfied at all with their life | 10.51 | 11.4 | 6.4 |
| 3. | % of women 55+ who needed health care during the month preceding the survey | 52.1 | 52.0 | 52.5 |
| 4. | % of women 55+ who received health care from public health facility amongst those who needed health care during the last month before Survey | 60.5 | 60.7 | 59.8 |
| 5. | % of women 55+ who faced difficulties to get public health care amongst those who received health care from public health facility | 58.6 | 60.9 | 48.0 |
| 6. | % of women 55+ who faced difficulties to cover the cost of health status during the 12 months preceding the survey | 40.3 | 39.4 | 44.2 |
| 7. | % of women 55+ who do not have an income | 34.0 | 32.5 | 41.0 |

Health Survey- (I-WISH) Iraq Elderly Women)(25)

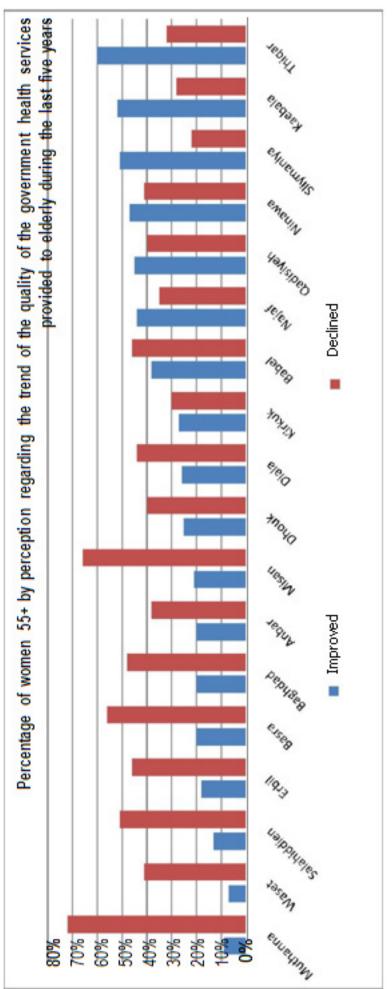


Figure 1: Trend of quality of Governmental health services provided to elderly population in Iraq. (http://www.irinnews.org/report)

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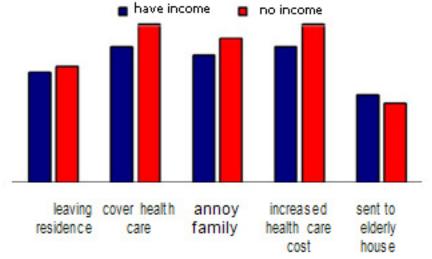
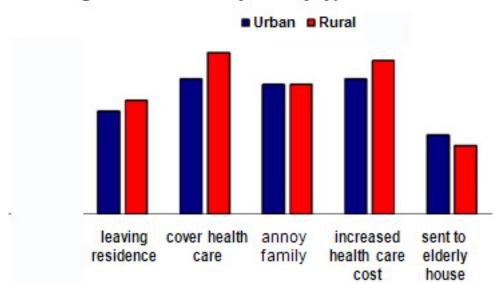


Figure 2: Distribution of elderly population in Iraq based on income and Future concerns

Health Survey- (I-WISH) Iraq Elderly Women)(25)

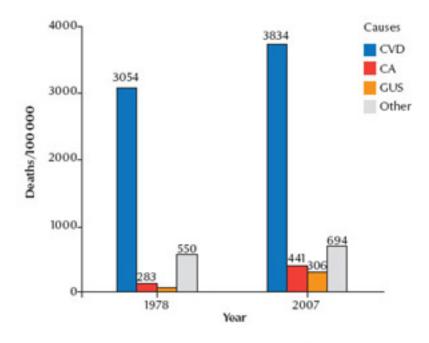
Figure 3: Distribution of elderly population in Iraq by Urban- Rural and Future concerns



Percentage of women 55+ by locality type and future concerns

(Health Survey- (I-WISH) Iraq Elderly Women)

Figure 4: Death Rate of selected cause of Death among elderly people above 65 age in Basra governorate (1978 and 2007).(26)



Death rates for selected causes of death among people aged ≥ 65 years in Basra, 1978 and 2007 (CVD = circulatory diseases, CA = neoplasms, GUS = genitourinary diseases)

Discussions

The study revealed that the elderly percentage in Iraq is considerably higher than UAE (20), but much less than 12.6 percent of the U.S. population and 17 percent in Japan are 65 or older (21). Elderly in Iraq kept suffering multiple burdens, as they are a truly vulnerable and fragile segment, and due to the lagging of response of health care system in Iraq to needs and problems, the violence and the conflicts added major burden to their suffering leaving them victims to shortage of care, illnesses, helplessness, and pushing them to facing their hard fate lonely. Some of the elderly were even left as direct victims to the conflicts and violence widely spread in the country(22).

The hard circumstances that the country faced - the fighting and killings, the displacement - all of these factors have left senior citizens homeless. Aging Iraqis traditionally lived with relatives, but as conditions in the nation have worsened, a new phenomenon has popped up: the old folks' home (23). The elderly in Iraq have been dealt a very bad hand and short of a miracle very little can be done to help them," according to Iraqi Medical Association. "Sometimes they just close the door of the house and wait to die slowly." The most vulnerable senior citizens are in frail health with little or no income and cannot live independently. Many have no children to support them or have never married. Adding to their misery, Iraq's devastated health care system makes it nearly impossible for Baghdad's elderly residents to receive adequate medical treatment. The lack of potable water and electricity here further threatens their welfare during the sweltering summer months. For Iraqis like 87-year-old Mariam Ansari, who have beaten the odds and endured, self-preservation these days is a daily struggle. Mrs. Ansari lives in a single room with cement walls.

Elderly women in Iraq are gone through twofold pressure; on one hand threatened to be more dependent due to their increasing needs for health and social care; but on the other hand they are requested to take care of other members especially disabled, sick and weak family members. About 35 percent of these women reported that theirre physical conditions are either bad or very bad and there are no differences in women situation in Kurdistan and other governorates of Iraq. About 11 percent of these women reported that they are unhappy with their life in general of whom 6.4 percent in Kurdistan and 11. 4 percent in other governorates. Furthermore, 12.9 percent take care of disabled, sick or weak members of the household, amongst 46.5 percent needed help in this task but couldn't find it. The results of the survey showed that 31.1 percent of these women needed help in eating, drinking, wearing clothes, moving around and using the bathroom in the year that preceded the survey. The main source of this help came from family members (88.8%), while 0.5 percent received help from government health care workers. Family forms the main safety net for elderly women in Iraq; about 83.6 percent of women 55+ reported that family members such as sons, daughters, grandsons and others provided them with help regularly when needed. Furthermore, about 66.9 percent provided financial and material assistance, versus about 71.2 percent provided health care, and 68.4 percent provided company when needed.

Some elderly Iraqis have lost all their relatives over the past few years and now have to fend for themselves. Being unable to work because of age or health conditions, some of them have turned to begging in the streets while others are supported by their neighbors. According to local NGOs and doctors, the general health of elderly people has been fast worsening in the past three years. "Limited healthcare access, deteriorating services and deteriorating social support networks are making elderly people more vulnerable to diseases and worsening their current illnesses,". Many elderly people in Iraq were suffering various heart diseases which were under control before the US-led invasion of 2003 but now, with a dire lack of medicines and equipment in the country, were going untreated. "For those living in displaced camps or improvised tents, the situation is critical as they cannot reach hospitals on time and so might die for lack of medical assistance (24).

Conclusion

The elderly population in Iraq continue to be victims of a nonresponding health care system in terms of high numbers of elderly "bed blockers" at the main acute hospitals. (Cost); Lack of Elderly Rehabilitation Centers. (Transitional care); and Lack of Local Geriatricians or physicians trained in geriatrics. There are slowly developing geriatric services but lack of Geriatric teaching in medical school's curriculum. There is an under developed community services model. (Not ideal) The UN needs to provide equal service delivery among the needy sector. There are geographic variations, in accessibility to and quality of services. There is lack of emergency hotlines for older persons, lack of trained geriatric nursing services, and the elderly are directly and indirectly victimised by long term conflicts and never ending violence cycles.

Recommendations

There is a need to formulate a National Strategy for the elderly that will include the following

- 1. Setting up sustainable national elderly protection
- 2. Setting up national care program
- **3.** Involving multisectors of the society in the care

4. Developing elderly care policies to address care access, care cost, care quality& other gaps.

5. Recognizing elderly population as fragile, vulnerable victims for the conflict and violence context.

6. Establishing national committee for the care of the elderly.

References

1. Salwa Al Suwiadi.2013, Care-Services-Old-Middle-East-Populations.pdf. http://www.adidubai2013.org/files/pres/Salwa-AlSuwaidi-Health.

2. Irinnnews report.2016. (IRAQ: Elderly most vulnerable to insecurity. http://www.irinnews.org/report/70649/iraq-elderly-most-vulnerable-to-insecurity cited on 04 February 2016.

3. Fatah ahmed.2007, Iraqi Aids association,

www.irinnews.org/.../Iraq-elderly-most-vulnerable-to-in.

4. Keruly JC, Conviser R, Moore RD. Association of medical insurance and other factors with receipt of anti-retroviral therapy. Am J Public Health. 2002; 92:852-857. [PMC free article] [PubMed]

5. Ruiz P. Hispanic access to health/mental health services. Psychiatry Q. 2002; 73:85-91. [PubMed]

6. Strzelczyk JJ, Dignan MB. Disparities in adherence to recommended followup on screening mammography: interaction of sociodemographic factors. Ethn Dis. 2002; 12:77-86. [PubMed 7. Janes GR, Blackman DK, Bolen JC, et al. Surveillance for use of preventive health-care services by older adults, 1995-1997. MMWR CDC Surveill Summ. 1999; 48:51-88. [PubMed]

8. Porell FW, Miltiades HB. Access to care and functional sta-

tus change among aged Medicare beneficiaries. J Gerontol B Psychol Sci Soc Sci. 2001; 56:S69-S83. [PubMed]

9. Hsia J, Kemper E, Sofaer S, et al. Is insurance a more important determinant of healthcare access than perceived health? Evidence from the Women's Health Initiative. J Womens Health Gend Based Med. 2000;9: 881-889. [PubMed]

10. Schneider EC, Zaslavsky AM, Epstein AM. Racial disparities in the quality of care for enrollees in medicare managed care. JAMA. 2002; 287:1288-1294. [PubMed]

11. Porell FW, Miltiades HB. Access to care and functional status change among aged Medicare beneficiaries. J Gerontol B Psychol Sci Soc Sci. 2001; 56:S69-S83. [PubMed]

12. Gornick ME. The association of race/socioeconomic status and use of Medicare services: a little-known failure in access to care. Ann N Y Acad Sci. 1999; 896: 497-500. [PubMed]

13. Janes GR, Blackman DK, Bolen JC, et al. Surveillance for use of preventive health-care services by older adults, 1995-1997. MMWR CDC Surveill Summ. 1999; 48:51-88. [PubMed]

14. Escarce JJ, Epstein KR, Colby DC, Schwartz JS. Racial differences in the elderly's use of medical procedures and diagnostic tests. Am J Public Health. 1993; 83:948-954. [PMC free article] [PubMed

15. Akinci F, Sinay T. Perceived access in a managed care environment: determinants of satisfaction. Health Serv Manage Res. 2003; 16:85-95. [PubMed]

16. Meng YY, Jatulis DE, McDonald JP, Logorrhea AP. Satisfaction with access to and quality of health care among Medicare enrollees in a health maintenance organization. West J Med. 1997; 166:242-247. [PMC free article] [PubMed]

17. Harris LE, Luft FC, Rudy DW, Tierney WM. Correlates of health care satisfaction in inner-city patients with hypertension and chronic renal insufficiency. Soc Sci Med. 1995; 41:1639-1645. [PubMed]

18. Alazri MH, Neal RD. The association between satisfaction with services provided in primary care and outcomes in Type 2 diabetes mellitus. Diabetes Med. 2003; 20:486-490. [PubMed] 19. Abdulraheem IS1 Health needs assessment and determinants of health-seeking behavior among elderly Nigerians: a house-hold survey. Ann Afr Med. 2007 Jun; 6(2):58-63.

20. Aisha Zayed Al Ali* (Aging in the UAE and Services Available for the Elderly: Structured Interviews with Experts in the Field Policy Brief No. 34 February 2013, Dubai school of government

21. WHO | Iraq health situation reports, www.who.int/hac/crises/irq/sitreps/en/

22. The Washington Times, June 27, 2007. , Sick, elderly Iraqis living on edge, Iraq, http://www.globalaging.org/ armedconflict/countryreports/middleeast/iraq/ME%20Sick, %20Elderly%20Iraqis_Washington%20Times%20Report%20 2007.pdf.

23. Los Angeles times, August 06, 2009. (Grim times for the elderly in Iraq, August 06, 2009|Ned Parker and Caesar Ahmed, http://articles.latimes.com/2009/aug/06/world/fg-iraq-old-age6. 24. Iraq Demographics Profile 2014. CIA World Fact book this page was last updated on June 30, 2015http://www.indexmundi. com/iraq/demographics profile.html.

25. Elderly women in Iraq, survey CSO and UNFP"2011. (Iraq Women Integrated Social and Health Survey- (I-WISH) Iraq Elderly Women; Issues and Statistics. [PDF].

26. H.N. Sadek and N.A.H. Ajeel,East Mediterranean Health Journal, Age-standardized mortality rates by cause in Basra, Iraq: 1978 and 2007