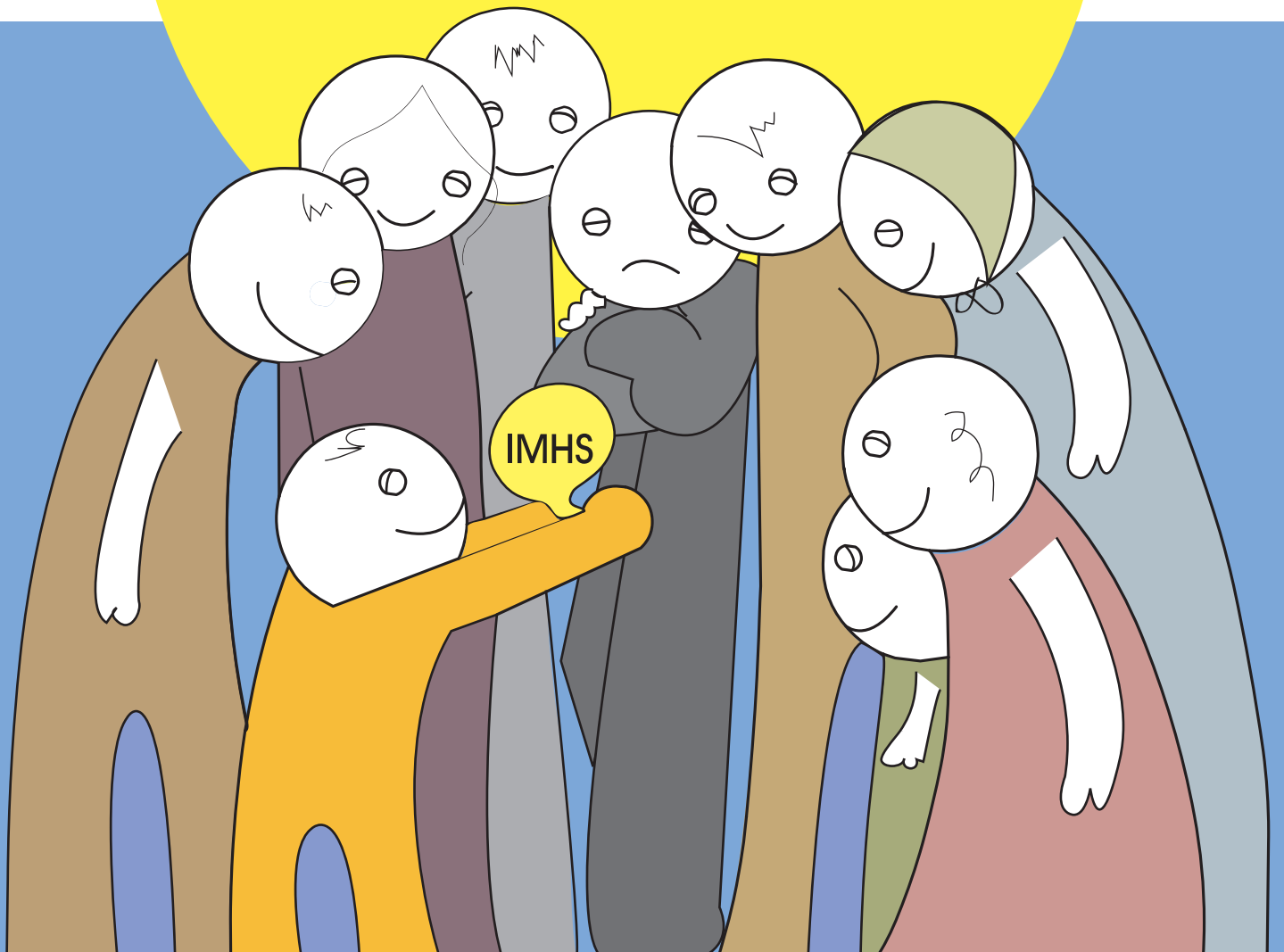


IRAQ MENTAL HEALTH SURVEY

2006/7

مسح الصحة النفسية في العراق





Iraq Mental Health Survey 2006/7 Report

Implementing agencies:

Ministry of Health / Iraq
Central Organization for Statistics and Information Technology, Ministry of Planning and
Development Cooperation
Ministry of Health/Kurdistan Region in Iraq
Kurdistan Regional Statistics Office, Ministry of Planning/Kurdistan Region in Iraq
In collaboration with World Health Organization



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Preface

We are pleased to publish this survey, the first ever of its kind for Iraq, which provides evidence to inform our health policies and strategies about the prevalence of mental health disease and the impact of violence upon the Iraqi people.

This survey should be seen as the first step towards providing mental health evidence-based data for the revision, further development, and the establishment of policies and strategies to strengthen mental health services in Iraq.

The report also addresses the impact of violence on mental health where, as key policy-makers, we acknowledge the importance of such evidence in mobilising the right health and development policies that will also guide the integration of mental health into Primary Health Care.

As Ministers of Health and Ministers of Planning at central and regional levels, and in collaboration with the World Health Organization (WHO), we believe in evidence-based policies and strategies in health and development. Such policies are critical and timely given the intensive work now to rebuild the health system in Iraq.

The Iraqis have suffered more than any other people from decades of war and oppression. There is a great need to conduct in-depth studies in assessing the coping mechanisms utilised by Iraqis in facing great mental pressure, but who still continue to be productive and contribute to society and development through their resilience and will to survive.

As key policy makers we also believe that increased support is required in order to conduct research and surveys on the impact of violence and wars on mental health especially in Iraq, and by studying key community-based interventions, especially those embedded in Primary Health Care, for the most vulnerable and disabled members of the population.

The current survey provides us with an initial indicator of lifetime prevalence, and 12-month and 30-day prevalence rates of mental disorder alongside the experience of trauma.

Such a large survey could not have been completed without the dedication of Iraqi professionals from both the Ministry of Health and the Ministry of Planning at central and regional levels during a difficult time for Iraq. Their determination to work together and complete the study on time is to be commended. We also salute colleagues who lost their lives or were otherwise affected during this endeavour, commemorating particularly the memory of Dr. Louai Haqai, the Director General at the Ministry of Planning.

We commit ourselves to continue such collaborative work at different levels and with several partners in order to ensure that right health policy choices are made and that access to interventions based on evidence is provided to all Iraqis regardless of origin, race, religion, ethnicity, gender or colour.

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Abbreviations

| | |
|----------|--|
| CIDI | Composite International Diagnostic Interview |
| COSIT | Central Organization for Statistics and Information Technology |
| DHS | Demographic and Health Survey |
| DoH | Directorate of Health |
| DSMIV | Diagnostic and Statistical Manual of Mental Disorder Version Four |
| EC | European Commission |
| GAD | Generalised Anxiety Disorder |
| HHQ | Household Questionnaire |
| IASC | Inter Agency Standing Committee |
| ICD | International Statistical Classification of Diseases and Related Health Problems |
| IFHS | Iraq Family Health Survey |
| IMHS | Iraq Mental Health Survey |
| ITF | Iraq Trust Fund |
| KRSO | Kurdistan Regional Statistics Office |
| MoH | Ministry of Health |
| MoH | Ministry of Higher Education |
| MoHK | Ministry of Health/Kurdistan Region |
| MoP | Ministry of Planning |
| MoPK | Ministry of Planning in Kurdistan Region |
| MICS-III | Multiple Indicator Cluster Survey |
| OR | Odd Ratio |
| PHCC | Primary Health Care Centre |
| PSUs | Primary Sampling Units |
| PTSD | Post-Traumatic Stress Disorder |
| SRQ 20 | Self-Reporting Questionnaire |
| UNDG | United Nations Development Group |
| UNDP | United Nations Development Programme |
| UNHCR | United Nation High Commissioner for Refugees |
| WHO | World Health Organization |
| WHO/Iraq | World Health Organization - Iraq office |
| WHO-DAS | WHO-Disability Assessment Schedule |
| WMHS | World Mental Health Survey |
| WQ | Woman Questionnaire |

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- Interviewers,
- Supervisors at the central and local levels,
- Data entry team,
- Statistician and steering committee members.

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Executive Summary

The Iraq Mental Health Survey (IMHS) report provides valuable and previously unavailable information regarding the prevalence of mental disorders in Iraq, the relationship between trauma exposure and mental disorders, the family burden, prevalence of mental disorders in different regions of Iraq and the percentage of treatment utilisation by people suffering from mental disorders and substance use.

Objectives of the Survey

The four main objectives of Iraq Mental health survey (IMHS) were as follow:

- To describe the lifetime, 12-month, and 30-day prevalence rates of mental disorders among those aged 18 years and older;
- To describe the relationship between the prevalence of mental disorders with trauma exposure and socio-demographic characteristics (age , gender, education, etc);
- To evaluate the treatment utilisation rate by people with mental disorders;
- To provide policy and decision-makers reliable, accurate and relevant data for the development of mental health plans and strategies.

Strengths of the Survey

The IMHS used methodology developed by the World Mental Health Survey Initiative and expertly trained staff to implement this survey. It benefited from extensive quality controls throughout the process of data collection, and therefore IMHS results can be compared with other countries and population groups. Regarding mental disorders, IMHS gives clear indications of the lifetime, 12-month and actual situation with an overall response rate of 95.2%. The IMHS therefore provides insights into the lifetime impact of ongoing traumatic situations while shedding some new light on actual trends in mental disorder expression.

Limitations of the Survey

Due to the limited time available and other constraints, it was not possible to do a back translation of the Kurdish version of the CIDI. For logistical reasons, external validation of the diagnosis of identified cases, through an independent psychiatrist, could not be undertaken. Data collection occurred at different times of the year in different regions, once again, due to the security situation. The following conditions were not included: schizophrenia, somatisation disorder, cognitive disorders, and personality disorders. The study could have been influenced by the migration of the population. Widowed, divorced and separated people were regrouped in one category for statistical purposes. The survey covered only adults; children and adolescents were not included due to methodology restrictions and given that the questionnaire is designed for adults.

Results

More than half of respondents (54.4%) were in the young age group (18-34 years). The category *separated, widowed or divorced* was better represented in women than men (12.8% vs. 2.2%). 21.8 % of respondents had no formal education. 40.8% of the population were employed, and the remaining were either students, retired or unemployed.

Lifetime prevalence:

- Women show higher prevalence of *severe depressive episode, agoraphobia without panic disorders, specific phobias and any other affective disorders and any other anxiety disorders*. Also women from the 50-64 group and 65+ group show higher values for the category of *any affective disorders*.
- The oldest age category (65+) shows a higher rate for *severe depressive episode and any affective disorders* and the 35-49 category is higher than other age categories for *dysthymia*.
- Urban residence shows higher prevalence than rural residence for: *severe depressive disorders, dysthymia, agoraphobia without panic disorders, post traumatic stress disorders and any substance disorders*.
- The Kurdistan region of the country shows higher prevalence for: *social phobia, any anxiety disorder and any disorder*.

Twelve-month prevalence:

- Women show higher values for *severe depressive episode, agoraphobia without panic disorder, social phobia, any anxiety disorder and any disorder*. For every significant condition, women show higher values than men. We observe an age effect in the women's category for *moderate depressive episode, dysthymia and any affective disorders*. Women from the 50-64 and 65+ age groups show higher values for the two latter categories while the 35-39 group shows higher values than other groups for *moderate depressive episode*.
- Among the men, the age-group 65+ shows higher values for *severe depressive episode and mild depressive episode*.
- Urban values are higher than rural values for *dysthymia, agoraphobia without panic disorders and post traumatic disorders*.
- *Dysthymia* is higher in the centre/south than in the Kurdistan region, while *social phobia, any anxiety disorders and any disorders* is higher in the Kurdistan region.

30-day prevalence of ICD disorders:

- Women show higher values than men for *severe depressive episode, social phobia, specific phobia and any anxiety disorder* as well for *any disorder*. In the women's category, the 50-64 age-group show higher values for *severe depressive episode, mild depressive episode, and any affective disorder*, while the 18-34 group shows higher values for *obsessive compulsive disorders*.
- Among the men, the age-group 65+ shows higher values for *severe depressive episode and mild depressive episode*.
- Urban values are higher than rural values for *agoraphobia without panic disorders and post traumatic stress disorders*.
- *Panic disorder and generalized anxiety disorder* show higher values in the south/centre compared to the Kurdistan region, while *agoraphobia without panic*

disorder, specific phobia, any anxiety disorder show higher values in the Kurdistan region compared to the south/centre.

Experience of traumas:

- For both 12-month and life time prevalence independently of the number of exposure to traumatic events or gender, the case group shows systematically higher values than the non-case group.
- Considering the lifetime prevalence of trauma experience, except for *capture/kidnapping, imprisoned* and *purposely causing harm to others* every condition is significant. As expected, the case group shows systematically higher value than the non-case group.
- For the 12-month prevalence we observe difference in every condition except for *arrest, life threatening illness* and *purposefully causing harm to others*. Once again, the values for the case group are systematically higher than for the non-case group.
- Except for the category *being beaten by spouse*, where women show higher significant values, in general men show systematically higher exposure to traumatic events.
- The south/centre shows higher values for the following categories: *refugee, internal displacement, exposure to bomb blast, capture, public humiliation, accused of collaboration, beaten by parents as child, beaten by someone else, sexual assault, causing accidental harm to others, witness to killing, death of dear one, family member kidnap, any war related trauma, any trauma* and *other*. The Kurdistan region shows higher values for the categories *life threatening illness* and *others*.

Association between mental disorders and socio-demographic characteristics:

- The group widow/divorced/separated shows systematically higher values for *any affective disorders, any anxiety disorders, and any mental disorders*, in all three lifetime, 12-month prevalence or 30-day prevalence groups.
- The unemployed or retired show the highest values for severe *depressive episode, episode, any affective disorders* and *mild depressive episode*.

Substance use:

- For lifetime and 12-month use of alcohol, men have higher values than women, urban higher than rural; the Kurdistan region higher than the south/centre, married higher than separated/widow/divorced and common in younger age than compared to older age group.
- Harmful use results are quite similar except that south/centre shows higher values than the Kurdistan region and the widow/divorced /separated group shows higher values than the married group.
- Tobacco dependence shows higher values in south/centre, in the 65+ age group, the rural area, separated/divorced/widow/ and low education groups.

Suicidal ideas, treatments and disabilities:

- Among those with *any mental disorder*, 68.39% expressed suicidal ideas. The prevalence is significantly higher in females compared to males. This result is

applicable to all diagnostic categories, except for substance use disorder in which men have higher frequency of suicidal ideas compared to women.

- For 12-month and lifetime prevalence of mental health disorders we observed low rates of treatment received (less than 10%).
- Whether in the affective or anxiety categories, patients with mental disorders show greater levels of disabilities.

Implications for the Future

We need to:

- Close the treatment gap through a comprehensive primary health care system and the development of skills and competencies.
- Promote an approach of disorders based on symptoms rather than syndromes.
- Develop comprehensive psychosocial measures for vulnerable populations.
- Consider substance abuse and suicide prevention as part of the national strategy.
- Develop comprehensive research on the Iraqi population's resiliency skills and the long-term implications of early and repetitive trauma exposure.

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I. Introduction

1. General Framework: The World Mental Health Survey Initiative

Mental health problems and addiction contribute significantly to the global burden of disease. According to the World Health Organisation (WHO), this specific burden will increase over the next decades.

As mentioned in the Inter-Agency Standing Committee (IASC) guideline, armed conflicts cause significant psychological and social suffering to populations. These psychological and social impacts clearly undermine long-term mental health and the psychosocial well-being of the entire population. These impacts also threaten peace and reconstruction.

The World Mental Health Surveys (WMHS) are carried out rigorously in countries around the world in order to collect cross-national information regarding the prevalence and correlates of mental and behavioural disorders. WMHS results can strengthen the development of public health initiatives that will ultimately lead to a reduction of the global burden of mental health.

2. Overview of Current Knowledge on Mental Health Situation in Iraq

2.1. Introduction

Iraq covers an area of 435,055 sq. km. Its population is estimated to be 31.9 million (Central Organisation for Statistics and Information Technology (COSIT), 2008) and the sex ratio (men per hundred women) is 101. The proportion of population under the age of 15 years is 43% (COSIT, 2008), and the proportion of population above the age of 60 years is 6% (COSIT 2008). The literacy rate is 86.9% for men and 70 % for women (COSIT, 2007).

The main languages used in the country are Arabic and Kurdish. The largest ethnic group is Arab (four-fifths), and the second largest ethnic group is Kurdish. The largest religious group is Muslim. The life expectancy at birth is 54.9 years for males and 61.6 years for females (MoH, 2007). The healthy life expectancy at birth is 49 years for males and 52 years for females (WHO, 2004), (WHO Atlas, 2005). Iraq has gone through a period of insecurity, violence, destruction and displacement of the population beside increased reported deaths since March 2003. Furthermore, the day-to-day life for the majority of the population of Iraq

has been associated with multiple deficiencies in the supply of basic necessities like electricity, water, sanitation, food, employment, and access to health services, beside the continuous threats of violence which can be the causes of stress to individuals and families. The United Nations High Commissioner for Refugees (UNHCR) has reported that by the end of 2007, about 1.6 million (2,480,981) of the population was internally displaced and an estimated 2.5 million living as refugees in the neighbouring countries (mainly Syria and Jordan).

Based on World Bank 2004 criteria, the country falls into the lower middle-income group. The proportion of health budget to GDP is 3.2%. The per capita total expenditure on health is 97 international dollars and the per capita government expenditure on health is 31 international dollars (WHO, 2004). Food insecurity is also a major issue. It is estimated that 2.6 million people are found to be extremely poor and vulnerable to food insecurity (WFP, 2008) – United Nations – WFP – Comprehensive Food Security and Vulnerability Analysis (CFSVA) Iraq. If the public distribution system were discontinued, an additional 3.6 million people would be likely to face food insecurity (WFP, 2008)

2.2. Mental health system in Iraq

Assessment of the mental health system was completed in 2005 using the WHO-Assessment Instrument for Mental Health system (WHO-AIMS) format. This has been a significant achievement, as it covers the current mental health situation in six different areas: policy, human resources, research, integration of mental health with primary health care, and inter-sectoral involvement in mental health and public awareness. Since the fall of the previous regime, there have been fundamental changes in the mental health system. Indeed, as an example of these profound changes, a national mental health council was established, and services and human resources development strengthened. WHO-AIMS Iraq highlighted the fact that the majority of beds are provided by mental hospitals, followed by in-patient units in general hospitals. Baghdad has the largest number of psychiatric beds, up to four times compared to those in other parts of the country. The percentage of mental disorders training for medical doctors corresponds to 3% of the total curricula; for nurses it makes up to 5%. Only physicians can prescribe drugs, and the prescription of psychotropic drugs is the prerogative of the psychiatrist. In terms of human resources The WHO-AIMS (2006) identified 91 psychiatrists, 7 general practitioners practicing psychiatry, 145 psychiatric

nurses, 16 psychologists and 25 social workers. Due to changes in the security situation and to general socio-economic conditions, migration of mental health professionals and the graduation of a new generation of psychiatrists and psychiatric nurses, the above mentioned figures have changed slightly. Recent data shows that in the Kurdistan region there are 17 general psychiatrists, 2 psychiatric practitioners, 4 child and adolescent psychiatrists, 91 psychiatric nurses, 4 psychologist, 15 social workers and 2 psychotherapists. In the South/Centre regions of Iraq there are 86 specialised psychiatrists, 27 psychiatric practitioners, 133 psychiatric nurses, 25 psychologists and 31 social workers.

In 2004, the Iraq National Mental Health Council (NMHC) developed an initial National Strategy for Mental Health and an action plan. This was a collaborative effort of the MoH the WHO, and other partners. Multiple mental health needs were identified relating to the health system framework, rebuilding the mental health infrastructure, human resources development, community education, and research. The following priorities were identified: 1) mental health needs assessment; 2) psychological first aid; 3) rebuilding of psychiatric services and 4) development of comprehensive psychiatric services.

Based on these priorities a number of specific activities were initiated by the MoH Iraq and the WHO with financial support provided by the Japanese Government through the United Nations Development Group (UNDG) funds. A large number of activities were achieved, such as the rebuilding of ancient and establishment of new community-based psychiatric facilities¹ (establishment of a new psychiatric facility in Erbil, construction of 8 bedded facilities in Najaf and Nasiriya, etc); the development of human resources (psychiatric training of medical officers to work in governorate hospitals, six-week psychiatric training for nurses, etc.); the production of public awareness campaign material on mental health; and the development of an active partnerships between several stakeholders (Iraqis, non-governmental organisations, development partners and concerned United Nations) in mental health care.

2.3. Mental health activities during 2003-2008

The current status of mental disorders in Iraq remains uncertain, even though it is obvious that the consequences of an ongoing humanitarian situation over several decades have significantly affected the population. There is a large body of literature on the consequences

of trauma exposure in foreign troops deployed in Iraq, but much less data focusing solely on the mental health of the Iraqi population.

Since its inception, the Iraqi National Mental Health Council has worked continuously to keep mental health needs in the focus of policy development and to guide the Iraqi MoH on this subject.

Eight units of community-based psychiatric facilities were rehabilitated in Baghdad Russafa, Baghdad Karkh, Baquba, Kerbela, Mosul, Basra, Sulaimaniya and Babylon centres. Six new psychiatric facilities have been developed in Erbil and Al Najaf, Nasiriya, Wasit and Kirkuk and Baghdad Russafa. A major development is the construction of 7 community-based psychiatric units by the MoH/Iraq in Duhok, Salah al-Deen, Baghdad, Diwania, Maysan, Basrah and Muthanna using the designs developed by WHO.

As a result of all these efforts nearly all of the governorates have at least one psychiatric treatment facility. The availability of such facilities at governorate level is a major development. These units not only provide the services needed by the population, but are the core of decentralised and community-based mental health services in the country.

One of the important needs identified in 2003 was the need for human resource development. To fulfil those needs a variety of activities, including training and continuous education programme, were developed. Initiatives included: two six-week training for trainers courses for 40 nurses, Egypt 2004; a one-week workshop on undergraduate training in psychiatry (with the participation of 10 psychiatrists from Iraq) United Kingdom 2005; visit (3 psychiatrists) to the National Institute of Mental Health and Neurosciences, Bangalore, India, to understand the methods of monitoring and organising the community-based substance abuse programs. India 2005; a three-month training programme in psychiatry for 26 nurses, Bahrain 2006 ; training in substance abuse for a multidisciplinary team of seven professionals. United Kingdom 2006; design of a “diploma course in psychiatry”, organised for 13 doctors from the governorates (one from each governorate, except from Baghdad, Basra, and Nineveh), Bahrain 2006 ; a four-week training course on the development of a hotline service for a team of 12 mental health professionals (psychiatrists, clinical psychologists, social workers and nurses). Egypt 2006; one week continuing professional development courses for all Iraq’s psychiatrists, held in Erbil in 2007, Spring 2008 and Baghdad autumn 2008 in collaboration with the Royal College of Psychiatrists, London, UK.

It is important to continue and expand human resource development for mental health in order to support their specific roles and responsibilities.

Two sets of resource materials for psychological first aid by schoolteachers and community level workers have been developed. The existing manual of mental health for medical officers in Iraq has been revised with a special emphasis on emergency- related mental health and psychosocial care. Training programs have been conducted at the governorate level to train doctors and health workers in essential mental health care.

Iraq's lack of a proper mental health law has been acknowledged. Earlier attempts to promulgate such a law were revived and supported by the new National Council, and through a series of meetings with judges and lawyers from the Ministry of Justice, a final draft was submitted to the government and finally approved by the Cabinet in October 2004. The law needs further revision to be in line with the international mental health directives.

The Kurdistan regional government, MoH, Ministry of Higher Education (MoHE) and the Royal College of Psychiatry signed a memorandum of agreement regarding continuous medical education for psychiatrists and psychologists in Iraq, through direct workshops, telemedicine and e-networking.

It is also important to mention that voluntary organizations play a major role in providing and supporting state services. The MoH has established a bureau to liaise with them and coordinate their activities through a true partnership.

3. The Iraq Mental Health Survey (IMHS)

The decision to undertake the WMHS Iraq was taken in the knowledge that the Iraq situation is associated with important and dramatic psychological consequences, and that accurate data were needed to develop comprehensive national mental health policies. It was therefore in the context of an ongoing conflict, with permanent insecurity issues throughout the country, that interviewers performed the data collection during 2006 and 2007.

The methodology of the Iraq Mental Health Survey is the same as the WMHS. Data collection was based on the Composite International Diagnostic Interview (CIDI) and a self-Reporting questionnaire (SRQ 20). Several objectives were considered such as identifying the

prevalence (12-month, lifetime and 30-day) of mental disorders among people of 18 years and older; highlighting the impact of mental disorders in the adult population of 18 years and older; assessing treatment utilisation by people with mental disorders; providing policy and decision-makers and researchers with reliable, accurate and relevant data for the development of mental health care policies.

The ultimate goal was therefore to collect accurate data and facilitate public health decision-making regarding mental health and related issues. The steps taken to achieve this survey were the same as those applied in previous WMHS, which have already been completed in 22 countries¹. Methodological details are described in the following section.

¹ Africa (Nigeria and South Africa); the Americas (Brazil, Colombia, Mexico, and the United States); Asia Pacific (Japan, New Zealand, Beijing, Shenzhen and Shanghai in the People's Republic of China); Europe (Belgium, Bulgaria, France, Germany, Israel, Italy, Netherlands, Romania, Spain, and Ukraine); the Middle East (Lebanon); and South East Asia (India).

II. Material and Methods

1. Questionnaires

1.1. Self Reporting Questionnaire (SRQ 20)

The shorter version of the Self-Reporting Questionnaire (SRQ 20) was used as a practical screening research instrument for the detection of psychiatric morbidity across different cultures. SRQ 20 was developed by WHO as part of the International project “Strategies for Extending Mental Health Care” (1975-1981) in 7 developing countries. The purpose was to use it as screening instrument to identify mental disorders in the community (Harding et al, 1980, 1983). For each of the settings in which the SRQ 20 is used, there is need to develop the cut-off point based on local studies. In Iraq, the cut-off point identified for “cases” and “non-cases” in another study in Baghdad (2004) was 7. This cut-off can be used to categorise "potential psychiatric cases" and more generally persons with significant psychological distress. The Arabic version of the Self-Reporting Questionnaire was administered to adults (18+) randomly selected from the household roster using a Kish Table. As recommended by authors (e.g. Harding et al, 1980) individuals who completed the SRQ 20 and living in households selected for the CIDI interview were approached to participate in the mental health survey by appointment at a convenient time.

1.2. Composite International Diagnostic Interview (CIDI)

The CIDI (version 3.0) was the version considered for the Iraqi survey. The CIDI is a comprehensive, fully-structured interview designed to be used by trained interviewers for the assessment of mental disorders according to the definitions and criteria of ICD-10 and DSM-IV. It is intended for use in epidemiological and cross-cultural studies as well as for clinical and research purposes (WHO 2004).

The CIDI was previously validated in Arabic during the Lebanese WMH (Karam et al, 2006) using the five step process of forward translation, backward translation, resolution of discrepancies between both translations, pilot testing, and final revision. However as Iraqi

Kish table is a tool was used for insuring randomly selection of the 18+ adult male or female respondents to SRQ 20 for mental health assessment in IFHS, It is consist of 12 tables given letters from A-L, one letter is assigned to each sampled household and repeated systematically to all households. So, the entire sample was set in one pool for this purpose. Each table is designed to pick the number of 18+ household members at the left side of table .While, the corresponding raw on the right will refer to serial number of the eligible person who is responsible for responding to SRQ 20. The selection of which table is used for each household is predetermined randomly from the sampling design stage).

Arabic is slightly different from Lebanese Arabic, minor adaptations were necessary. The Lebanese Arabic version served as a basis for the adaptation of the CIDI for Iraqi population.

1.2.1. Adaptation of the CIDI for Iraq

A series of steps were taken to implement the Arabic version of the CIDI for Iraqi population. A team of experts carried out the necessary steps for the adaptation. The teams involved a group of psychiatrists of Iraqi origin living in the UK, 30 senior Iraqi psychiatrists and two senior psychiatrists working in Jordan, members of the Iraq National Mental Health Council and a sub-team of seven psychiatrists, along with supervisors of the survey. Efforts were made to guarantee that the Arabic version would be fully understood by local communities without modifying the structure of the instrument.

Further discussions with an expert group familiar with the nuances of the language in Iraq as well as the key concepts within the CIDI led to a linguistic agreement on two professional categories: psychotherapist versus psychologist², social assistant versus social workers³. Furthermore the category “treatment by fortune teller or medium or soothsayer”⁴ was also adapted considering the Iraqi context. The expression ‘the gathering to give condolences’ was similarly adapted from the Lebanese version as it is commonly referred in a different way in Iraq⁵. The word “orphanage” was referred by another word ‘maytam’ the Iraqi version⁶. The word legislator, having different meanings according to Lebanese or Iraqi⁷ context, was also adapted from the Lebanese version.

Furthermore, most of the sections of the full version of the CIDI were chosen for the Iraq survey except for the following adaptations concerned mainly with vocabulary and cultural issues: changing of the unit of money from dollars to dinars⁸; deleting of the spouse employment section; change of the word partner to spouse in all questions; omission of spouse drinking⁹; omission of spouse involvement in criminal activities¹⁰; deletion of first

² باحث نفسي بدل معالج نفسي

³ باحث اجتماعي بدل مساعد اجتماعي

⁴ المنجمون او قارىء الفال بدل البصارون

⁵ الفاتحة او العزاء

⁶ ميتم بدل دار أيتام

⁷ مشرعون/برلمانيون بدل مشترعون

⁸ FD 23a,b,IED 13, SR 110

⁹ MR 49a

¹⁰ MR51

sexual relationship item¹¹; deletion of question about racial issues¹²; omission of atheist category¹³; omission of "did she ever run around with men or desert the family"¹⁴.

Following this, the entire Iraqi Arabic CIDI was reviewed by a team of senior psychiatrists from Iraq in Amman. This was followed by plenary team and task force review for ease of both understanding and cultural acceptability.

1.2.2. Translation into Kurdish.

The CIDI was also translated into Kurdish by panels of bilingual experts, with discrepancies being resolved by consensus of an expert panel. Two teams worked separately in Duhok and Sulaimaniya doing Bahdinani and Sorani translation simultaneously. After unifying the terms and translating the first few chapters a field test was conducted to assess the comprehension of translation and the proper language use. Further adaptations and readjustments were done after testing the instrument and finally two Kurdish versions were accepted by the technical group as understandable. Due to several logistical reasons, no back translation into Bahdinani and Sorani version of the CIDI was undertaken, and this should be considered to be a limitation of the survey.

1.2.3. WHO-DAS Scores

A short adapted version of the WHO Disability Assessment Instrument (WHO DAS II) was used in this survey. The WMH WHO-DAS covers six dimensions (Self-care, Mobility, Communication, Social interaction, Role functioning and Participation). Participation is further disaggregated into stigma, discrimination, and family burden. Each of them is scored on the theoretical range of 0-100, where 0 indicates no disability and 100 indicates maximum disability. For role functioning respondents are asked the number of days in the past 30 they were totally unable to work or carry out their other normal activities because of health problems. Respondents are also asked about the quantity and quality of functioning during days in role. This is also normed to a 0-100 metric. Each of the three aspects of difficulty in participation distinguished in the WMH WHO-DAS – stigma, discrimination, and family burden – is indicated by responses to a single item that implicitly combines duration and severity into a single response scale that asks respondents how much embarrassment they

¹¹ CN3

¹² DE 24,24a

¹³ DE32

¹⁴ CH66

experienced because of their health problems, how much discrimination or unfair treatment they experienced, and how much their health problems interfered with the life and activities of their close friends and family members during the past 30 days. Responses to these questions are normed to a 0-100 range. The duration and severity of difficulty on each of the other dimensions are also normed to a 0-100% metric to form the final score.

2. Trainings of Supervisors, Investigators and Data Managers

Training of central and local supervisors from all 18 governorates from Iraq was conducted in Amman, Jordan. Training of the interviewers was done separately in each governorate, by the central supervisors and in coordination with central supervisors for one week during May-June 2006 and a one day refresher training was conducted a day before the start of the survey in each governorate. A one-week training course on checking the questionnaire's responses and cluster tracking forms for completeness and consistency was conducted for the central data editors..

For data management, a two-week training workshop on CSPro 3.2 software (<http://www.census.gov/ipc/www/cspro/index.html>.) was conducted in Amman for the supervisors from both regions in July 2006, followed by in-country training for the data entry personnel. Following interviewer training, the survey instruments and procedures were pilot tested in all governorates.

3. Pilot Survey

The pilot survey was implemented in the field between June and December 2006 (June in South/Centre; September in Anbar; and December in Kurdistan region). The pilot survey covered all the country's governorates. The team members who participated in the pilot survey were as follows:

- | | | |
|-------------------------|---|----------------------|
| - Female doctor | } | Responsible for IFHS |
| - Statistician | | |
| - Male or female doctor | } | Responsible for IMHS |
| - Paramedical staff | | |

There were 6 teams for each directorate of health, with an exception made for Baghdad where 10 teams were needed. At each directorate of health there were 3 field supervisors (Baghdad 5), 1 local supervisor (Baghdad 2), 1 central supervisor (Baghdad 3).

All supervisors participated in the pilot survey regarding preparations, implementation and edition. All the supervisors were medical/paramedical specialists, general practitioners, and managers of statistician directorates. The central supervisors were doctors and pharmacists from different directorates at the MoH except in the Kurdistan region where central supervisors were recruited from directorates of health. The local supervisors were maternal and child health programme managers. The field supervisors were doctors from the directorates of health.

3.1. Pilot survey field work

The selection of clusters was done prior to the pilot survey; each team identified the households for implementation of the pilot survey. All requirements were prepared in advance (household and woman questionnaires, mental health survey questionnaire - CIDI version 3.0 - and the instructions for each questionnaire).

Each team was composed as follows: statistician, responsible for filling in of household questionnaire; female doctor, responsible for filling in the woman questionnaire for IFHS; male or female doctor, responsible for filling in the CIDI questionnaire; paramedical staff, responsible for assistance in filling in the CIDI questionnaire.

On day one: Surveyors completed the IFHS Survey (HHQ and WQ). The team made preparations for the mental health survey to be undertaken the next day by teams carrying out the CIDI interviews, through selection of the respondents from the household list, by using a Kish table. They also obtained a date and time for the visit of CIDI team members.

On day two: Discussions were organized for the IFHS teams on evaluation, assessment of the workload, interviewers' response to questions and any other issues, obstacles and difficulties. The purpose was to identify potential obstacles and develop appropriate solutions according to instruction manuals. IMHS also teams worked to collect data by interviewing the selected respondent from each household in order to fill in the CIDI questionnaire.

On day three: Discussions were held by supervisors with the IMHS teams in order to assess working situations, completion of questionnaires, as well as the respondents' response and related matters.

Completion of the IFHS (HHQ and WQ) surveys took about two hours for each household, while CIDI questionnaire completion took an average of 3 hours.

The IFHS and CIDI questionnaires were tested through the pilot survey; as a result some notes were taken by the teams; these notes were taken into consideration and some questions were adapted accordingly. The pilot survey showed that the arrangements for field work were satisfactory. At the end of the pilot survey, the numbers of completed questionnaires were; (i) household questionnaire (HHQ) 128 forms; (ii) woman questionnaire (WQ) 172 forms and (iii) composite international diagnostic interview (CIDI) Questionnaire 111 forms. All interviews were conducted face-to-face. In view of poor security conditions and other logistical issues related to the humanitarian conditions, questionnaires were completed in two sessions. Many respondents were suspicious of the finance questions, but thanks to the professional preparation of the interviewers the questionnaire was ultimately well perceived and accepted by respondents. Only a few complained of the length of the questionnaire. Skipping errors were identified and corrected.

The pilot exercise included an assessment of the interviewers' performance, an assessment of the responses obtained, verification of the quality of the questions and the length of each interview. The performance of the supervisors and the editors was also measured during this phase of the study.

4. Final Survey Implementation

4.1. Introduction

The survey was conducted under the leadership of the MoH, in partnership with the Ministry of Planning and Development Cooperation, Central Organization for Statistics and Information Technology (COSIT), the Iraq Kurdistan Region MoH, and the Kurdistan Regional Statistics Office. Researchers with backgrounds in demography, epidemiology and statistics from these ministries were involved throughout the design and implementation of the survey. Technical support was provided by WHO.

4.2. Sample design

The country's 18 governorates were divided into 56 different sampling domains (strata). Apart from Baghdad, each of the 18 governorates was divided into three domains (metropolitan or the governorate capital; other urban; and rural area). For the Baghdad governorate, five sampling domains were created (Sadr City, Rusafah Side, Karkh Side, other urban and rural Baghdad). Each of the 56 domains was allocated 18 clusters (or census enumeration areas), and from each cluster 10 households were selected. The target sample size was therefore 10,080 households and figure 1 shows the sampling size calculation of the study of IFHS which always used in IMHS.

The originally allocated sample sizes for Baghdad-Karkh domain, Anbar and Nineveh governorates were inflated prior to the fieldwork by 6 (33.3% increase in clusters), 54 (100%) and 18 (33.3%), respectively. This brought the total number of households to 1,086 clusters (or 10,860 households). This was to compensate for the expected difficulties in accessing some of the selected clusters due to security problems in these areas. The over-sampling was prompted by the COSIT Multiple Indicator Cluster Sample survey's (MICS3) experience in these governorates in 2006 (13). Therefore, the effective sample was the 9,710 households that were used for the survey. The sampling frame used in the Southern and Central governorates was derived from the 1997 census of Iraq, while in the Kurdistan region the frame was based on information provided by the Statistical Offices in the region. A new listing of households in the selected PSUs was conducted. From this list, linear systematic sampling was used to randomly select ten households' clusters for the administration of the SRQ 20.

To capitalise on a recently updated sampling frame, it was decided to use a subset of the MICS3 clusters, which had been selected with probability proportional to size. Clusters were paired according to geographical proximity prior to the selection, to create implicit stratification, and ten households were selected in each cluster. A household was defined as a group of people who have lived under one roof for the last 15 days or more, and who participate in the household budget partially or completely, eat and drink from a common source (eat from one pot), who might be blood related or not (Source: Rapid Survey of

Family Budget Iraq 2005, Ministry of Planning and development cooperation, Central Organisation for Statistics & Information Technology).

The sampling frame used in the South/Centre governorates was derived from the 1997 census, which had been updated for the Iraq Living Conditions Survey 2004, while in Kurdistan the frame was based on information provided by the Statistical Offices in the region. A new updated list of households in the selected PSUs was conducted 3 days before the survey teams visited the cluster and linear random systematic sampling was used to select a cluster of 10 households in each PSU. Therefore the IFHS is a two-stage stratified sample survey of households (stage 1 selection of (PSUs), stage 2 selection of households). Due to the different selection probabilities of households into the sample, design weights were calculated and further adjusted for non-response at cluster and household levels.

A sample of 9,256 household completed SRQ 20 and 4,612 households were selected for the CIDI interview. 4,593 out of the 4,612 agreed to be interviewed and 4,332 CIDI interviews were completed. Equal numbers of respondents were allocated to each of the 56 domains.

Figure 1: Sample size calculation of the IMHS based on the IFHS study

The adequate sample size (households) for each of the 56 sampling domains was calculated using the following formula:

$$n_s = \frac{Z^2_{1-\alpha/2} P(1-P)}{E^2} \text{ deff.}(1 + \text{NRR})$$

Where:

- n_s = The required sample size for each sampling domain, expressed as the number of households .
- $Z^2_{1-\alpha/2}$ = Z-value determined by the confidence level
= 1.96 for 95% confidence limits
- deff = design effect
= 1.8
- NRR = Non Response Rate
= 0.04
- P = The estimate of the proportion
= 0.5 (assumed maximum)
- E = The total width of the expected confidence interval
= 0.10 (for the sampling domain, the expected E is being significantly decreased for the less than 10% for the governorate and national level, urban, rural, and total).

Therefore,

$$n_s = \frac{(1.96)^2 0.5(0.5)}{0.10^2} (1.8)(1.04) = 180 \text{ households}$$

Figure 2: Summary of the sampling structure

| Governorate | | | |
|--------------------|---------------------------|-------------------------|-------------------|
| | Urban Metropolitan | Urban Area Other | Rural Area |
| PSU | 54 | 54 | 54 |
| | | | |
| PSU/Pair | 27 | 27 | 27 |
| | | | |
| PSU/Pair | 9 | 9 | 9 |
| | | | |
| PSU | 18 | 18 | 18 |
| | | | |
| HH | 180 | 180 | 180 |
| | | | |
| HH | 540 | | |

From the list of 10 households, only 5 were randomly selected for CIDI interviews. Letters from A-L were assigned to these households and repeated systematically to all households so that all Iraq was set in one pool using the Kish¹⁵ table (see annex 1). Due to the different selection probabilities of households into the sample design base weights were calculated and further adjusted for non-response. All weights were standardised and all results are based on these standardised weights.

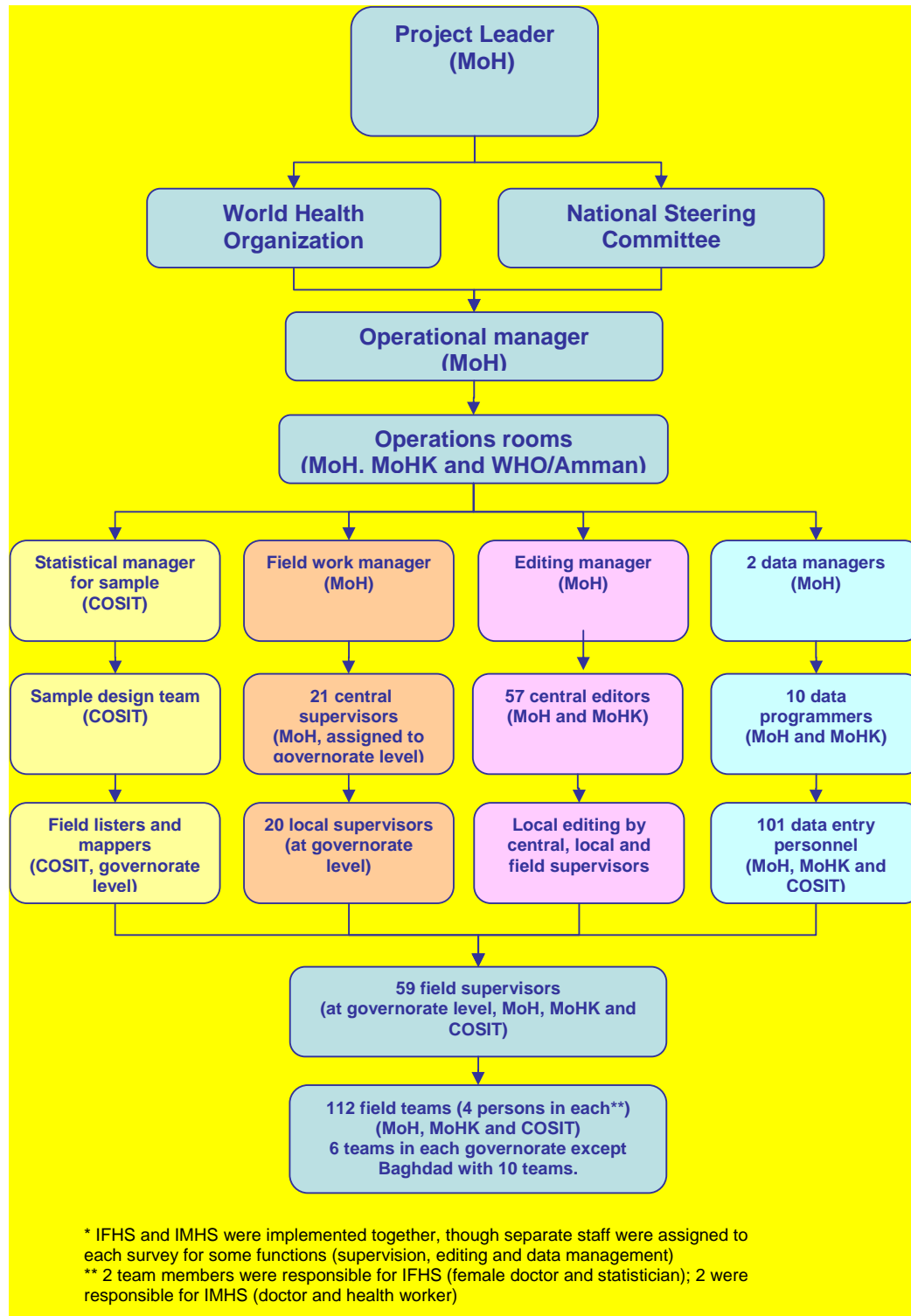
4.3. Implementation

The survey fieldwork was implemented in phases to ensure close supervision, especially in the areas where the security situation was difficult. In the 14 South/Centre governorates, the fieldwork was conducted during August - September 2006. In the Anbar governorate, the fieldwork was conducted during October-November. In the three governorates of the Kurdistan region, the survey was undertaken during February - March 2007, after the translation of the questionnaire and the training of the interviewers, which took place between December 2006 and January 2007.

The teams were closely supervised throughout the fieldwork by the field, local and central supervisors. Each week, checked and completed clusters for the South/Centre were sent to the Federal Ministry of Health in Baghdad for further checking and editing. The central supervisors and editors reviewed all forms and returned any that were incorrect or incomplete to the respective governorate. Open-ended questions were coded and questionnaires for each cluster were then forwarded to the data entry team in batches. All data were double entered and verified. Similar procedures were followed in the three Kurdistan governorates.

Overall, 407 personnel participated in the implementation of the survey; 53% were female, mainly interviewers.

Figure 3: IMHS and IFHS organizational structure



4.4. Data collection

Adult Iraqis were eligible for the interviews. Persons who were below 18 years, not available in the field within 45 days or away from home for more than 45 days or not capable of completing the CIDI due to their physical or mental condition were excluded from the study. Out of the initial sample of 10,080 households, 370 could not be visited due to security reasons, leaving the MHS team with a remaining 9,345 households to be investigated. Of the 9,345 adults selected for the SRQ 20, the response rate was 99.0%, 0.2% were absent at visiting time, 0.1% refused the interview and 0.3% were unable to answer for various reasons. For each cluster of 10 households, 5 adults were randomly selected for administration of the CIDI.

Eligible respondents were given an appointment. Informed consent for the CIDI was taken before conducting each interview. Data collection took almost 40 days in the field at all governorates except in Diala and Al Anbar (47 days and 49 days respectively) with average 6 to 8 hours per day. It is estimated that each cluster (5 CIDI interviews) took 3 to 4 days to be completed by each team. All interviews were conducted face to face. Despite difficult security issues in many areas, the investigators were able to collect data. The fact that investigators were governmental personnel and had previous experience in the field made the entire operational process easier. In certain cases respondents asked for medical consultation and treatment and were therefore referred to the nearest primary health care centre by the field investigators. Arabic and Kurdish versions of the questionnaires were used as appropriate¹⁶.

In the WMHS, a history of a disorder is collected in addition to an assessment of the current state. For each disorder, participants are asked if they ever experienced symptoms, and then about the onset and recent experience of symptoms; in other words, when they first experienced symptoms and when they last experienced symptoms. Most recent experience of symptoms was used to calculate period prevalence, which is required to understand the course of the disorder and the possible need for treatment within certain periods. Some disorders often persist for years, some disappear completely and others are recurrent. Disorders differ across individuals in intensity, regularity of appearance and recurrence. To

¹⁶ In Kirkuk the population is composed of Arabs, Kurds and Turkmen, therefore the Arabic version of the questionnaires was used. There was no major comprehension problems with the adaptation of the questionnaires, even though, occasionally the investigators had to clarify some of the questions in Kurdish and Turkmen languages

capture this continuum it was necessary to consider the lifetime prevalence, the 12 month prevalence and the last 30 day prevalence. (Lifetime prevalence of mental disorders refers to the proportion of the study population with a disorder at any time in their life until the time of interview. Twelve (12) months prevalence of mental disorders is the proportion of the population who have ever met the criteria for disorder and who have reported an episode or key symptom in the past twelve (12) months. Thirty (30) day prevalence of mental disorders is the proportion of people who have ever met the criteria for disorder and have reported an episode or key symptom in the last 30 days.)

4.5. Supervision

Each governorate had one central supervisor (except in Baghdad and Al Anbar with respectively 3 and 2 central supervisors), one local supervisor (except in Baghdad and Al Anbar with 2 local supervisors at each governorate) and three field supervisors (except in the Kurdistan region with 4 field supervisors at each governorate). They worked closely with the interviewers to clarify queries regarding the flow of the interview and to solve practical problems at the field level. Regular review meetings were held at the end of each day. All central supervisors were in regular communication with the operational cluster of the survey at national level. On occasions the supervisors even joined the investigators during the interviews to provide additional support.

4.6. Editing

To avoid repeated travel to the same area, due to security issues, all interviews were edited in the field before the interview team left a sampling area. The central editing process was carried out in parallel with data collection. In the Kurdistan region 6 editors were involved at governorate level while in the South/Centre, the 22 editors were located in the MoH. Interview teams received feedback on possible mistakes/errors and adjustments were made.

4.7. Data Management

Data entry and preparation for statistical processing was initiated during a training workshop held in Amman. Several steps were followed, such as the adaptation of the PAPI program (Paper and Pencil Interview) from version 1.2.1 to 1.2.9 in order to be compatible with the Iraqi CIDI, and demo data entry. Data from different computers in the South/Centre and the

Kurdistan region were merged then extracted to one master data file and uploaded to the data processing centre.

Data preparation for statistical processing also went through several stages and the final step was completed in June 2007. A team of five (three psychiatrists and two data entry persons) worked for ten days to complete the final preparation of data for processing. This included checking of all wild codes, out of range values, coding of open ended questions and review of the organic exclusions. Data from the Kurdistan region and the Centre/South regions were merged into one master data file. Based on the sampling design and the population data provided by COSIT, design weights were created for each respondent in the survey.

5. Demographic and Psychiatric Classification

Education was classified into four groups based on the number of years of study; no schooling (0 years), primary (1-6 years), secondary (7-12 years) and higher (12+ years). Marital status was divided into three categories; (married, separated/widowed/divorced and never married) due to the frequency of respondents in each cell. Employment was categorized as employed, student, homemaker, retired and others. Economic status divided into four income groups, created using the average income per month of Iraq and dividing the income from 0 – 5,000,000 Iraqi Dinars into four equal groups as quartiles (Q1, Q2, Q3 and Q4).

In the survey, the term "case" refers to a person with diagnosable psychiatric disorder, while "non case" refers to a person with no diagnosable psychiatric disorders (according to ICD10 and based on CIDI).

6. Statistical Methods

Since the IMHS was carried out using a multi-stage cluster design, and every individual was assigned a known non-zero probability of selection, all data were analysed using the design weights for the survey. Standard errors were estimated using the Taylor series linearization method to adjust for design effects. Significance tests for differences in prevalence were made using a chi square test. In addition analysis were carried out to estimate the odds ratios (OR) for developing any affective disorders, any anxiety disorders, any substance use disorders and any mental disorder (for 12 month and lifetime prevalence) for age, sex,

education, marital status, education, income, and region. Multivariate analyses using logistic regression were then carried out with any affective disorders, any anxiety disorders, any substance use disorders and any mental disorder (for 12 month and lifetime prevalence) as the dependent variable and age, sex, education, marital status, education, income, region and exposure to trauma as explanatory variables. All statistical analyses were carried out in STATA version 9.2.

III. Results

1. Sample Characteristics

The eligible persons for SRQ 20 and CIDI were Iraqis age 18+. Out of the initial sample of 10,080 households, 370 were not visited due to security considerations. From the remaining 9,710 households successful interviews were held in 9,345 households. The overall (SRQ 20 and CIDI) response rate is 95.2%.

Table 1 - Percent distribution of respondents by age group, marital status, education, employment status, residence and region according to sex

| | Male | SE | Female | SE | Total | SE |
|----------------------------|--------------|-----|--------------|-----|--------------|-----|
| Age group | | | | | | |
| 18-34 | 55.7 | 1.6 | 53.1 | 1.6 | 54.4 | 1.1 |
| 35-49 | 22.5 | 1.2 | 24.4 | 1.3 | 23.5 | 0.9 |
| 50-64 | 15.3 | 1.2 | 15.7 | 1.2 | 15.5 | 0.8 |
| 65+ | 6.5 | 0.8 | 6.8 | 0.8 | 6.7 | 0.6 |
| Marital Status | | | | | | |
| Married | 67.6 | 1.6 | 63.5 | 1.6 | 65.6 | 1.1 |
| Separated/Widowed/Divorced | 2.2 | 0.5 | 12.8 | 1.1 | 7.4 | 0.6 |
| Never married | 30.2 | 1.5 | 23.7 | 1.5 | 27 | 1.1 |
| Education | | | | | | |
| No Formal | 12.2 | 1.0 | 31.4 | 1.5 | 21.8 | 0.9 |
| Primary | 31.0 | 1.5 | 35.4 | 1.5 | 33.2 | 1.1 |
| Secondary | 34.4 | 1.5 | 21.4 | 1.3 | 27.9 | 1.0 |
| Higher | 22.4 | 1.4 | 11.8 | 1.1 | 17.1 | 0.9 |
| Employment status | | | | | | |
| Employed | 68.2 | 1.5 | 13.0 | 1.1 | 40.8 | 1.1 |
| Student | 7.7 | 0.9 | 4.5 | 0.7 | 6.1 | 0.6 |
| Homemaker | 0.6 | 0.2 | 52.2 | 1.6 | 26.2 | 1.0 |
| Retired | 6.7 | 0.8 | 0.4 | 0.2 | 3.6 | 0.4 |
| Other | 16.8 | 1.2 | 29.8 | 1.5 | 23.3 | 1.0 |
| Residence | | | | | | |
| Rural | 37.0 | 1.3 | 35.1 | 1.3 | 36.1 | 0.7 |
| Urban | 63.0 | 1.3 | 64.9 | 1.3 | 63.9 | 0.7 |
| Region | | | | | | |
| Kurdistan | 15.4 | 0.9 | 16.7 | 1.0 | 16.1 | 0.5 |
| South /Centre | 84.6 | 0.9 | 83.3 | 1.0 | 83.9 | 0.5 |
| Total Number | 2,180 | | 2,152 | | 4,332 | |

Table 1 shows that more than half of respondents (54.4%) were among the young age group (18-34 years). The separated, widowed or divorced category was more represented in women than men (12.8% versus 2.2%). 21.8 % of respondents had no formal education. Only 40.8% of the population were employed and the remaining were either students, retired or unemployed.

Table 1bis - Percent distribution of household population by age group, marital status, education, residence and region according to sex

| | Male | SE | Female | SE | Total | SE |
|----------------------------|---------------|------|---------------|------|---------------|------|
| Age group | | | | | | |
| 0-4 | 14.51 | 0.41 | 14.57 | 0.35 | 14.54 | 0.28 |
| 5-14 | 26.63 | 0.49 | 26.41 | 0.51 | 26.52 | 0.37 |
| 15-29 | 29.50 | 0.58 | 27.50 | 0.48 | 28.51 | 0.45 |
| 30-44 | 16.32 | 0.47 | 17.30 | 0.39 | 16.81 | 0.33 |
| 45-59 | 8.52 | 0.28 | 9.36 | 0.30 | 8.94 | 0.24 |
| 60-69 | 2.86 | 0.16 | 2.98 | 0.17 | 2.92 | 0.14 |
| 70-79 | 1.26 | 0.13 | 1.22 | 0.11 | 1.24 | 0.10 |
| 80+ | 0.40 | 0.05 | 0.65 | 0.07 | 0.53 | 0.05 |
| Marital Status | | | | | | |
| Single | 65.14 | 0.42 | 58.20 | 0.43 | 61.70 | 0.34 |
| Married | 34.22 | 0.40 | 35.57 | 0.41 | 34.89 | 0.33 |
| Separated/Divorced/Widowed | 0.64 | 0.09 | 6.23 | 0.27 | 3.41 | 0.16 |
| Missing | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 |
| Education | | | | | | |
| No Formal | 27.15 | 0.61 | 37.29 | 0.63 | 32.18 | 0.51 |
| Informal | 0.35 | 0.04 | 1.21 | 0.12 | 0.78 | 0.07 |
| Primary | 37.01 | 0.64 | 37.18 | 0.63 | 37.09 | 0.50 |
| Secondary | 25.74 | 0.64 | 18.52 | 0.52 | 22.16 | 0.44 |
| Higher | 9.75 | 0.50 | 5.80 | 0.38 | 7.79 | 0.38 |
| Residence | | | | | | |
| Rural | 36.56 | 0.71 | 36.86 | 0.72 | 36.70 | 0.63 |
| Urban | 63.44 | 0.71 | 63.14 | 0.72 | 63.30 | 0.63 |
| Region | | | | | | |
| Kurdistan | 13.12 | 0.38 | 12.73 | 0.33 | 12.93 | 0.32 |
| South/Centre | 86.88 | 0.38 | 87.27 | 0.33 | 87.07 | 0.32 |
| Total Number | 15,416 | | 15,165 | | 31,655 | |

Table 1bis describes the percentage distribution of household population by age group, marital status, education, residence and region according to gender. It shows that over 41% of the population is below the age of 15 years. The data for the household composition came from the IFHS data set that identified the households selected for the CIDI interview, including the final non-responding households.

Table 2 - Percentage of SRQ 20 items by selected background characteristics

| | All | Region | | Sex | | Age group | | |
|--|-------------|--------------|-----------|-------------|-------------|-------------|-------------|-------------|
| | | South/Centre | Kurdistan | Male | Female | 18-29 | 30-49 | 50+ |
| Number (weighted) | 9,175 | 7,849 | 1,326 | 4,519 | 4,656 | 3,032 | 4,286 | 1,857 |
| Item | | | | | | | | |
| Do you feel nervous, tense or worried? | 55.4 | 56.5 | 49.0 | 55.7 | 55.2 | 50.8 | 57.8 | 57.5 |
| Are you easily tired? | 49.0 | 50.2 | 42.0 | 43.5 | 54.4 | 40.0 | 48.2 | 65.7 |
| Do you often have headaches? | 48.0 | 48.1 | 47.6 | 42.2 | 53.7 | 39.9 | 49.0 | 59.0 |
| Do you feel tired all the time? | 43.7 | 44.4 | 39.8 | 40.5 | 46.8 | 35.2 | 44.5 | 55.9 |
| Do you feel unhappy? | 33.9 | 34.9 | 28.2 | 35.5 | 32.3 | 30.3 | 35.2 | 36.7 |
| Is your appetite poor? | 33.0 | 33.2 | 31.4 | 29.4 | 36.4 | 28.9 | 31.3 | 43.5 |
| Do you sleep badly? | 32.7 | 33.0 | 30.9 | 30.1 | 35.2 | 23.5 | 33.4 | 46.0 |
| Do you have uncomfortable feelings in your stomach? | 30.4 | 31.4 | 24.6 | 28.5 | 32.3 | 24.4 | 29.6 | 42.2 |
| Is your daily work suffering? | 28.8 | 28.5 | 30.2 | 30.4 | 27.2 | 24.6 | 28.6 | 36.0 |
| Are you easily frightened? | 27.5 | 28.6 | 20.9 | 17.8 | 37.0 | 24.8 | 28.1 | 30.6 |
| Is your digestion poor? | 27.0 | 27.5 | 24.1 | 25.0 | 29.0 | 20.6 | 26.3 | 39.1 |
| Do you find it difficult to enjoy your daily activities? | 26.1 | 26.0 | 26.2 | 25.1 | 27.0 | 21.7 | 25.5 | 34.4 |
| Do you have trouble thinking clearly? | 21.9 | 21.2 | 26.1 | 20.0 | 23.7 | 18.4 | 22.1 | 27.1 |
| Do you find it difficult to make decisions? | 21.5 | 20.2 | 29.6 | 18.2 | 24.8 | 21.1 | 21.0 | 23.4 |
| Do your hands shake? | 18.0 | 18.3 | 16.0 | 13.4 | 22.5 | 13.8 | 15.6 | 30.3 |
| Do you cry more than usual? | 17.5 | 16.7 | 22.1 | 7.0 | 27.7 | 14.8 | 17.0 | 23.2 |
| Have you lost interest in things? | 16.8 | 16.5 | 18.6 | 16.4 | 17.2 | 13.0 | 16.6 | 23.5 |
| Are you unable to play a useful part in life? | 13.0 | 12.0 | 19.1 | 11.3 | 14.7 | 10.0 | 10.5 | 23.7 |
| Do you feel you are a worthless person? | 7.8 | 7.5 | 9.6 | 6.9 | 8.7 | 6.3 | 6.3 | 13.6 |
| Has the thought of ending your life been on your mind? | 3.5 | 3.3 | 4.2 | 2.9 | 4.0 | 3.0 | 3.5 | 4.1 |
| Mental Health Score | | | | | | | | |
| At least 7 | 35.5 | 35.6 | 35 | 30.4 | 40.4 | 27.3 | 35.1 | 49.9 |

Table 2 presents the percentage of positive answers to each of the items on the SRQ 20 and the mental health score by region, gender and age group. It shows that over half of the respondents had felt nervous, tense or worried in the previous 30 days. A large proportion of the respondents also indicate that they are easily tired, often have headaches and also feel tired all the time. 3.5% of respondents stated that they had thought of ending their own lives while 7.8% had thought that they were a worthless person at some point in the month before the survey.

2. Lifetime Prevalence of Mental Disorders

Table 3 - Lifetime prevalence of ICD disorders by sex (%)

| Diagnosis | Male | SE | Female | SE | Overall | SE |
|------------------------------------|--------------|-------------|--------------|--------------|--------------|-------------|
| Severe Depressive Episode | 2.12 | 0.41 | 4.89 | 0.74* | 3.50 | 0.42 |
| Moderate Depressive Episode | 2.68 | 0.51 | 2.98 | 0.54 | 2.83 | 0.37 |
| Mild Depressive Episode | 0.93 | 0.31 | 1.36 | 0.33 | 1.15 | 0.22 |
| Mania | 0.13 | 0.06 | 0.14 | 0.08 | 0.13 | 0.05 |
| Hypomania | 0.14 | 0.07 | 0.44 | 0.22 | 0.29 | 0.12 |
| Dysthymia | 0.66 | 0.29 | 0.56 | 0.23 | 0.61 | 0.19 |
| Any affective disorder | 6.13 | 0.74 | 9.53 | 0.94* | 7.82 | 0.60 |
| Panic Disorder | 0.37 | 0.22 | 0.92 | 0.34 | 0.64 | 0.20 |
| Agoraphobia without Panic Disorder | 0.23 | 0.12 | 1.42 | 0.39* | 0.82 | 0.20 |
| Social Phobia | 0.78 | 0.26 | 1.17 | 0.33 | 0.97 | 0.21 |
| Specific Phobia | 2.60 | 0.52 | 8.20 | 0.88* | 5.38 | 0.51 |
| Generalized Anxiety Disorder | 1.92 | 0.49 | 2.10 | 0.47 | 2.01 | 0.34 |
| Post Traumatic Stress Disorder | 3.95 | 0.61 | 3.22 | 0.52 | 3.59 | 0.40 |
| Obsessive Compulsive Disorder | 1.30 | 0.33 | 1.66 | 0.39 | 1.47 | 0.26 |
| Any anxiety disorder | 9.11 | 0.94 | 14.09 | 1.10* | 11.58 | 0.72 |
| Any substance disorder | 1.59 | 0.43 | 0.25 | 0.20* | 0.92 | 0.24 |
| Any disorder | 13.69 | 1.11 | 19.46 | 1.26* | 16.56 | 0.84 |

*p<0.05

Table 3 demonstrates that there is a gender effect. Indeed, we observe a significant difference of lifetime prevalence of ICD disorders between men and women. This overall difference is the result of specific diagnoses that are significantly higher for women: *severe depressive episode*, *agoraphobia without panic disorders*, *specific phobias* and *any other affective disorders* and *any other anxiety disorders*. The overall lifetime prevalence for all mental disorders was 16.56%. The rate for males was 13.69% and females 19.46%. The chief contributors to the difference between men and women are the diagnostic category of *severe depressive episode* and *specific phobia*, both more prevalent among women. *Anxiety disorders* (11.58%) are the most common disorder group, followed by *any affective disorders* (7.82%). A striking feature is the low prevalence of any substance use disorders (0.92%). Among the anxiety disorders, the most common disorder is *specific phobia* (5.38%), followed by *PTSD* (3.59%) and *generalised anxiety disorder* (2.01%).

Table 4 - Male: Lifetime prevalence of ICD disorders by age distribution (%)

| Diagnosis | 18-34 yrs | SE | 35-49 yrs | SE | 50-64 yrs | SE | 65 yrs and above | SE | Over-all | SE |
|------------------------------------|------------------|-------------|------------------|-------------|------------------|-------------|-------------------------|-------------|-----------------|-------------|
| Severe Depressive Episode | 1.44 | 0.45 | 2.59 | 0.97 | 2.01 | 0.79 | 6.66* | 3.15 | 2.12 | 0.41 |
| Moderate Depressive Episode | 2.03 | 0.58 | 2.14 | 0.97 | 5.67 | 2.00 | 3.01 | 1.51 | 2.68 | 0.51 |
| Mild Depressive Episode | 0.87 | 0.39 | 0.46 | 0.22 | 0.74 | 0.60 | 3.48 | 2.88 | 0.93 | 0.31 |
| Mania | 0.10 | 0.08 | 0.31 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 | 0.06 |
| Hypomania | 0.10 | 0.08 | 0.37 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 0.07 |
| Dysthymia | 0.15 | 0.12 | 1.95 | 1.19 | 0.63 | 0.55 | 0.55* | 0.55 | 0.66 | 0.29 |
| Any affective disorder | 4.55 | 0.84 | 6.23 | 1.58 | 8.52 | 2.20 | 13.70* | 4.33 | 6.13 | 0.74 |
| Panic Disorder | 0.47 | 0.36 | 0.02 | 0.02 | 0.00 | 0.00 | 1.52 | 1.09 | 0.37 | 0.22 |
| Agoraphobia without Panic Disorder | 0.27 | 0.19 | 0.02 | 0.02 | 0.22 | 0.22 | 0.62 | 0.62 | 0.23 | 0.12 |
| Social Phobia | 1.19 | 0.45 | 0.26 | 0.24 | 0.00 | 0.00 | 0.89 | 0.89 | 0.78 | 0.26 |
| Specific Phobia | 2.86 | 0.76 | 2.46 | 0.94 | 2.57 | 1.41 | 0.89 | 0.89 | 2.60 | 0.52 |
| Generalised Anxiety Disorder | 1.54 | 0.62 | 2.40 | 1.00 | 1.67 | 1.25 | 4.11 | 2.93 | 1.92 | 0.49 |
| Post Traumatic Stress Disorder | 3.70 | 0.86 | 4.65 | 1.13 | 3.02 | 1.37 | 5.89 | 3.13 | 3.95 | 0.61 |
| Obsessive Compulsive Disorder | 1.28 | 0.54 | 1.66 | 0.46 | 1.11 | 0.60 | 0.64 | 0.64 | 1.30 | 0.33 |
| Any anxiety disorder | 8.88 | 1.32 | 10.06 | 1.72 | 7.78 | 2.31 | 10.90 | 4.21 | 9.11 | 0.94 |
| Any substance disorder | 1.52 | 0.62 | 1.88 | 0.95 | 1.82 | 0.81 | 0.62 | 0.62 | 1.59 | 0.43 |
| Any disorder | 12.74 | 1.52 | 14.12 | 2.08 | 14.87 | 2.86 | 17.61 | 4.94 | 13.69 | 1.11 |

*p<0.05

Table 4 - We observed a significant age effect for the following diagnoses: *severe depressive episode*, *dysthymia* and *any other affective disorders*. While the oldest category (65 +) shows higher rate for *severe depressive episode* and *any affective disorders*, the 35-49 category shows higher values for *dysthymia*.

Table 5 - Female: Lifetime prevalence of ICD disorders by age distribution (%)

| Diagnosis | 18-34 yrs | | 35-49 yrs | | 50-64 yrs | | 65 yrs and above | | Over all | |
|------------------------------------|------------------|-------------|------------------|-------------|------------------|-------------|-------------------------|-------------|-----------------|-------------|
| | | SE | | SE | | SE | | SE | | SE |
| Severe Depressive Episode | 3.44 | 0.91 | 5.04 | 1.43 | 8.70 | 2.38 | 6.99 | 3.26 | 4.89 | 0.74 |
| Moderate Depressive Episode | 1.88 | 0.59 | 4.34 | 1.08 | 3.10 | 1.42 | 6.42 | 3.83 | 2.98 | 0.54 |
| Mild Depressive Episode | 1.03 | 0.25 | 1.68 | 0.86 | 2.53 | 1.37 | 0.14 | 0.14 | 1.36 | 0.33 |
| Mania | 0.07 | 0.04 | 0.00 | 0.00 | 0.67 | 0.48 | 0.00 | 0.00 | 0.14 | 0.08 |
| Hypomania | 0.59 | 0.40 | 0.00 | 0.00 | 0.81 | 0.50 | 0.00 | 0.00 | 0.44 | 0.22 |
| Dysthymia | 0.31 | 0.16 | 0.30 | 0.14 | 1.68 | 1.27 | 0.90 | 0.83 | 0.56 | 0.23 |
| Any affective disorder | 6.61 | 1.10 | 11.06 | 1.91 | 14.90 | 2.98 | 14.37* | 4.82 | 9.53 | 0.94 |
| Panic Disorder | 0.70 | 0.39 | 2.00 | 1.11 | 0.31 | 0.28 | 0.07 | 0.07 | 0.92 | 0.34 |
| Agoraphobia without Panic Disorder | 1.45 | 0.57 | 1.05 | 0.45 | 2.00 | 1.31 | 1.24 | 1.24 | 1.42 | 0.39 |
| Social Phobia | 1.18 | 0.45 | 1.84 | 0.87 | 0.61 | 0.45 | 0.00 | 0.00 | 1.17 | 0.33 |
| Specific Phobia | 8.39 | 1.25 | 7.37 | 1.43 | 9.61 | 2.56 | 6.54 | 3.03 | 8.20 | 0.88 |
| Generalised Anxiety Disorder | 0.97 | 0.41 | 2.99 | 1.18 | 3.92 | 1.81 | 3.58 | 1.53 | 2.10 | 0.47 |
| Post Traumatic Stress Disorder | 2.10 | 0.58 | 3.98 | 1.02 | 4.61 | 1.59 | 6.08 | 3.20 | 3.22 | 0.52 |
| Obsessive Compulsive Disorder | 2.25 | 0.68 | 0.75 | 0.38 | 1.73 | 0.68 | 0.07 | 0.07 | 1.66 | 0.39 |
| Any anxiety disorder | 12.52 | 1.43 | 15.27 | 2.21 | 16.81 | 3.12 | 15.83 | 4.47 | 14.09 | 1.10 |
| Any substance disorder | 0.36 | 0.36 | 0.05 | 0.05 | 0.28 | 0.28 | 0.00 | 0.00 | 0.25 | 0.20 |
| Any disorder | 16.33 | 1.63 | 21.24 | 2.53 | 24.90 | 3.57 | 25.03* | 5.58 | 19.46 | 1.26 |

*p<0.05

Table 5 - We observed a significant effect for the category *any affective disorders* and *any disorders*. There is a progressive prevalence with age where both 50-64 and 65+ groups show higher values.

Table 6 - Lifetime prevalence of ICD disorders by residence (%)

| Diagnosis | Urban | SE | Rural | SE | Overall | SE |
|------------------------------------|--------------|-------------|--------------|-------------|----------------|-------------|
| Severe Depressive Episode | 4.06 | 0.58 | 2.51* | 0.54 | 3.50 | 0.420 |
| Moderate Depressive Episode | 2.83 | 0.45 | 2.82 | 0.64 | 2.83 | 0.37 |
| Mild Depressive Episode | 0.97 | 0.22 | 1.45 | 0.48 | 1.15 | 0.22 |
| Mania | 0.14 | 0.06 | 0.12 | 0.09 | 0.13 | 0.05 |
| Hypomania | 0.38 | 0.17 | 0.12 | 0.09 | 0.29 | 0.12 |
| Dysthymia | 0.83 | 0.28 | 0.22* | 0.13 | 0.61 | 0.19 |
| Any affective disorder | 8.34 | 0.77 | 6.90 | 0.93 | 7.82 | 0.60 |
| Panic Disorder | 0.58 | 0.23 | 0.75 | 0.39 | 0.64 | 0.20 |
| Agoraphobia without Panic Disorder | 1.08 | 0.31 | 0.37* | 0.14 | 0.82 | 0.20 |
| Social Phobia | 0.97 | 0.27 | 0.97 | 0.34 | 0.97 | 0.21 |
| Specific Phobia | 5.57 | 0.65 | 5.05 | 0.83 | 5.38 | 0.51 |
| Generalised Anxiety Disorder | 1.82 | 0.38 | 2.36 | 0.67 | 2.01 | 0.34 |
| Post Traumatic Stress Disorder | 4.39 | 0.55 | 2.18* | 0.53 | 3.59 | 0.40 |
| Obsessive Compulsive Disorder | 1.81 | 0.36 | 0.87 | 0.31 | 1.47 | 0.26 |
| Any anxiety disorder | 12.27 | 0.90 | 10.37 | 1.19 | 11.58 | 0.72 |
| Any substance disorder | 1.32 | 0.36 | 0.21* | 0.10 | 0.92 | 0.24 |
| Any disorder | 17.74 | 1.07 | 14.47 | 1.32 | 16.56 | 0.84 |

*p<0.05

Table 6 - We observed an effect between urban and rural categories for the following diagnoses: *severe depressive disorders, dysthymia, agoraphobia without panic disorders, post traumatic stress disorders* and *any substance disorders*. For each significant value urban residence is systematically higher than rural residence. The significant differences between urban and rural categories are not reflected in the category *any disorders*.

Table 7 - Lifetime prevalence of ICD disorders by region (%)

| Diagnosis | Kurdistan | SE | South/Centre | SE | Overall | SE |
|------------------------------------|------------------|-------------|---------------------|-------------|----------------|-------------|
| Severe Depressive Episode | 5.09 | 1.20 | 3.20 | 0.45 | 3.50 | 0.42 |
| Moderate Depressive Episode | 2.28 | 0.56 | 2.93 | 0.43 | 2.83 | 0.37 |
| Mild Depressive Episode | 1.21 | 0.39 | 1.13 | 0.26 | 1.15 | 0.22 |
| Mania | 0.16 | 0.13 | 0.13 | 0.05 | 0.13 | 0.05 |
| Hypomania | 0.43 | 0.30 | 0.26 | 0.13 | 0.29 | 0.12 |
| Dysthymia | 0.30 | 0.26 | 0.67 | 0.22 | 0.61 | 0.19 |
| Any affective disorder | 8.97 | 1.38 | 7.60 | 0.66 | 7.82 | 0.60 |
| Panic Disorder | 0.45 | 0.24 | 0.68 | 0.24 | 0.64 | 0.20 |
| Agoraphobia without Panic Disorder | 1.97 | 0.80 | 0.60 | 0.19 | 0.82 | 0.20 |
| Social Phobia | 2.66 | 0.82 | 0.65* | 0.19 | 0.97 | 0.21 |
| Specific Phobia | 9.73 | 1.60 | 4.55* | 0.53 | 5.38 | 0.51 |
| Generalised Anxiety Disorder | 1.71 | 0.72 | 2.07 | 0.38 | 2.01 | 0.34 |
| Post Traumatic Stress Disorder | 4.35 | 1.03 | 3.45 | 0.44 | 3.59 | 0.40 |
| Obsessive Compulsive Disorder | 2.42 | 0.78 | 1.29 | 0.26 | 1.47 | 0.26 |
| Any anxiety disorder | 15.85 | 1.89 | 10.77* | 0.78 | 11.58 | 0.72 |
| Any substance disorder | 0.99 | 0.65 | 0.91 | 0.25 | 0.92 | 0.24 |
| Any disorder | 21.13 | 2.10 | 15.69* | 0.91 | 16.56 | 0.84 |

*p<0.05

Table 7 - We observed a significant effect for *social phobia*, *any anxiety disorder* and for the category *any disorder*. The Kurdistan region shows higher values than the south/centre for each significant category, namely *social phobia*, *any anxiety disorder* and *any disorder*.

3. Twelve Month Prevalence of Mental Disorders

Table 8 :- 12 month prevalence of ICD disorders by sex (%)

| Diagnosis | Male | SE | Female | SE | Overall | SE |
|------------------------------------|-------------|-------------|---------------|-------------|----------------|-------------|
| Severe Depressive Episode | 1.25 | 0.33 | 3.18* | 0.63 | 2.21 | 0.36 |
| Moderate Depressive Episode | 1.43 | 0.38 | 0.81 | 0.17 | 1.12 | 0.21 |
| Mild Depressive Episode | 0.39 | 0.21 | 0.60 | 0.23 | 0.49 | 0.15 |
| Mania | 0.05 | 0.04 | 0.10 | 0.06 | 0.07 | 0.04 |
| Hypomania | 0.06 | 0.04 | 0.10 | 0.06 | 0.08 | 0.04 |
| Dysthymia | 0.37 | 0.21 | 0.45 | 0.22 | 0.41 | 0.15 |
| Any affective disorder | 3.22 | 0.54 | 4.77 | 0.69 | 3.99 | 0.44 |
| Panic Disorder | 0.31 | 0.21 | 0.68 | 0.28 | 0.49 | 0.18 |
| Agoraphobia without Panic Disorder | 0.14 | 0.08 | 1.16* | 0.37 | 0.65 | 0.19 |
| Social Phobia | 0.67 | 0.25 | 0.91* | 0.31 | 0.79 | 0.20 |
| Specific Phobia | 2.15 | 0.50 | 7.04 | 0.83 | 4.58 | 0.49 |
| Generalised Anxiety Disorder | 1.28 | 0.41 | 1.43 | 0.37 | 1.36 | 0.28 |
| Post Traumatic Stress Disorder | 1.74 | 0.43 | 1.51 | 0.38 | 1.63 | 0.29 |
| Obsessive Compulsive Disorder | 1.13 | 0.32 | 1.52 | 0.38 | 1.33 | 0.25 |
| Any anxiety disorder | 6.40 | 0.82 | 10.78* | 0.97 | 8.58 | 0.63 |
| Any substance disorder | 0.29 | 0.20 | 0.20 | 0.19 | 0.25 | 0.14 |
| Any disorder | 8.79 | 0.92 | 13.42* | 1.07 | 11.09 | 0.71 |

*p<0.05

Table 8 - We observed for the 12 month prevalence of ICD disorders a significant gender effect for the categories *severe depressive episode*, *agoraphobia without panic disorder*, *social phobia*, *any anxiety disorder* and *any disorder*. For every significant condition, women show higher values than men.

Table 9 - Male: 12-month prevalence of ICD disorders by age distribution (%)

| Diagnosis | 18-34 yrs | SE | 35-49 yrs | SE | 50-64 yrs | SE | 65 yrs and above | SE | Overall | SE |
|------------------------------------|----------------------|-------------|----------------------|-------------|----------------------|-------------|---------------------------------|-------------|----------------|-------------|
| Severe Depressive Episode | 0.90 | 0.40 | 2.06 | 0.94 | 0.36 | 0.23 | 3.50* | 1.53 | 1.25 | 0.33 |
| Moderate Depressive Episode | 1.42 | 0.54 | 1.38 | 0.87 | 1.77 | 0.83 | 0.96 | 0.69 | 1.43 | 0.38 |
| Mild Depressive Episode | 0.21 | 0.13 | 0.34 | 0.18 | 0.03 | 0.03 | 2.89* | 2.83 | 0.39 | 0.21 |
| Mania | 0.07 | 0.07 | 0.02 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.04 |
| Hypomania | 0.07 | 0.07 | 0.08 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.04 |
| Dysthymia | 0.15 | 0.12 | 1.12 | 0.86 | 0.00 | 0.00 | 0.55 | 0.55 | 0.37 | 0.21 |
| Any affective disorder | 2.71 | 0.69 | 3.85 | 1.27 | 2.16 | 0.86 | 7.89 | 3.25 | 3.22 | 0.54 |
| Panic Disorder | 0.47 | 0.36 | 0.02 | 0.02 | 0.00 | 0.00 | 0.62 | 0.62 | 0.31 | 0.21 |
| Agoraphobia without Panic Disorder | 0.11 | 0.10 | 0.00 | 0.00 | 0.22 | 0.22 | 0.62 | 0.62 | 0.14 | 0.08 |
| Social Phobia | 0.99 | 0.42 | 0.26 | 0.24 | 0.00 | 0.00 | 0.89 | 0.89 | 0.67 | 0.25 |
| Specific Phobia | 2.40 | 0.73 | 2.21 | 0.93 | 1.67 | 1.29 | 0.89 | 0.89 | 2.15 | 0.50 |
| Generalised Anxiety Disorder | 1.08 | 0.52 | 1.81 | 0.94 | 0.29 | 0.21 | 3.51 | 2.88 | 1.28 | 0.41 |
| Post Traumatic Stress Disorder | 1.45 | 0.56 | 1.44 | 0.45 | 1.75 | 1.26 | 5.22 | 3.11 | 1.74 | 0.43 |
| Obsessive Compulsive Disorder | 1.06 | 0.51 | 1.66 | 0.46 | 1.11 | 0.60 | 0.00 | 0.00 | 1.13 | 0.32 |
| Any anxiety disorder | 6.34 | 1.16 | 6.93 | 1.43 | 4.71 | 1.88 | 9.00 | 4.15 | 6.40 | 0.82 |
| Any substance disorder | 0.12 | 0.09 | 0.98 | 0.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.29 | 0.20 |
| Any disorder | 8.54 | 1.28 | 9.19 | 1.68 | 6.52 | 2.03 | 14.82 | 4.88 | 8.79 | 0.92 |

Table 10 - Female: 12-month prevalence of ICD disorders by age distribution

| Diagnosis | 18-34 yrs | SE | 35-49 yrs | SE | 50-64 yrs | SE | 65 yrs and above | SE | Overall | SE |
|--|----------------------|-------------|----------------------|-------------|----------------------|-------------|---------------------------------|-------------|----------------|-------------|
| Severe Depressive Episode | 1.96 | 0.73 | 3.34 | 1.18 | 5.81 | 2.21 | 6.01 | 3.20 | 3.18 | 0.63 |
| Moderate Depressive Episode | 0.35 | 0.12 | 2.17 | 0.61 | 0.49 | 0.39 | 0.22 | 0.17* | 0.81 | 0.17 |
| Mild Depressive Episode | 0.48 | 0.15 | 0.31 | 0.30 | 1.67 | 1.27 | 0.14 | 0.14 | 0.60 | 0.23 |
| Mania | 0.07 | 0.04 | 0.00 | 0.00 | 0.39 | 0.39 | 0.00 | 0.00 | 0.10 | 0.06 |
| Hypomania | 0.07 | 0.04 | 0.00 | 0.00 | 0.39 | 0.39 | 0.00 | 0.00 | 0.10 | 0.06 |
| Dysthymia | 0.13 | 0.08 | 0.24 | 0.13 | 1.68 | 1.27 | 0.90 | 0.83* | 0.45 | 0.22 |
| Any affective disorder | 2.90 | 0.76 | 5.83 | 1.34 | 8.40 | 2.55 | 7.19 | 3.29* | 4.77 | 0.69 |
| Panic Disorder | 0.70 | 0.39 | 1.22 | 0.80 | 0.03 | 0.03 | 0.00 | 0.00 | 0.68 | 0.28 |
| Agoraphobia without Panic Disorder | 1.30 | 0.56 | 0.66 | 0.34 | 2.00 | 1.31 | 0.00 | 0.00 | 1.16 | 0.37 |
| Social Phobia Specific | 0.93 | 0.43 | 1.32 | 0.81 | 0.61 | 0.45 | 0.00 | 0.00 | 0.91 | 0.31 |
| Phobia Generalised | 7.49 | 1.20 | 6.21 | 1.37 | 7.55 | 2.27 | 5.36 | 2.97 | 7.04 | 0.83 |
| Anxiety Disorder | 0.80 | 0.39 | 1.75 | 0.84 | 2.53 | 1.36 | 2.71 | 1.38 | 1.43 | 0.37 |
| Post Traumatic Stress Disorder | 1.16 | 0.42 | 0.86 | 0.33 | 2.74 | 1.41 | 3.83 | 2.89 | 1.51 | 0.38 |
| Obsessive Compulsive Disorder | 2.08 | 0.67 | 0.75 | 0.38 | 1.45 | 0.62 | 0.07 | 0.07 | 1.52 | 0.38 |
| Any anxiety disorder | 10.45 | 1.33 | 10.42 | 1.80 | 12.49 | 2.68 | 10.81 | 4.10 | 10.78 | 0.97 |
| Any substance disorder | 0.36 | 0.36 | 0.05 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.19 |
| Any disorder | 11.90 | 1.42 | 13.61 | 2.00 | 16.80 | 3.13 | 16.84 | 4.95 | 13.42 | 1.07 |

*p<0.05

Table 10 - We observed a significant effect for the categories *moderate depressive episode*, *dysthymia* and *any affective disorders*. Women from the 50-64 and 65+ groups show higher values for *dysthymia* and *any affective disorders*, while the 35-49 group shows higher values than other groups for *moderate depressive episode*.

Table 11 - 12-month prevalence of ICD disorders by residence

| Diagnosis | Urban | SE | Rural | SE | Overall | SE |
|------------------------------------|--------------|-------------|--------------|-------------|----------------|-------------|
| Severe Depressive Episode | 2.62 | 0.50 | 1.47 | 0.44 | 2.21 | 0.36 |
| Moderate Depressive Episode | 1.29 | 0.28 | 0.82 | 0.31 | 1.12 | 0.21 |
| Mild Depressive Episode | 0.43 | 0.17 | 0.61 | 0.29 | 0.49 | 0.15 |
| Mania | 0.06 | 0.04 | 0.08 | 0.08 | 0.07 | 0.04 |
| Hypomania | 0.07 | 0.04 | 0.08 | 0.08 | 0.08 | 0.04 |
| Dysthymia | 0.57 | 0.23 | 0.12 | 0.08 | 0.41* | 0.15 |
| Any affective disorder | 4.57 | 0.60 | 2.98 | 0.61 | 3.99 | 0.44 |
| Panic Disorder | 0.54 | 0.22 | 0.40 | 0.28 | 0.49 | 0.18 |
| Agoraphobia without Panic Disorder | 0.84 | 0.29 | 0.29 | 0.13 | 0.65* | 0.19 |
| Social Phobia | 0.75 | 0.25 | 0.85 | 0.33 | 0.79 | 0.20 |
| Specific Phobia | 4.71 | 0.61 | 4.35 | 0.80 | 4.58 | 0.49 |
| Generalised Anxiety Disorder | 1.21 | 0.30 | 1.63 | 0.55 | 1.36 | 0.28 |
| Post Traumatic Stress Disorder | 2.03 | 0.41 | 0.91 | 0.34 | 1.63* | 0.29 |
| Obsessive Compulsive Disorder | 1.64 | 0.35 | 0.77 | 0.30 | 1.33 | 0.25 |
| Any anxiety disorder | 9.02 | 0.80 | 7.79 | 1.04 | 8.58 | 0.63 |
| Any substance disorder | 0.35 | 0.21 | 0.06 | 0.06 | 0.25 | 0.14 |
| Any disorder | 11.72 | 0.90 | 9.97 | 1.14 | 11.09 | 0.71 |

*p<0.05

Table 11 - For 12 month prevalence of ICD disorders by residence we observed a significant effect for *dysthymia*, *agoraphobia without panic disorders* and *post traumatic stress disorders*. For every significant difference urban values are higher than rural values. These effects are not reflected in the category *any disorders*.

Table 12 - 12-month prevalence of ICD disorders by region

| Diagnosis | Kurdistan | SE | South/Centre | SE | Overall | SE |
|------------------------------------|------------------|-------------|---------------------|--------------|----------------|-------------|
| Severe Depressive Episode | 2.99 | 0.96 | 2.06 | 0.38 | 2.21 | 0.36 |
| Moderate Depressive Episode | 0.99 | 0.39 | 1.15 | 0.24 | 1.12 | 0.21 |
| Mild Depressive Episode | 0.40 | 0.18 | 0.51 | 0.18 | 0.49 | 0.15 |
| Mania | 0.16 | 0.13 | 0.05 | 0.04 | 0.07 | 0.04 |
| Hypomania | 0.16 | 0.13 | 0.06 | 0.04 | 0.08 | 0.04 |
| Dysthymia | 0.01 | 0.01 | 0.49 | 0.18* | 0.41 | 0.15 |
| Any affective disorder | 4.51 | 1.05 | 3.89 | 0.48 | 3.99 | 0.44 |
| Panic Disorder | 0.25 | 0.15 | 0.54 | 0.21 | 0.49 | 0.18 |
| Agoraphobia without Panic Disorder | 1.43 | 0.71 | 0.50 | 0.18 | 0.65 | 0.19 |
| Social Phobia | 1.97 | 0.75 | 0.56 | 0.19* | 0.79 | 0.20 |
| Specific Phobia | 7.10 | 1.44 | 4.10 | 0.51* | 4.58 | 0.49 |
| Generalised Anxiety Disorder | 1.29 | 0.68 | 1.37 | 0.30 | 1.36 | 0.28 |
| Post Traumatic Stress Disorder | 2.04 | 0.73 | 1.55 | 0.31 | 1.63 | 0.29 |
| Obsessive Compulsive Disorder | 2.03 | 0.72 | 1.19 | 0.26 | 1.33 | 0.25 |
| Any anxiety disorder | 12.24 | 1.74 | 7.88 | 0.68* | 8.58 | 0.63 |
| Any substance disorder | 0.14 | 0.11 | 0.27 | 0.16 | 0.25 | 0.14 |
| Any disorder | 14.13 | 1.79 | 10.51 | 0.77* | 11.09 | 0.71 |

*p<0.05

Table 12 - For 12-month prevalence of ICD disorders by region we observed significant differences for *dysthymia*, *social phobia* and *any anxiety disorders*. *Dysthymia* show higher values in the south/centre region than in the Kurdistan region, while *social phobia* and *any anxiety disorders* show higher values in the Kurdistan region. The category *any disorder* is also significant with higher values for the Kurdistan region.

4. 30 Day Prevalence of Mental Disorders

Table 13 - 30 day prevalence of ICD disorders by sex

| Diagnosis | Male | SE | Female | SE | Overall | SE |
|------------------------------------|-------------|-------------|---------------|-------------|----------------|-------------|
| Severe Depressive Episode | 0.36 | 0.12 | 1.15* | 0.32 | 0.75 | 0.17 |
| Moderate Depressive Episode | 0.48 | 0.22 | 0.28 | 0.09 | 0.38 | 0.12 |
| Mild Depressive Episode | 0.23 | 0.19 | 0.34 | 0.21 | 0.28 | 0.14 |
| Mania | 0.05 | 0.04 | 0.07 | 0.06 | 0.06 | 0.04 |
| Hypomania | 0.06 | 0.04 | 0.07 | 0.06 | 0.06 | 0.04 |
| Dysthymia | 0.14 | 0.08 | 0.37 | 0.21 | 0.26 | 0.11 |
| Any affective disorder | 1.18 | 0.32 | 1.89 | 0.39 | 1.54 | 0.26 |
| Panic Disorder | 0.31 | 0.21 | 0.58 | 0.28 | 0.45 | 0.17 |
| Agoraphobia without Panic Disorder | 0.10 | 0.07 | 1.06 | 0.37 | 0.58 | 0.19 |
| Social Phobia | 0.20 | 0.10 | 0.71* | 0.30 | 0.46 | 0.16 |
| Specific Phobia | 1.31 | 0.37 | 5.84* | 0.79 | 3.56 | 0.44 |
| Generalised Anxiety Disorder | 0.57 | 0.28 | 0.84 | 0.30 | 0.71 | 0.20 |
| Post Traumatic Stress Disorder | 0.43 | 0.14 | 0.60 | 0.28 | 0.52 | 0.16 |
| Obsessive Compulsive Disorder | 0.82 | 0.24 | 1.28 | 0.37 | 1.05 | 0.22 |
| Any anxiety disorder | 3.24 | 0.54 | 8.84* | 0.94 | 6.02 | 0.54 |
| Any substance disorder | 0.25 | 0.19 | 0.00 | 0.00 | 0.12 | 0.10 |
| Any disorder | 4.03 | 0.59 | 10.29* | 1.00 | 7.14 | 0.58 |

*p<0.05

Table 13 - The 30 days prevalence of ICD disorders shows significant differences between men and women for *severe depressive episode*, *social phobia*, *specific phobia* and *any anxiety disorder*. For every significant condition women show higher values than men. The differences are clearly reflected in the category *any disorder* with values of 4.03 (men) and 10.29 (women).

Table 14 - Male: 30-day prevalence of ICD disorders by age distribution (%)

| Diagnosis | 18-34 yrs | SE | 35-49 yrs | SE | 50-64 yrs | SE | 65 yrs and above | SE | Over- All | SE |
|--|----------------------|-------------|----------------------|-------------|----------------------|-------------|---------------------------------|-------------|----------------------|-------------|
| Severe Depressive Episode | 0.22 | 0.14 | 0.65 | 0.33 | 0.03 | 0.03 | 1.35* | 0.82 | 0.36 | 0.12 |
| Moderate Depressive Episode | 0.54 | 0.36 | 0.15 | 0.11 | 0.93 | 0.58 | 0.00 | 0.00 | 0.48 | 0.22 |
| Mild Depressive Episode | 0.00 | 0.00 | 0.14 | 0.14 | 0.03 | 0.03 | 2.89* | 2.83 | 0.23 | 0.19 |
| Mania | 0.07 | 0.07 | 0.02 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.04 |
| Hypomania | 0.07 | 0.07 | 0.08 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.04 |
| Dysthymia | 0.14 | 0.12 | 0.28 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 0.08 |
| Any affective disorder | 0.95 | 0.41 | 1.02 | 0.38 | 0.99 | 0.58 | 4.24 | 2.92 | 1.18 | 0.32 |
| Panic Disorder | 0.47 | 0.36 | 0.02 | 0.02 | 0.00 | 0.00 | 0.62 | 0.62 | 0.31 | 0.21 |
| Agoraphobia without Panic Disorder | 0.11 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.62 | 0.62 | 0.10 | 0.07 |
| Social Phobia | 0.36 | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.10 |
| Specific Phobia | 1.46 | 0.54 | 1.66 | 0.88 | 0.43 | 0.40 | 0.89 | 0.89 | 1.31 | 0.37 |
| Generalised Anxiety Disorder | 0.50 | 0.36 | 1.13 | 0.85 | 0.00 | 0.00 | 0.62 | 0.62 | 0.57 | 0.28 |
| Post Traumatic Stress Disorder | 0.31 | 0.18 | 0.58 | 0.31 | 0.34 | 0.25 | 1.18 | 0.84 | 0.43 | 0.14 |
| Obsessive Compulsive Disorder | 0.56 | 0.35 | 1.51 | 0.44 | 1.11 | 0.60 | 0.00 | 0.00 | 0.82 | 0.24 |
| Any anxiety disorder | 3.12 | 0.77 | 4.90 | 1.31 | 1.72 | 0.74 | 2.07 | 1.22 | 3.24 | 0.54 |
| Any substance disorder | 0.10 | 0.08 | 0.84 | 0.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0.25 | 0.19 |
| Any disorder | 3.64 | 0.80 | 5.44 | 1.33 | 2.68 | 0.94 | 5.69 | 3.07 | 4.03 | 0.59 |

*p<0.05

Table 14 - We observed a significant effect for men regarding severe *depressive episode* and *mild depressive episode*. The age group 65+ shows higher values for these categories.

Table 15 - Female: 30-day prevalence of ICD disorders by age distribution (%)

| Diagnosis | 18-34 yrs | SE | 35-49 yrs | SE | 50-64 yrs | SE | 65 yrs and above | SE | Over-all | SE |
|------------------------------------|------------------|-------------|------------------|-------------|------------------|-------------|-------------------------|-------------|-----------------|-------------|
| Severe Depressive Episode | 0.22 | 0.10 | 1.87 | 0.84 | 2.84 | 1.41 | 1.89* | 1.25 | 1.15 | 0.32 |
| Moderate Depressive Episode | 0.21 | 0.09 | 0.40 | 0.21 | 0.49 | 0.39 | 0.00 | 0.00 | 0.28 | 0.09 |
| Mild Depressive Episode | 0.15 | 0.09 | 0.02 | 0.02 | 1.64 | 1.27 | 0.00* | 0.00 | 0.34 | 0.21 |
| Mania | 0.02 | 0.02 | 0.00 | 0.00 | 0.39 | 0.39 | 0.00 | 0.00 | 0.07 | 0.06 |
| Hypomania | 0.02 | 0.02 | 0.00 | 0.00 | 0.39 | 0.39 | 0.00 | 0.00 | 0.07 | 0.06 |
| Dysthymia | 0.13 | 0.08 | 0.23 | 0.13 | 1.25 | 1.21 | 0.83 | 0.83 | 0.37 | 0.21 |
| Any affective disorder | 0.69 | 0.18 | 2.29 | 0.86 | 5.00 | 1.91 | 2.72* | 1.50 | 1.89 | 0.39 |
| Panic Disorder | 0.53 | 0.37 | 1.22 | 0.80 | 0.03 | 0.03 | 0.00 | 0.00 | 0.58 | 0.28 |
| Agoraphobia without Panic Disorder | 1.21 | 0.56 | 0.66 | 0.34 | 1.61 | 1.25 | 0.00 | 0.00 | 1.06 | 0.37 |
| Social Phobia | 0.73 | 0.42 | 1.20 | 0.80 | 0.22 | 0.22 | 0.00 | 0.00 | 0.71 | 0.30 |
| Specific Phobia | 6.76 | 1.19 | 3.99 | 1.06 | 6.31 | 2.18 | 4.17 | 2.87 | 5.84 | 0.79 |
| Generalised Anxiety Disorder | 0.51 | 0.37 | 1.45 | 0.83 | 0.66 | 0.43 | 1.69 | 0.98 | 0.84 | 0.30 |
| Post Traumatic Stress Disorder | 0.61 | 0.37 | 0.14 | 0.09 | 0.35 | 0.29 | 2.81 | 2.75 | 0.60 | 0.28 |
| Obsessive Compulsive Disorder | 1.96 | 0.66 | 0.46 | 0.31 | 0.81 | 0.42 | 0.07* | 0.07 | 1.28 | 0.37 |
| Any anxiety disorder | 8.93 | 1.31 | 8.26 | 1.72 | 9.49 | 2.52 | 8.66 | 3.96 | 8.84 | 0.94 |
| Any disorder | 9.30 | 1.31 | 9.93 | 1.87 | 13.77 | 3.02 | 11.24 | 4.16 | 10.29 | 1.00 |

*p<0.05

Table 15 - We observed an age effect in the women's category for *severe depressive episode*, *mild depressive episode*, *any affective disorder* and *obsessive compulsive disorders*. The 50-64 age group shows systematically the highest values except for *obsessive compulsive disorders* where the 18-34 age group shows the highest values.

Table 16 - 30-day prevalence of ICD disorders by residence (%)

| Diagnosis | Urban | SE | Rural | SE | Overall | SE |
|------------------------------------|--------------|-------------|--------------|-------------|----------------|-------------|
| Severe Depressive Episode | 0.85 | 0.24 | 0.59 | 0.19 | 0.75 | 0.17 |
| Moderate Depressive Episode | 0.50 | 0.18 | 0.17 | 0.09 | 0.38 | 0.12 |
| Mild Depressive Episode | 0.25 | 0.16 | 0.34 | 0.27 | 0.28 | 0.14 |
| Mania | 0.04 | 0.03 | 0.08 | 0.08 | 0.06 | 0.04 |
| Hypomania | 0.05 | 0.03 | 0.08 | 0.08 | 0.06 | 0.04 |
| Dysthymia | 0.34 | 0.17 | 0.11 | 0.08 | 0.26 | 0.11 |
| Any affective disorder | 1.74 | 0.35 | 1.17 | 0.35 | 1.54 | 0.26 |
| Panic Disorder | 0.47 | 0.22 | 0.40 | 0.28 | 0.45 | 0.17 |
| Agoraphobia without Panic Disorder | 0.83 | 0.29 | 0.13 | 0.07* | 0.58 | 0.19 |
| Social Phobia | 0.53 | 0.19 | 0.33 | 0.27 | 0.46 | 0.16 |
| Specific Phobia | 3.84 | 0.58 | 3.05 | 0.65 | 3.56 | 0.44 |
| Generalised Anxiety Disorder | 0.64 | 0.23 | 0.82 | 0.39 | 0.71 | 0.20 |
| Post Traumatic Stress Disorder | 0.73 | 0.24 | 0.14 | 0.07* | 0.52 | 0.16 |
| Obsessive Compulsive Disorder | 1.32 | 0.30 | 0.57 | 0.28 | 1.05 | 0.22 |
| Any anxiety disorder | 6.60 | 0.71 | 4.99 | 0.85 | 6.02 | 0.54 |
| Any substance disorder | 0.16 | 0.15 | 0.06 | 0.06 | 0.12 | 0.10 |
| Any disorder | 7.77 | 0.76 | 6.03 | 0.90 | 7.14 | 0.58 |

*p<0.05

Table 16 - For the 30 days prevalence of ICD disorders we observe a significant effect for agoraphobia without panic disorders and post traumatic stress disorders. In both conditions urban values are higher than rural values. These effects are not reflected in the category any disorders.

Table 17 - 30 day prevalence of ICD disorders by region

| Diagnosis | Kurdistan | SE | South/Centre | SE | Overall | SE |
|------------------------------------|------------------|-------------|---------------------|-------------|----------------|-------------|
| Severe Depressive Episode | 0.75 | 0.31 | 0.75 | 0.19 | 0.75 | 0.17 |
| Moderate Depressive Episode | 0.16 | 0.16 | 0.42 | 0.14 | 0.38 | 0.12 |
| Mild Depressive Episode | 0.12 | 0.10 | 0.32 | 0.17 | 0.28 | 0.14 |
| Mania | 0.13 | 0.13 | 0.04 | 0.04 | 0.06 | 0.04 |
| Hypomania | 0.13 | 0.13 | 0.05 | 0.04 | 0.06 | 0.04 |
| Dysthymia | 0.00 | 0.00 | 0.31 | 0.13 | 0.26 | 0.11 |
| Any affective disorder | 1.15 | 0.38 | 1.61 | 0.30 | 1.54 | 0.26 |
| Panic Disorder | 0.08 | 0.08 | 0.52* | 0.21 | 0.45 | 0.17 |
| Agoraphobia without Panic Disorder | 1.43 | 0.71 | 0.41* | 0.17 | 0.58 | 0.19 |
| Social Phobia | 0.89 | 0.39 | 0.37 | 0.17 | 0.46 | 0.16 |
| Specific Phobia | 5.77 | 1.30 | 3.14* | 0.46 | 3.56 | 0.44 |
| Generalised Anxiety Disorder | 0.07 | 0.06 | 0.83* | 0.24 | 0.71 | 0.20 |
| Post Traumatic Stress Disorder | 0.49 | 0.28 | 0.52 | 0.18 | 0.52 | 0.16 |
| Obsessive Compulsive Disorder | 1.67 | 0.69 | 0.93 | 0.22 | 1.05 | 0.22 |
| Any anxiety disorder | 8.94 | 1.57 | 5.46* | 0.57 | 6.02 | 0.54 |
| Any substance disorder | 0.04 | 0.04 | 0.14 | 0.12 | 0.12 | 0.10 |
| Any disorder | 9.59 | 1.59 | 6.67* | 0.62 | 7.14 | 0.58 |

*p<0.05

Table 17 - For the 30 days prevalence of ICD disorders we observed an effect for *panic disorder, agoraphobia without panic disorder, specific phobias, generalized anxiety disorder, any anxiety disorder* and *any disorder*. *Panic disorder* and *generalized anxiety disorder* show higher values in the south/centre region, while *agoraphobia without panic disorder, specific phobia*, and *any anxiety disorder* show higher values in the Kurdistan region... The category *any disorder* is significantly higher for the Kurdistan region.

5. Experience of Trauma

Table 18 - Trauma experience by any lifetime ICD disorder (%)

| Trauma | Case | SE | Noncase | SE | Overall | SE |
|---|--------------|-------------|--------------|-------------|--------------|-------------|
| Life threatening accident | 13.75 | 2.01 | 5.1* | 0.52 | 6.53 | 0.55 |
| Life threatening illness | 10.92 | 1.65 | 4.37* | 0.5 | 5.45 | 0.5 |
| Exposure to toxic chemicals | 4.37 | 0.92 | 2.63 | 0.37 | 2.91 | 0.34 |
| Combat | 18.51 | 2.16 | 12.43* | 0.77 | 13.43 | 0.74 |
| Refugee | 15.17 | 1.86 | 7.26* | 0.58 | 8.57 | 0.55 |
| Internal displacement | 26.6 | 2.35 | 15.19* | 0.8 | 17.08 | 0.76 |
| Intentionally shot at | 10.81 | 1.75 | 4.23* | 0.48 | 5.32 | 0.5 |
| Exposure to shooting | 30.94 | 2.57 | 15.18* | 0.87 | 17.79 | 0.85 |
| Exposure to bomb blast | 27.03 | 2.53 | 12.8* | 0.78 | 15.16 | 0.78 |
| Witness to destruction of places of worship | 8.99 | 1.43 | 7.74* | 0.63 | 7.95 | 0.58 |
| Arrest | 3.61 | 1.1 | 0.86* | 0.23 | 1.32 | 0.26 |
| Capture, kidnap, imprisoned | 9.23 | 1.62 | 4.49* | 0.5 | 5.28 | 0.49 |
| Searched by police/army | 21.88 | 2.13 | 17.45 | 0.93 | 18.18 | 0.84 |
| Public humiliation | 6.95 | 1.58 | 2.73* | 0.41 | 3.43 | 0.43 |
| Accused of collaboration | 4.72 | 1.24 | 1.07* | 0.22 | 1.68 | 0.27 |
| Beaten by parents as child | 13.22 | 1.82 | 3.62* | 0.46 | 5.21 | 0.49 |
| Beaten by spouse | 7.89 | 1.5 | 2.7* | 0.37 | 3.56 | 0.4 |
| Beaten by someone else | 6.47 | 1.33 | 1.59* | 0.32 | 2.4 | 0.35 |
| Sexual assault | 0.79 | 0.59 | 0.03* | 0.02 | 0.16 | 0.1 |
| Causing accidental harm to others | 0.93 | 0.61 | 0.19* | 0.08 | 0.32 | 0.12 |
| Purposefully causing harm to others | 0.91 | 0.37 | 0.57 | 0.19 | 0.63 | 0.17 |
| Witness to killing | 23.54 | 2.25 | 14.67* | 0.88 | 16.14 | 0.82 |
| Witness to mutilated bodies | 17.68 | 2.07 | 8.22* | 0.65 | 9.79 | 0.64 |
| Death of dear one | 21.27 | 2.12 | 12.11* | 0.81 | 13.63 | 0.76 |
| Serious illness in child | 12.09 | 1.66 | 3.63* | 0.45 | 5.03 | 0.47 |
| Family member kidnap | 8.55 | 1.42 | 2.41* | 0.39 | 3.43 | 0.4 |
| Other | 6.81 | 1.33 | 2.41* | 0.42 | 3.14 | 0.42 |
| Any war related trauma | 64.95 | 2.69 | 44.82* | 1.2 | 48.16 | 1.1 |
| Any trauma | 74.78 | 2.52 | 52.3* | 1.22 | 56.02 | 1.11 |

5.1. Trauma experience by lifetime disorders

p<0.05

Table 18 - In the lifetime prevalence rate cases had significant higher exposure to traumatic events except for *capture/kidnap, imprisoned* and *purposefully causing harm to others*. These effects are significantly reflected in the category *any war related trauma* (case 64.95 versus non case 44.82) and *any trauma* (case 74.78 versus non case 52.3).

5.2. Trauma experience by any 12 month disorders

Table 19 - Trauma experience by any 12 month ICD disorder (%)

| Trauma | Case | SE | Noncase | SE | Overall | SE |
|---|--------------|-------------|----------------|-------------|----------------|-------------|
| Life threatening accident | 16.35 | 2.68 | 5.31* | 0.51 | 6.53 | 0.55 |
| Life threatening illness | 12.51 | 2.19 | 4.57 | 0.48 | 5.45 | 0.5 |
| Exposure to toxic chemicals | 5.04 | 1.27 | 2.65* | 0.35 | 2.91 | 0.34 |
| Combat | 16.4 | 2.53 | 13.07 | 0.77 | 13.43 | 0.74 |
| Refugee | 15.4 | 2.25 | 7.71* | 0.57 | 8.57 | 0.55 |
| Internal displacement | 26.56 | 2.92 | 15.9* | 0.79 | 17.08 | 0.76 |
| Intentionally shot at | 10.72 | 2.09 | 4.65* | 0.49 | 5.32 | 0.5 |
| Exposure to shooting | 32.75 | 3.2 | 15.92* | 0.86 | 17.79 | 0.85 |
| Exposure to bomb blast | 26.28 | 3.08 | 13.77* | 0.79 | 15.16 | 0.78 |
| Witness to destruction of places of worship | 8.51 | 1.75 | 7.88* | 0.61 | 7.95 | 0.58 |
| Arrest | 2.03 | 0.96 | 1.23 | 0.27 | 1.32 | 0.26 |
| Capture, kidnap, imprisoned | 9.27 | 2 | 4.78* | 0.5 | 5.28 | 0.49 |
| Searched by police/army | 20.66 | 2.52 | 17.87 | 0.91 | 18.18 | 0.84 |
| Public humiliation | 7.6 | 2.09 | 2.91* | 0.4 | 3.43 | 0.43 |
| Accused of collaboration | 4.74 | 1.56 | 1.3* | 0.24 | 1.68 | 0.27 |
| Beaten by parents as child | 13.57 | 2.36 | 4.17* | 0.46 | 5.21 | 0.49 |
| Beaten by spouse | 7.15 | 1.62 | 3.12* | 0.4 | 3.56 | 0.4 |
| Beaten by someone else | 7.2 | 1.7 | 1.8* | 0.33 | 2.4 | 0.35 |
| Sexual assault | 1.18 | 0.88 | 0.03* | 0.02 | 0.16 | 0.1 |
| Causing accidental harm to others | 1.25 | 0.9 | 0.2* | 0.08 | 0.32 | 0.12 |
| Purposefully causing harm to others | 0.55 | 0.31 | 0.64 | 0.19 | 0.63 | 0.17 |
| Witness to killing | 23.7 | 2.83 | 15.19* | 0.86 | 16.14 | 0.82 |
| Witness to mutilated bodies | 17.21 | 2.56 | 8.86* | 0.65 | 9.79 | 0.64 |
| Death of dear one | 21 | 2.68 | 12.71* | 0.79 | 13.63 | 0.76 |
| Serious illness in child | 13.64 | 2.19 | 3.96* | 0.45 | 5.03 | 0.47 |
| Family member kidnap | 9.47 | 1.96 | 2.67* | 0.38 | 3.43 | 0.4 |
| Other | 6.32 | 1.33 | 2.74* | 0.44 | 3.14 | 0.42 |
| Any war related trauma | 63.23 | 3.3 | 46.28* | 1.17 | 48.16 | 1.1 |
| Any trauma | 73.18 | 3.11 | 53.88* | 1.18 | 56.02 | 1.11 |

*p<0.05

Table 19 - In the 12 months prevalence of ICD disorders cases had higher significant exposure to traumatic events for every category except for *arrest*, *life threatening illness* and *purposefully causing harm to others*. Participants reported exposure to shooting, internal displacement, exposure to bomb blast, or being a witness to killing.

5.3. Trauma experience by gender

Table 20: Trauma experience by sex (%)

| Trauma | Males | SE | Females | SE | Overall | SE |
|---|--------------|-------------|---------------|-------------|--------------|-------------|
| Life threatening accident | 10.27 | 0.96 | 2.74* | 0.52 | 6.53 | 0.55 |
| Life threatening illness | 6.61 | 0.78 | 4.29 | 0.61 | 5.45 | 0.5 |
| Exposure to toxic chemicals | 5.01 | 0.63 | 0.79* | 0.25 | 2.91 | 0.34 |
| Combat | 25.73 | 1.35 | 0.99* | 0.31 | 13.43 | 0.74 |
| Refugee | 10.02 | 0.91 | 7.1* | 0.72 | 8.57 | 0.55 |
| Internal displacement | 17.46 | 1.1 | 16.7 | 1.16 | 17.08 | 0.76 |
| Intentionally shot at | 9.36 | 0.93 | 1.24* | 0.29 | 5.32 | 0.5 |
| Exposure to shooting | 26.86 | 1.39 | 8.6* | 0.91 | 17.79 | 0.85 |
| Exposure to bomb blast | 22.71 | 1.33 | 7.51* | 0.78 | 15.16 | 0.78 |
| Witness to destruction of places of worship | 10.72 | 0.93 | 5.15* | 0.69 | 7.95 | 0.58 |
| Arrest | 2.33 | 0.49 | 0.3* | 0.2 | 1.32 | 0.26 |
| Capture, kidnap, imprisoned | 9.33 | 0.87 | 1.17* | 0.43 | 5.28 | 0.49 |
| Searched by police/army | 19.95 | 1.27 | 16.39 | 1.19 | 18.18 | 0.84 |
| Public humiliation | 5.48 | 0.76 | 1.35* | 0.38 | 3.43 | 0.43 |
| Accused of collaboration | 2.27 | 0.45 | 1.08* | 0.31 | 1.68 | 0.27 |
| beaten by parents as child | 7.2 | 0.8 | 3.19* | 0.56 | 5.21 | 0.49 |
| Beaten by spouse | 0.4 | 0.21 | 6.77* | 0.77 | 3.56 | 0.4 |
| Beaten by someone else | 3.64 | 0.61 | 1.15* | 0.32 | 2.4 | 0.35 |
| Sexual assault | 0.27 | 0.19 | 0.05 | 0.05 | 0.16 | 0.1 |
| Causing accidental harm to others | 0.61 | 0.24 | 0.02* | 0.02 | 0.32 | 0.12 |
| Purposefully causing harm to others | 1.23 | 0.34 | 0.02* | 0.01 | 0.63 | 0.17 |
| Witness to killing | 24.96 | 1.36 | 7.2* | 0.84 | 16.14 | 0.82 |
| Witness to mutilated bodies | 15.85 | 1.15 | 3.65* | 0.51 | 9.79 | 0.64 |
| Death of dear one | 16.78 | 1.22 | 10.43* | 0.89 | 13.63 | 0.76 |
| Serious illness in child | 3.95 | 0.54 | 6.13 | 0.77 | 5.03 | 0.47 |
| Family member kidnap | 3.8 | 0.59 | 3.05 | 0.55 | 3.43 | 0.4 |
| Other | 4.38 | 0.73 | 1.88* | 0.4 | 3.14 | 0.42 |
| Any war related trauma | 60.16 | 1.56 | 36* | 1.52 | 48.16 | 1.1 |
| Any trauma | 65.87 | 1.52 | 46.05* | 1.59 | 56.02 | 1.11 |

*p<0.05

Table 20 - Significant results indicate that except for the category *being beaten by spouse*, where women show higher significant values, men show systematically higher values. This is reflected in the more general categories *any trauma* (men 65.87 versus women 46.05), and *any war related trauma* (men 60.16 versus women 36).

Table 21 - Number of traumatic events by any 12 month ICD disorder and sex (%)

| Trauma | Male | | | | Female | | | | Overall | | | | Total |
|--------------------------|------|-----|---------|------|--------|-----|---------|-----|---------|------|---------|------|-------|
| | Case | SE | Noncase | SE | Case | SE | Noncase | SE | Case | SE | Noncase | SE | |
| No trauma | 17.4 | 4.3 | | | 33.0 | 4.1 | | 1.7 | 26.8 | | | | 43.9 |
| 1-2 trauma events | 1 | 8 | 35.74* | 1.60 | 6 | 8 | 57.19* | 1 | 2 | 3.11 | 46.12* | 1.18 | 8 |
| 3-5 trauma events | 13.3 | 3.8 | | | 32.3 | 4.0 | | 1.5 | 24.7 | | | | 26.4 |
| 6-11 trauma events | 0 | 7 | 26.41* | 1.46 | 4 | 2 | 26.81* | 6 | 5 | 2.93 | 26.61* | 1.06 | 19.1 |
| 12 or more trauma events | 23.9 | 4.5 | | | 25.2 | 3.6 | | 1.1 | 24.7 | | | | 5 |
| | 4 | 4 | 23.31* | 1.42 | 1 | 5 | 13.27* | 1 | 0 | 2.84 | 18.46* | 0.92 | |
| | 40.0 | 5.4 | | | | 2.3 | | 0.5 | 21.3 | | | | |
| | 9 | 1 | 13.65* | 1.10 | 8.99 | 4 | 2.72* | 6 | 9 | 2.79 | 8.37* | 0.64 | 9.81 |
| | | 2.3 | | | | 0.2 | | 0.0 | | | | | |
| | 5.26 | 6 | 0.88* | 0.28 | 0.40 | 9 | 0.00* | 0 | 2.34 | 0.97 | 0.45* | 0.14 | 0.66 |
| Total | 100 | | 100 | | 100 | | 100 | | 100 | | 100 | | 100 |

*p<0.05

Table 22 - Number of traumatic events by any lifetime ICD disorder and sex (%)

| Trauma | Male | | | | Female | | | | Overall | | | | Total |
|--------------------------|-------|------|---------|------|--------|------|---------|------|---------|------|---------|------|-------|
| | Case | SE | Noncase | SE | Case | SE | Noncase | SE | Case | SE | Noncase | SE | |
| No trauma | 14.23 | 3.19 | 37.29* | 1.66 | 33.05 | 3.51 | 59.00* | 1.77 | 25.22 | 2.52 | 47.70* | 1.22 | 43.98 |
| 1-2 trauma events | | | | | | | | | | | | | |
| 3-5 trauma events | 14.20 | 3.04 | 27.02* | 1.51 | 32.19 | 3.39 | 26.43* | 1.62 | 24.71 | 2.41 | 26.74* | 1.10 | 26.4 |
| 6-11 trauma events | 31.90 | 4.10 | 22.01* | 1.43 | 26.11 | 3.02 | 12.16* | 1.12 | 28.52 | 2.47 | 17.29* | 0.92 | 19.15 |
| 12 or more trauma events | 34.80 | 4.15 | 12.99* | 1.11 | 8.36 | 1.78 | 2.41* | 0.58 | 19.36 | 2.15 | 7.92* | 0.65 | 9.81 |
| | 4.88 | 1.68 | 0.69* | 0.27 | 0.28 | 0.20 | 0.00* | 0.00 | 2.19 | 0.71 | 0.36* | 0.14 | 0.66 |
| Total | 100 | | 100 | | 100 | | 100 | | 100 | | 100 | | 100 |

*p<0.05

Tables 21 and 22 - Results indicate that in both 12 month and lifetime prevalence rates of ICD disorder, a greater number of traumatic events are seen among those who meet the criteria for a psychiatric diagnosis. This effect is observed in both males and females

5.4. Trauma experience by region

Table 23 - Trauma experience by region (%)

| Trauma | Kurdistan | SE1 | South/Centre | SE2 | Overall | SET |
|---|------------------|-------------|---------------------|------------|----------------|-------------|
| Life threatening accident | 6.67 | 0.62 | 5.81* | 1.19 | 6.53 | 0.55 |
| Life threatening illness | 5.42 | 0.56 | 5.64 | 1.02 | 5.45 | 0.50 |
| Exposure to toxic chemicals | 2.99 | 0.39 | 2.50 | 0.61 | 2.91 | 0.34 |
| Combat | 13.36 | 0.82 | 13.83 | 1.75 | 13.43 | 0.74 |
| Refugee | 3.06 | 0.40 | 37.34* | 2.46 | 8.57 | 0.55 |
| Internal displacement | 12.98 | 0.76 | 38.52* | 2.46 | 17.08 | 0.76 |
| Intentionally shot at | 4.90 | 0.54 | 7.52 | 1.31 | 5.32 | 0.50 |
| Exposure to shooting | 17.71 | 0.94 | 18.21 | 1.97 | 17.79 | 0.85 |
| Exposure to bomb blast | 12.47 | 0.83 | 29.20* | 2.20 | 15.16 | 0.78 |
| Witness to destruction of places of worship | 7.84 | 0.63 | 8.52 | 1.39 | 7.95 | 0.58 |
| Arrest | 1.05 | 0.26 | 2.72 | 0.95 | 1.32 | 0.26 |
| Capture, kidnap, imprisoned | 4.22 | 0.50 | 10.78* | 1.64 | 5.28 | 0.49 |
| Searched by police/army | 18.05 | 0.93 | 18.88 | 2.04 | 18.18 | 0.84 |
| Public humiliation | 2.77 | 0.44 | 6.89* | 1.41 | 3.43 | 0.43 |
| Accused of collaboration | 1.28 | 0.27 | 3.76* | 1.00 | 1.68 | 0.27 |
| beaten by parents as child | 4.62 | 0.54 | 8.25* | 1.17 | 5.21 | 0.49 |
| Beaten by spouse | 3.18 | 0.42 | 5.57 | 1.21 | 3.56 | 0.4 |
| Beaten by someone else | 1.99 | 0.36 | 4.51* | 1.06 | 2.4 | 0.35 |
| Sexual assault | 0.07 | 0.04 | 0.59* | 0.59 | 0.16 | 0.1 |
| Causing accidental harm to others | 0.16 | 0.07 | 1.14* | 0.64 | 0.32 | 0.12 |
| Purposefully causing harm to others | 0.58 | 0.19 | 0.89 | 0.39 | 0.63 | 0.17 |
| Witness to killing | 14.77 | 0.88 | 23.26* | 2.19 | 16.14 | 0.82 |
| Witness to mutilated bodies | 9.99 | 0.72 | 8.73 | 1.27 | 9.79 | 0.64 |
| Death of dear one | 12.13 | 0.82 | 21.45* | 2.01 | 13.63 | 0.76 |
| Serious illness in child | 5.01 | 0.54 | 5.12 | 0.82 | 5.03 | 0.47 |
| Family member kidnap | 2.92 | 0.4 | 6.07* | 1.34 | 3.43 | 0.4 |
| Other | 3.44 | 0.48 | 1.53* | 0.69 | 3.14 | 0.42 |
| Any war related trauma | 44.72 | 1.23 | 66.13* | 2.28 | 48.16 | 1.1 |
| Any trauma | 53.28 | 1.25 | 70.36* | 2.2 | 56.02 | 1.11 |

*p<0.05

Table 23 - We observed significant differences by region. The centre/south region shows higher values for *refugee*, *international displacement*, *exposure to bomb blast*, *capture*, *public humiliation*, *accused of collaboration*, *beaten by parents as child*, *beaten by someone else*, *sexual assault*, *causing accidental harm to others*, *witness to killing*, *death of dear one*, *family member kidnap*, *any war related trauma*, *any trauma* and *other*. The Kurdistan region shows higher values for the categories *life threatening illness* and *other*. These specific results are reflected in the more general categories *any war related trauma* (Kurdistan region.44.72 versus south/centre region 66.13) and *any trauma* (Kurdistan region.53.28 versus south/centre 70.36).

6. Association between Mental Disorders and Socio-Demographic Characteristic

6.1. Education

| Table 24 - Prevalence of mental disorders and years of schooling (%) | | | | | |
|---|-------------------|------------------|-------------------|-----------------------|----------------|
| Category | <1Years | 1-6 years | 7-12 years | Above 12 years | Overall |
| 12 month Prevalence | | | | | |
| Any affective disorder | 4.99 | 4.62 | 2.57 | 3.82 | 3.99 |
| Any anxiety disorder | 8.95 | 8.87 | 9.53 | 5.98 | 8.58 |
| Any substance use disorder | 0.00 | 0.32 | 0.44 | 0.09 | 0.25 |
| Any mental disorder | 11.59 | 11.39 | 11.81 | 8.68 | 11.09 |
| Life time Prevalence | | | | | |
| Any affective disorder | 10.13 | 8.43 | 5.95 | 6.75 | 7.82 |
| Any anxiety disorder | 12.35 | 11.66 | 13.14 | 7.94 | 11.58 |
| Any substance use disorder | 0.17 | 1.79 | 0.84 | 0.32 | 0.92 |
| Any mental disorder | 18.68 | 17.24 | 16.50 | 12.64 | 16.56 |
| 30 day prevalence | | | | | |
| Any affective disorder | 1.60 | 2.07 | 1.38 | 0.67 | 1.54 |
| Any anxiety disorder | 7.07 | 6.41 | 6.79 | 2.67 | 6.02 |
| Any substance use disorder | 0.00 | 0.29 | 0.10 | 0.00 | 0.12 |
| Any mental disorder | 8.39 | 7.71 | 7.83 | 3.33* | 7.14 |

*p<0.05

Table 24 - We observe a significant difference for the category *any mental disorder*, the > 1 year of schooling group showing the highest value (8.39) while the category above 12 years of schooling shows the lowest values (3.33)

6.2. Income distribution

| Table 25 - Prevalence of mental disorders and income distribution (%) | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|
| Category | Q1(lowest) | Q2 | Q3 | Q4(highest) | Overall |
| 12 month Prevalence | | | | | |
| Any affective disorder | 4.33 | 4.07 | 3.06 | 3.96 | 3.99 |
| Any anxiety disorder | 8.5 | 7.98 | 8.76 | 8.9 | 8.58 |
| Any substance use disorder | 0.35 | 0.00 | 0.91 | 0.05 | 0.25 |
| Any mental disorder | 10.89 | 10.67 | 11.16 | 11.47 | 11.00 |
| Life time Prevalence | | | | | |
| Any affective disorder | 8.68 | 6.89 | 6.04 | 8.13 | 7.82 |
| Any anxiety disorder | 11.14 | 9.98 | 12.60 | 12.48 | 11.58 |
| Any substance use disorder | 1.24 | 0.51 | 1.33 | 0.71 | 0.92 |
| Any mental disorder | 16.41 | 14.62 | 17.49 | 17.40 | 16.56 |
| 30 day prevalence | | | | | |
| Any affective disorders | 1.24 | 1.96 | 1.86 | 1.48 | 1.54 |
| Any anxiety disorder | 6.24 | 6.06 | 7.49 | 5.29 | 6.02 |
| Any substance use disorder | 0.35 | 0.00 | 0.00 | 0.02 | 0.12 |
| Any mental disorder | 7.13 | 7.56 | 8.22 | 6.56 | 7.14 |

Table 25 - There are no significant differences related to income category.

6.3. Marital Status

| Table 26 - Prevalence of mental disorders and marital status (%) | | | | |
|---|------------|-----------------|---------------|-------------|
| Category | Married | Widowed/Div/Sep | Never Married | Overall |
| 12 month Prevalence | | | | |
| Any affective disorder | 3.68 | 10.33* | 3.01 | 3.99 |
| Any anxiety disorder | 7.89 | 14.26* | 8.68 | 8.58 |
| Any substance use disorder | 0.18 | 1.28 | 0.12 | 0.25 |
| Any mental disorder | 10.38 | 18.87* | 10.67 | 11.09 |
| Life time Prevalence | | | | |
| Any affective disorder | 7.72 | 20.72* | 4.5 | 7.82 |
| Any anxiety disorder | 11.25 | 17.45* | 10.78 | 11.58 |
| Any substance use disorder | 0.79 | 1.28 | 1.13 | 0.92 |
| Any mental disorder | 16.03 | 29.99* | 14.15 | 16.56 |
| 30 day prevalence | | | | |
| Any affective disorder | 1.57 | 4.72** | 0.59 | 1.54 |
| Any anxiety disorder | 5.75 | 9.7* | 5.71 | 6.02 |
| Any substance use disorder | 0.01 | 1.28 | 0.08 | 0.12 |
| Any mental disorder | 6.8 | 13.68* | 6.16 | 7.14 |

*p<0.05

Table 26 - We observe significant differences for *any affective disorders*, *any anxiety disorders*, and *any mental disorders*. For lifetime prevalence, 12 month prevalence and 30 days prevalence the group widow/divorced/separated shows systematically the highest values.

6.4. Employment status

Table 27 - Lifetime diagnosis and employment status (%)

| Diagnosis | Empl oyed | SE | Student | SE | Hom emak er | SE | Retir ed | SE | Une mplo yed | SE | Over -all | SE |
|--|--------------|-------------|--------------|-------------|-------------------|-------------|--------------|-------------|--------------------|-------------|--------------|-------------|
| Severe Depressive Episode | 1.97 | 0.38 | 1.91 | 1.55 | 4.11 | 0.88 | 3.95 | 2.71 | 5.85* | 1.22 | 3.50 | 0.42 |
| Moderate Depressive Episode | 2.65 | 0.58 | 1.80 | 0.94 | 2.47 | 0.55 | 2.88 | 1.59 | 3.81 | 0.98 | 2.83 | 0.37 |
| Mild Depressive Episode | 0.66 | 0.19 | 0.40 | 0.29 | 0.74 | 0.22 | 3.56 | 2.75 | 2.28* | 0.75 | 1.15 | 0.22 |
| Mania | 0.23 | 0.11 | 0.00 | 0.00 | 0.15 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 | 0.05 |
| Hypomania | 0.24 | 0.11 | 0.00 | 0.00 | 0.72 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.29 | 0.12 |
| Dysthymia | 0.47 | 0.27 | 0.00 | 0.00 | 0.55 | 0.21 | 2.66 | 2.61 | 0.78 | 0.45 | 0.61 | 0.19 |
| Any affective disorder | 5.49 | 0.72 | 4.12 | 1.82 | 7.77 | 1.06 | 13.05 | 4.63 | 12.14 * | 1.66 | 7.82 | 0.60 |
| Panic Disorder | 0.61 | 0.34 | 0.00 | 0.00 | 0.72 | 0.39 | 0.00 | 0.00 | 0.87 | 0.45 | 0.64 | 0.20 |
| Agoraphobia without Panic Disorder | 0.37 | 0.16 | 0.00 | 0.00 | 1.61 | 0.58 | 0.00 | 0.00 | 1.07 | 0.50 | 0.82 | 0.20 |
| Social Phobia | 0.99 | 0.33 | 0.00 | 0.00 | 1.34 | 0.46 | 0.00 | 0.00 | 0.95 | 0.46 | 0.97 | 0.21 |
| Specific Phobia | 3.27 | 0.62 | 6.49 | 2.67 | 8.14 | 1.18 | 4.04 | 2.75 | 5.90 | 1.10 | 5.38 | 0.51 |
| Generalised Anxiety Disorder | 1.99 | 0.53 | 0.22 | 0.22 | 2.15 | 0.68 | 3.20 | 2.63 | 2.19 | 0.74 | 2.01 | 0.34 |
| Post Traumatic Stress Disorder | 4.34 | 0.68 | 2.20 | 1.66 | 3.48 | 0.75 | 0.26 | 0.27 | 3.27 | 0.82 | 3.59 | 0.40 |
| Obsessive Compulsive Disorder | 1.60 | 0.40 | 0.97 | 0.76 | 1.57 | 0.48 | 1.50 | 1.03 | 1.27 | 0.60 | 1.47 | 0.26 |
| Any anxiety disorder | 10.32 | 1.05 | 9.40 | 3.14 | 14.35 | 1.49 | 8.94 | 3.83 | 11.67 | 1.55 | 11.58 | 0.72 |
| Any substance disorder | 1.20 | 0.39 | 0.00 | 0.00 | 0.38 | 0.36 | 0.71 | 0.71 | 1.32 | 0.62 | 0.92 | 0.24 |
| Any disorder | 13.86 | 1.17 | 11.63 | 3.26 | 18.85 | 1.65 | 18.46 | 5.21 | 19.73 | 1.97 | 16.56 | 0.84 |

*p<0.05

Table 27 - We observed an effect of employment status for *severe depressive episode, mild depressive episode, any affective disorders*. The unemployed group show the highest values for *severe depressive episode* while the retired group show the highest values for *mild depressive episode*. For the category *any affective disorders*, the unemployed group show the highest values.

6.5. Multivariate analysis

| Table 28 - Multi-variate analysis of lifetime prevalence by sociodemographic variables | | | | | | | |
|---|----------------------------|------------------------|-------|----------------------|------|---------------|-------|
| | | any affective disorder | | any anxiety disorder | | any disorder | |
| | | Odds ratio | SE | Odds ratio | SE | Odds ratio | SE |
| age | 35-49 | 1.06 | 0.15 | 1.09 | 0.13 | 1.06 | 0.11 |
| | 50-64 | 1.32 | 0.24 | 0.99 | 0.17 | 1.19 | 0.17 |
| | 65+ | 1.51 | 0.39 | 1.34 | 0.33 | 1.32 | 0.28 |
| sex | Male | 0.37* | 0.05 | 0.26* | 0.03 | 0.33* | 0.03 |
| education | Primary | 1.38 | 0.24 | 1.46* | 0.22 | 1.44* | 0.19 |
| | Secondary | 1.12 | 0.22 | 1.58* | 0.26 | 1.38* | 0.20 |
| | Higher | 1.35 | 0.31 | 1.75* | 0.34 | 1.61* | 0.27 |
| marital status | separated divorced widowed | 1.80* | 0.32 | 1.12 | 0.19 | 1.47 | 0.22 |
| | never married | 0.98 | 0.18 | 1.16 | 0.17 | 1.12 | 0.14 |
| income | middle rich | 0.84 | 0.16 | 1.05 | 0.16 | 1.05 | 0.14 |
| | middle poor | 0.97 | 0.16 | 1.02 | 0.14 | 1.00 | 0.12 |
| | Poorest | 1.10 | 0.16 | 0.93 | 0.12 | 1.00 | 0.11 |
| region | Kurdistan | 0.94 | 0.14 | 1.12 | 0.14 | 1.10 | 0.12 |
| trauma events | 1-2 events | 2.85* | 0.48 | 2.31* | 0.31 | 2.41* | 0.28 |
| | 3-5 events | 5.39* | 0.91 | 4.55* | 0.63 | 4.89* | 0.59 |
| | 6-11 events | 10.91* | 2.16 | 10.01* | 1.69 | 9.26* | 1.38 |
| | 12+ events | 25.44* | 10.73 | 22.96* | 8.98 | 33.14* | 12.61 |
| *significant p<0.05 | | | | | | | |

Table 28 - This shows the effects of different sociodemographic variables on the lifetime prevalence of different groups of mental disorders. Controlling for other characteristics, females are at a significantly higher risk for all groups of mental disorders assessed. Being separated, divorced or widowed increases the risk of affective disorders almost twofold. Exposure to traumatic events significantly increases the risks for all mental disorders with a clear, direct dose-related effect – the higher the number of traumatic events one is exposed to the higher the risk of developing mental disorders.

The analysis also reveals that, as compared to those with no formal education, the respondents who are educated are at a higher risk for anxiety disorders. There are no significant differences across income levels and age groups and no differences between the Kurdistan region and the rest of the country.

| Table 29 - Multi-variate analysis of 12-month prevalence by socio-demographic variables | | | | | | | |
|--|----------------------------|------------------------|-------|----------------------|------|---------------|------|
| | | Any affective disorder | | Any anxiety disorder | | Any disorder | |
| | | Odds ratio | SE | Odds ratio | SE | Odds ratio | SE |
| age | 35-49 | 1.37 | 0.26 | 1.08 | 0.14 | 1.09 | 0.13 |
| | 50-64 | 1.15 | 0.30 | 0.92 | 0.18 | 0.95 | 0.16 |
| | 65+ | 2.45* | 0.83 | 0.88* | 0.26 | 1.31* | 0.32 |
| sex | Male | 0.34* | 0.06 | 0.26* | 0.04 | 0.29* | 0.04 |
| education | Primary | 1.83* | 0.44 | 1.54* | 0.27 | 1.60* | 0.25 |
| | Secondary | 1.29 | 0.36 | 1.69* | 0.32 | 1.61* | 0.28 |
| | Higher | 1.52 | 0.48 | 1.72 | 0.38 | 1.70 | 0.34 |
| marital status | separated divorced widowed | 1.65 | 0.39 | 1.36 | 0.26 | 1.35 | 0.23 |
| | never married | 1.38 | 0.32 | 1.13 | 0.18 | 1.24 | 0.18 |
| income | middle rich | 0.88 | 0.22 | 0.98 | 0.17 | 0.98 | 0.16 |
| | middle poor | 0.90 | 0.20 | 1.07 | 0.17 | 1.03 | 0.15 |
| | Poorest | 1.10 | 0.21 | 0.93 | 0.13 | 1.01 | 0.13 |
| region | Kurdistan | 0.74 | 0.15 | 1.14 | 0.16 | 1.01 | 0.13 |
| trauma events | 1-2 events | 2.41* | 0.55 | 2.10* | 0.32 | 2.14* | 0.29 |
| | 3-5 events | 4.49* | 1.02 | 3.28* | 0.51 | 3.67* | 0.51 |
| | 6-11 events | 11.14* | 2.87 | 7.60* | 1.43 | 8.19* | 1.39 |
| | 12+ events | 32.39* | 16.00 | 16.19* | 6.98 | 21.39* | 8.35 |

* Significant $p < 0.05$

Table 29 - This shows the effects of different socio-demographic variables on the 12 month prevalence of different groups of mental disorders. Controlling for other characteristics, females are at a significantly higher risk for all groups of mental disorders assessed. Being separated, divorced or widowed increases the risk of having affective disorders more than one and a half times. Exposure to traumatic events significantly increases the risks for all mental disorders with a clear, direct dose-related effect – the higher the number of traumatic events one is exposed to the greater the risk of developing mental disorders.

The analysis also reveals that, as compared to those with no formal education, the respondents who are educated are at a higher risk for anxiety disorders. The oldest adults are at a significantly higher risk of having mental disorders in a 12 month period. There are no significant differences across income levels and no differences between the Kurdistan region and the rest of the country.

7. Substance Use

7.1. Distribution of substance use among the sample

| Table 30 - Distribution of substance use among the population (%) | | | | | |
|--|----------------------------|-------------------------|-------------------------|--------------------------------|-------------------------------|
| | | lifetime use of alcohol | 12 month use of alcohol | lifetime substance harmful use | lifetime substance dependence |
| Sex | Female | 0.58 | 0.41 | 0.25 | 0.00 |
| | Male | 6.82 | 2.93 | 1.29 | 0.47 |
| Residence | Rural | 2.62 | 1.04 | 0.21 | 0.07 |
| | Urban | 4.34 | 2.04 | 1.09 | 0.33 |
| Region | Kurdistan | 6.38 | 4.55 | 0.35 | 0.64 |
| | South/ Centre | 3.21 | 1.13 | 0.85 | 0.16 |
| Income quartile | Q1(lowest) | 3.26 | 1.18 | 1.24 | 0.10 |
| | Q2 | 3.05 | 1.43 | 0.43 | 0.08 |
| | Q3 | 3.17 | 1.58 | 1.33 | 0.00 |
| | Q4(highest) | 4.68 | 2.31 | 0.33 | 0.53 |
| Marital Status | Married | 4.19 | 1.43 | 0.76 | 0.15 |
| | Separated Divorced Widowed | 1.62 | 1.28 | 1.28 | 0.00 |
| | Never married | 3.17 | 2.41 | 0.65 | 0.50 |
| Education | 0 years | 0.87 | 0.13 | 0.17 | 0.00 |
| | 1-6 years | 4.59 | 2.67 | 1.36 | 0.62 |
| | 7-12 years | 3.91 | 1.50 | 0.82 | 0.11 |
| | 12+ years | 5.34 | 2.03 | 0.32 | 0.00 |

Table 30 - Observations shows for lifetime use of alcohol and 12 month use of alcohol males have higher value than women, urban higher than rural, the Kurdistan region higher than the centre/south region, married higher than separated/widow/divorced, and finally the 12+ years of education group shows higher values than other groups. For harmful use results are quite similar except that south/centre region shows higher values than the Kurdistan region, while the widow/divorced /separated group shows higher values than the married group. Substance dependence remains very low.

7.2. Prevalence of tobacco dependence

Table 31 – Prevalence of tobacco dependence

| | | Lifetime dependence | 12 month dependence |
|-----------------|--------------------|---------------------|---------------------|
| Sex | Female | 1.63 | 1.06 |
| | Male | 6.64 | 4.33 |
| Age | 18-34 yrs | 2.46 | 1.94 |
| | 35-49 yrs | 5.65 | 3.53 |
| | 50-64 yrs | 5.33 | 2.46 |
| | 65 yrs and above | 9.92 | 6.59 |
| Residence | Rural | 5.29 | 3.63 |
| | Urban | 3.51 | 2.19 |
| Region | Kurdistan | 3.34 | 1.72 |
| | South/ Centre | 4.30 | 2.89 |
| Income quartile | Q1(lowest) | 4.36 | 2.51 |
| | Q2 | 3.04 | 2.34 |
| | Q3 | 2.94 | 2.29 |
| | Q4(highest) | 4.95 | 3.22 |
| Marital Status | Married | 4.80 | 3.31 |
| | Separated Divorced | | |
| | Widowed | 5.64 | 2.88 |
| | Never married | 2.16 | 1.18 |
| Education | 0 years | 5.11 | 3.68 |
| | 1-6 years | 4.10 | 2.57 |
| | 7-12 years | 4.05 | 2.22 |
| | 12+ years | 3.19 | 2.53 |
| Total | | 4.15 | 2.75 |

Table 31 - Tobacco dependence shows higher values in the south/centre region, in the 65+, rural area, separated/divorced/widow/ and low education groups.

8. Disability and Mental Disorders

8.1. Association between mental disorders and WHO-DAS scores (30 days)

| Diagnosis | | Mean WHO-DAS score | | |
|------------------------------------|---------|--------------------|---------|---------|
| | | Males | Females | Overall |
| Severe depressive episode | Case | 21.52 | 16.70 | 17.86* |
| | Noncase | 3.55 | 4.93 | 4.24 |
| Moderate depressive episode | Case | 19.69 | 22.18 | 20.61* |
| | Noncase | 3.54 | 5.02 | 4.28 |
| Mild depressive episode | Case | 31.35 | 13.27 | 20.51* |
| | Noncase | 3.56 | 5.04 | 4.29 |
| Mania | Case | 0.55 | 13.54 | 8.38* |
| | Noncase | 3.62 | 5.06 | 4.34 |
| Hypomania | Case | 2.70 | 13.54 | 8.59* |
| | Noncase | 3.62 | 5.06 | 4.34 |
| Dysthymia | Case | 8.66 | 13.79 | 12.36* |
| | Noncase | 3.61 | 5.04 | 4.32 |
| Any affective disorder | Case | 20.64 | 17.82 | 18.91* |
| | Noncase | 3.41 | 4.82 | 4.11 |
| Panic Disorder | Case | 27.96 | 13.90 | 18.80* |
| | Noncase | 3.54 | 5.02 | 4.27 |
| Agoraphobia without Panic Disorder | Case | 30.51 | 17.18 | 18.36* |
| | Noncase | 3.59 | 4.94 | 4.26 |
| Social Phobia | Case | 7.61 | 24.13 | 20.44* |
| | Noncase | 3.61 | 4.93 | 4.26 |
| Specific Phobia | Case | 7.54 | 10.07 | 9.60* |
| | Noncase | 3.57 | 4.76 | 4.14 |
| Generalised Anxiety Disorder | Case | 16.93 | 19.00 | 18.16* |
| | Noncase | 3.54 | 4.95 | 4.24 |
| Post Traumatic Stress Disorder | Case | 12.01 | 21.87 | 17.73* |
| | Noncase | 3.58 | 4.97 | 4.27 |
| Any anxiety disorder | Case | 9.80 | 11.00 | 10.72* |
| | Noncase | 3.46 | 4.55 | 3.99 |
| Any disorder | Case | 12.31 | 12.12 | 12.17* |
| | Noncase | 3.32 | 4.32 | 3.80 |

*p<0.05

Table 32 - This shows the data for patients with a 30 day prevalence of mental disorder (case) as compared to non-cases. It is observed that overall the cases had higher disability (12.17) as compared to non cases (3.80). This effect is seen in all diagnostic groups and in both sexes except in *mania* and *hypomania* where case males show lower WHO-DAS scores.

8.2. Association between mental disorders and WHO-DAS scores (lifetime)

Table 33 -Lifetime prevalence of pure ICD disorders by mean global WHO-DAS score and sex

| Diagnosis | Mean WHO-DAS score | | | | Overall | SE |
|------------------------------------|--------------------|------|---------|------|---------|------|
| | Males | SE | Females | SE | | |
| No disorder | 2.58 | 0.25 | 3.82 | 0.32 | 3.17 | 0.21 |
| Severe Depressive Episode | 23.47 | 3.97 | 14.61 | 5.06 | 16.78 | 4.02 |
| Moderate Depressive Episode | 11.50 | 5.57 | 9.81 | 3.71 | 10.64 | 3.30 |
| Mild Depressive Episode | 13.68 | 7.70 | 7.87 | 1.86 | 10.29 | 3.66 |
| Mania | | | | | | |
| Hypomania | 10.50 | 0.00 | | | 10.50 | 0.00 |
| Dysthymia | 14.20 | 5.86 | 33.80 | 7.82 | 20.50 | 6.64 |
| Panic Disorder | 12.44 | 0.31 | 6.13 | 3.40 | 8.93 | 2.78 |
| Agoraphobia without Panic Disorder | | | 7.37 | 2.09 | 7.37 | 2.09 |
| Social Phobia | 3.30 | 1.72 | 13.99 | 4.34 | 12.22 | 4.43 |
| Specific Phobia | 3.24 | 1.47 | 4.01 | 0.79 | 3.82 | 0.69 |
| Generalised anxiety disorder | 4.49 | 1.82 | 18.35 | 5.71 | 11.74 | 3.94 |
| Post Traumatic Stress Disorder | 9.54 | 2.48 | 4.61 | 1.91 | 7.98 | 1.94 |
| Obsessive Compulsive Disorder | 4.55 | 1.50 | 8.95 | 3.24 | 6.49 | 1.73 |

8.3. Comparisons between physical and mental handicaps

Table 34 - Pure Physical, Pure Physical plus any mental condition by mean global WHO-DAS score

| Physical condition | Pure Physical | | Pure Physical plus any lifetime mental condition | SE |
|---------------------------|---------------|------|--|------|
| | Physical | SE | | |
| None | 1.43 | 0.17 | | |
| Arthritis | 4.35 | 1.07 | 16.79 | 3.86 |
| Back or neck pain | 3.27 | 0.58 | 8.87 | 2.93 |
| Frequent severe headaches | 5.18 | 1.12 | 8.97 | 3.87 |
| Seasonal allergies | 1.87 | 0.40 | 13.53 | 6.96 |
| High blood pressure | 1.69 | 0.65 | 4.68 | 1.51 |
| Heart Disease | 3.80 | 2.24 | 4.70 | 2.39 |
| Asthma | 1.98 | 1.19 | 11.41 | 1.60 |
| Diabetes | 1.79 | 1.03 | 5.79 | 2.41 |
| Ulcers | 2.12 | 0.99 | 0.66 | 0.63 |

Tables 33 and 34 - No significant differences are observed.

9. Mental disorders and treatments

9.1. Prevalence of medical treatment (12 months)

Table 35 - Proportion of people with 12 month prevalence of ICD disorders who have received medical treatment

| Diagnosis | Treatment | Number |
|------------------------------------|-------------|------------|
| Severe Depressive episode | 8.88 | 90 |
| Moderate Depressive episode | 9.29 | 60 |
| Mild Depressive episode | 3.29 | 29 |
| Dysthymia | 1.09 | 21 |
| Mania | 43.41 | 6 |
| Hypomania | 39.81 | 7 |
| Any affective disorder | 8.44 | 189 |
| Panic Disorder | 0.00 | 19 |
| Agoraphobia without Panic Disorder | 0.00 | 25 |
| Social Phobia | 12.11 | 29 |
| Specific Phobia | 0.21 | 202 |
| Generalised Anxiety Disorder | 13.37 | 60 |
| Post Traumatic Stress Disorder | 9.48 | 72 |
| Any anxiety disorder | 4.97 | 334 |
| Any disorder | 6.12 | 455 |

Table 36 - 12 month prevalence of ICD disorders by 12 month prescriptive treatment received

| Diagnosis | Treated | SE |
|------------------------------------|-------------|-------------|
| Severe Depressive Episode | 9.11 | 4.59 |
| Moderate Depressive Episode | 9.29 | 7.87 |
| Mild Depressive Episode | 3.29 | 3.34 |
| Mania | 50.94 | 26.90 |
| Hypomania | 46.73 | 25.66 |
| Dysthymia | 5.86 | 5.90 |
| Any affective disorder | 8.05 | 3.42 |
| Panic Disorder | 5.56 | 4.81 |
| Agoraphobia without Panic Disorder | 3.87 | 3.84 |
| Social Phobia | 3.60 | 2.13 |
| Specific Phobia | 16.81 | 7.78 |
| Generalised Anxiety Disorder | 8.60 | 5.68 |
| Post Traumatic Stress Disorder | 6.04 | 3.05 |
| Any anxiety disorder | 4.42 | 1.44 |
| Any substance disorder | 47.49 | 27.93 |
| Any disorder | 5.48 | 1.62 |

Table 36 - The overall prescriptive treatment is very low (5.48%). However, *mania* and *hypomania* and *substance abuse disorders* show higher figures, respectively 50.94%, 46.73% and 47%.

9.2. Prevalence of medical treatment (lifetime)

Table 37 - Lifetime prevalence of ICD disorders by medical treatment received ever (row totals)

| Diagnosis | Treatment | Number |
|------------------------------------|------------------|---------------|
| Severe Depressive episode | 12.51 | 160 |
| Moderate Depressive episode | 10.63 | 124 |
| Mild Depressive episode | 2.96 | 65 |
| Dysthymia | 4.28 | 28 |
| Mania | 38.23 | 10 |
| Hypomania | 17.57 | 14 |
| Any affective disorder | 10.43 | 365 |
| Panic Disorder | 0.37 | 23 |
| Agoraphobia without Panic Disorder | 14.54 | 35 |
| Social Phobia | 10.45 | 41 |
| Specific Phobia | 0.96 | 245 |
| Generalised Anxiety Disorder | 13.99 | 81 |
| Post Traumatic Stress Disorder | 4.18 | 176 |
| Any anxiety disorder | 6.81 | 476 |
| Any disorder | 9.98 | 701 |

Table 37 - This presents the current medical treatment received during the lifetime prevalence of a mental disorder. We observed a low rate of treatment received for all disorders (9.98%). However, *mania* shows higher figures than other disorders with 38.23%.

10. Additional Information

10.1. Suicidal ideas

Among those with any mental disorder, 68.39% expressed suicidal ideas (**Table 38**). The prevalence was higher among females (75.80%) as compared to males (58.19%). This was applicable to all diagnostic categories, except in *any substance use disorder* which males had higher frequency of suicidal ideas (13.11% vs. 0.35%).

Table 38 – Proportion of people reporting suicidal ideas in men and women with lifetime prevalence of ICD disorders (columns total)

| Diagnosis | Suicidal ideas reported | | | | Overall | SE |
|------------------------------------|-------------------------|-------------|-------------------|-------------|---------------|-------------|
| | Males (N=57) | SE | Females (N=88) | SE | | |
| Severe Depressive Episode | 19.12 | 7.99 | 34.2 | 8.78 | 27.85* | 6.27 |
| Moderate Depressive Episode | 10.66 | 4.65 | 6.15 | 2.28 | 8.05* | 2.38 |
| Mild Depressive Episode | 1.80 | 1.63 | 1.62 | 1.10 | 1.70 | 0.93 |
| Mania | 0.00 | 0.00 | 2.31 | 1.44 | 1.34* | 0.83 |
| Hypomania | 0.00 | 0.00 | 5.52 | 2.98 | 3.19* | 1.73 |
| Dysthymia | 9.90 | 7.41 | 9.92 | 5.63 | 9.91* | 4.51 |
| Any affective disorder | 31.58 | 8.74 | 47.59 | 8.57 | 40.85* | 6.33 |
| Agoraphobia without Panic Disorder | 2.31 | 2.30 | 17.02 | 7.59 | 10.83* | 4.71 |
| Social Phobia | 2.31 | 2.30 | 13.97 | 6.20 | 9.06* | 3.83 |
| Specific Phobia | 12.71 | 7.74 | 31.76 | 8.43 | 23.74* | 6.01 |
| Generalised Anxiety Disorder | 6.47 | 3.42 | 8.40 | 2.78 | 7.59* | 2.15 |
| Post Traumatic Stress Disorder | 23.71 | 8.38 | 16.20 | 6.10 | 19.37* | 5.03 |
| Obsessive Compulsive Disorder | 9.90 | 7.41 | 17.13 | 7.38 | 14.09* | 5.31 |
| Any anxiety disorder | 48.59 | 9.75 | 59.93 | 8.09 | 55.15* | 6.23 |
| Any substance use disorder | 13.11 | 7.73 | 0.35 | 0.35 | 5.72* | 3.45 |
| Any disorder | 58.19 | 9.23 | 75.80 | 6.63 | 68.39* | 5.53 |

*p<0.05

Table 38 - We observe significant difference by lifetime suicidal ideas. All diagnostic categories show significant differences except for *mild depressive episode*. Men show higher values for *substance abuse*, *post traumatic disorders* and *moderate depressive episode*, while women show higher values for the other categories. The category *any disorder* is also higher in women. The overall value for suicidal ideas in the population with mental disorders is extremely high (68.39).

| Table 39 - Prevalence of suicidal thoughts-column totals (%) | | | |
|---|------------------------------|----------|----------|
| | | Lifetime | 12 month |
| Sex | Female | 3.40 | 0.75 |
| | Male | 2.44 | 0.98 |
| Residence | Rural | 1.63 | 0.49 |
| | Urban | 3.64 | 1.08 |
| Region | Kurdistan | 3.55 | 0.86 |
| | South/Centre | 2.79 | 0.87 |
| Income Quartile | Q1(lowest) | 2.41 | 0.86 |
| | Q2 | 3.38 | 0.95 |
| | Q3 | 2.80 | 1.84 |
| | Q4(highest) | 3.18 | 0.49 |
| Marital Status | Married | 2.64 | 0.83 |
| | Separated /Divorced /Widowed | 5.87 | 1.65 |
| | Never married | 2.78 | 0.75 |
| Education | 0 years | 2.76 | 0.95 |
| | 1-6 years | 4.68 | 1.69 |
| | 7-12 years | 2.45 | 0.23 |
| | 12+ years | 0.45 | 0.19 |
| Total | | 2.92 | 0.87 |

Table 39 - The lifetime prevalence of suicidal ideas among all the survey respondents is higher for women than for men (3.40% versus 2.44%), while 12 month prevalence is higher for men (0.98% versus 0.75%). Suicidal ideas values are higher in the urban compared to the rural population and in the Kurdistan region in comparison to the south/centre region. No significant relation is observed between suicide, income, and education. Suicidal ideas are more prevalent among the separated/divorced/widowed group.

10.2. Family burden and mental health disorders

Table 40 -Proportion of respondents experiencing significant family burden in men and women with 30 day prevalence of ICD disorders

| Diagnosis | Significant burden* | | | | Overall | SE |
|------------------------------------|---------------------|------|---------|------|---------|------|
| | Males | SE | Females | SE | | |
| Severe Depressive Episode | 4.87 | 2.60 | 2.37 | 1.15 | 3.31 | 1.21 |
| Dysthymia | 0.00 | 0.00 | 2.08 | 1.58 | 1.30 | 0.99 |
| Any affective disorder | 4.87 | 2.60 | 4.45 | 1.98 | 4.61 | 1.58 |
| Panic Disorder | 1.76 | 1.76 | 1.74 | 1.32 | 1.75 | 1.06 |
| Agoraphobia without Panic Disorder | 1.96 | 1.78 | 4.88 | 4.71 | 3.79 | 3.04 |
| Social Phobia | 0.00 | 0.00 | 6.49 | 4.80 | 4.05 | 3.05 |
| Specific Phobia | 3.09 | 2.47 | 16.20 | 6.58 | 11.28 | 4.34 |
| Generalised Anxiety Disorder | 1.76 | 1.76 | 7.59 | 4.87 | 5.40 | 3.15 |
| Post Traumatic Stress Disorder | 2.81 | 2.04 | 5.00 | 4.71 | 4.18 | 3.06 |
| Obsessive Compulsive Disorder | 2.09 | 1.30 | 5.13 | 4.71 | 3.99 | 3.01 |
| Any anxiety disorder | 6.73 | 3.33 | 25.05 | 7.59 | 18.18 | 5.14 |
| Any disorder | 9.85 | 3.91 | 27.93 | 7.64 | 21.14 | 5.22 |
| Any core disorder | 9.01 | 3.81 | 25.72 | 7.60 | 19.45 | 5.17 |
| | 54 | | 91 | | 145 | |

*significant burden= categories "a lot" and "extremely"

Table 40 - This shows that of those respondents who had a current mental disorder, about one fifths felt that their illness was affecting their families significantly. This proportion was higher for those with anxiety disorders as compared to those with affective disorders. Women report more burden than men as reflected by the categories *any anxiety disorders* (men 6.73 versus women 25.05), *any disorders* (men 9.85 versus women 27.93) and *any core disorders* (men 9.01 versus women 25.72).

IV. Discussion

There is growing recognition among professionals and policy makers of the importance of mental health and mental disorders as a public health priority (WHR, 2001, Chisholm et al, 2007, Saraceno et al, 2007). Mental disorders as a whole make up a high proportion of the disease burden throughout the world (WHR, 2001). There are effective interventions to address the majority of mental disorders (Chisholm et al, 2007). One of the reasons for the growing recognition of the public health importance of mental disorders is the availability of prevalence rates in the general population (Kessler, 2001). However, most epidemiological studies in the field of psychiatry or psychology have been undertaken in industrialised countries. In the Arab world, these studies have mostly focused on specific mental disorders or particular population groups such as those living in conflict situations (Okasha and Karam, 1998). The only nationwide general population survey of mental disorders in an Arab country has been done in Lebanon (Karam et al, 2006, 2008).

There is an urgent need for accurate information regarding the prevalence and patterns related to the distribution of mental disorders in the Arab world, especially in countries facing humanitarian situations. Iraq, as with many other countries, does not have recent epidemiological data, despite the fact that the population have experienced wars, insecurity, sanctions and ongoing conflict situations over three decades.

The IMHS is significant for a large number of interdependent reasons. The situation in Iraq is unique considering the duration of unstable and stressful conditions (eight years of war with Iran, invasion of Kuwait, Gulf war in 1991, 13 years of economic sanctions, and invasion and regime change in 2003 followed by years of extreme insecurity) which have involved several generations of the population. The entire country is, as a result, in an extremely complex psychosocial situation and as a direct consequence not a single model can claim to understand the situation and give clear indications for the future. The clues that will ultimately lead to a better understanding must come from the core of Iraq itself. It is in this specific context that the IMHS was carefully considered and planned. The survey considered an internationally accepted state of the art methodology for case identification and classification (Kessler and Ustun, 2004) that would ultimately lead to the availability of data related to lifetime prevalence, 12-month prevalence and 30-day prevalence of mental disorders. The IMHS also considered the experience of trauma in the population and its relationship to the occurrence of mental disorders and the availability of treatment for people with mental disorders.

As with every survey, the IMHS has both limitations and strengths. The major strengths are :

- 1) The nationwide coverage of the survey;
- 2) The completion of the survey during a period of ongoing conflict, which provides an understanding of the impact of the conflict situation on the mental health of the population;
- 3) The simultaneous survey of physical and mental health problems, which allows for understanding of the relationship between physical and mental health conditions;
- 4) An avoidance of the impact of the stigma relating to mental disorders, which would have hampered the survey if the survey had been a stand-alone mental health survey;
- 5) The use of internationally accepted methodology with extensive quality controls, which resulted in the collection of quality data, and allows comparison of the data with that from other countries and population groups;
- 6) Building the capacity of Iraqi professionals in conducting research and surveys, since this survey ensured the full engagement of Iraqi team in every single step.
- 7) The use of a diagnostic instrument and not a screening instrument.

It is also important to consider some of the limitations of the IMHS :

- 1) For logistical reasons, the Kurdish version of the CIDI was not back translated ;
- 2) The data collection occurred at different times of year in different regions, due to the security situation;
- 3) The non-inclusion of schizophrenia, somatisation disorder, cognitive disorders, personality disorders, which are important for planning of services in the Iraq context;
- 4) The survey covered only adults, while children and adolescents were not included;
- 5) External validation of the diagnosis of identified cases, through an independent psychiatrist, though considered, could not be undertaken for logistical reasons ;
- 6) The security situation introduced many constraints to the survey process;
- 7) The clustering of widowed, divorced and separated people was done to ensure enough responses in each cell for statistical purposes.

The prevalence rates reported in IMHS need to be considered in the light of previous investigations from Lebanon, Nigeria and China who have used the same World Mental Health survey methodology (Karam et al, 2006, Gureje et al, 2006, Shen et al 2006). As previously observed, the occurrence of mental disorders in the community might have been underestimated. Mental illness is still highly stigmatised and symptoms of such illness might be embarrassing and likely to be denied. (Gureje et al, 2006). Declarations of anonymity and confidentiality might also have less persuasive power in motivating complete reporting of the symptoms (Karam et al, 2006, Gureje et al, 2006). Also, CIDI 3.0. has not been validated

clinically in Iraq and it is possible that the clinical thresholds vary in the Iraqi population and in the respondents.

There are a number of cultural factors that are important in understanding the prevalence and pattern of mental disorders in the population of Iraq. Expert psychiatrists working in Iraq have pointed out that the presentation of distress by the population is more likely to be more in the form of somatic symptoms rather than psychological symptoms. In addition, there are other cultural differences that alter the way distress is expressed. Some of these are:

- The high stigma associated with mental disorders in the population of Iraq. This could limit the acknowledgement of symptoms of mental disorders and their reporting to interviewers by the respondents;
- The long conflict period could have contributed to the development of acceptance of some of the conflict experiences as "normal" for the population (considering their personal abnormal reactions as "normal" reactions since everyone in the population is experiencing the same);
- The development of resilience in the population due to repeated exposure to conflict and adverse events;
- The role of available social support from family and the community, and the protective role of religion.

Shoeb et al (2007), based on their experience of developing an Iraqi version of the Harvard Trauma Questionnaire among the Iraqi exiles in USA, have pointed out that for Iraqis (i) religious faith, a sense of commitment to a political cause, and psychological preparation for torture appeared to provide protection against adverse psychological consequences; (ii) in the posttraumatic context, loss of social networks and separation from family members were considered important factors that seemed to perpetuate psychiatric symptoms, particularly depression and PTSD; (iii) social factors in exile, such as lack of language proficiency, social and economic adversity, fear of repatriation, and situation in the home country, appeared to be influential in preventing recovery from PTSD and other forms of psychosocial distress and (iv) there is distinct somatisation of distress.

The above factors need to be borne in mind when understanding the findings of the survey and in using the findings for the planning of the mental health interventions.

Mental Distress

As part of the Iraq Family Health Survey published in 2007 (www.who.emro/ifhs/int), a Self Reporting Questionnaire (SRQ 20) was administered to adult respondents. In each household, one adult (aged 18 or over, male or female) was randomly selected to complete a self-reporting questionnaire (SRQ 20) to assess their mental health status. Respondents were asked 20 questions on specific health events in the last 30 days.

The findings show that over half of the respondents had felt nervous, tense or worried in the previous 30 days. A large proportion of the respondents also indicated that they are easily tired, often have headaches and also feel tired all the time. 3.5% of respondents stated that they had thought of ending their own life, while 7.8% had thought that they were worthless persons at some point in the month before the survey.

Based on an earlier study in Iraq, using the SRQ 20 in the general population, the cut-off point of 7 was used (Mufeed et al 2001, unpublished). Overall, one in three respondents had a SRQ 20 score of 7 or more. This population can be considered as having significant psychological distress and as potential psychiatric cases. There is a gender difference with regard to the SRQ 20 score, with females scoring higher than males. 40.4% of females scored 7 or more on the SRQ 20, compared to 30.4% of males. Score was also higher as age group increased. About half (49.9%) of respondents 50 years and older age individuals are in this category, compared with 35.1% of 30-49 year olds and 27.3% of 18-29 year olds. This finding of significant psychological distress is in line with the findings from Afghanistan (Cardozo et al, 2004, Scholte et al, 2004, Seino, 2008) Sudan, (Kim et al, 2007) and Palestine (Thabet and Vostanis, 2001).

Mental Disorders

All the reports of the World Mental Health Survey have presented their results using DSM-IV classification to classify mental disorders. The results of the IMHS analysis are presented with results from three other countries; Lebanon, China and Nigeria. Of these, the Lebanese survey comes closest to that of IMHS although it was implemented post-conflict while IMHS was carried out during a conflict situation. China and Nigeria were neither in a period of present or post conflict.

The 12-month prevalence rates in the four countries reveal interesting findings. Overall the prevalence rate of most of the disorders in Iraq is similar to that of Lebanon, except for the *substance disorders, dysthymia, PTSD, and specific phobias*. If the high prevalence rates of these are put to one side, the findings of Iraq and Lebanon are very similar.. The Iraqi population has higher prevalence rates of *panic disorder, and generalized anxiety disorder*. This pattern of prevalence of mental disorders reflects both the impact of trauma and the experience of increased autonomic arousal manifesting as physical symptoms. As noted earlier, the preferred somatic expression of distress in Iraqi population could facilitate the expression of the physical symptoms of anxiety disorders rather than the psychological symptoms.

Table 41 – 12 month Prevalence of DSM –IV mental disorders in different countries

| Country | Iraq | Lebanon | China | Nigeria |
|-------------------------------|-------------|-------------|------------|-------------|
| Diagnosis | | | | |
| Affective Disorders | | | | |
| Major Depressive Disorder | 4.0 | 4.9 | 2.0 | 1.0 |
| Dysthymia | 0.2 | 0.8 | 0.8 | 0.8 |
| Bipolar I and II | 0.2 | 1.5 | 0.1 | 0.0 |
| Any affective disorder | 4.1 | 6.6 | 2.2 | 1.3 |
| Anxiety Disorders | | | | |
| Panic Disorder | 1.0 | 0.2 | 0.2 | 0.1 |
| Agoraphobia without Panic | 0.5 | 0.3 | 0.0 | 0.2 |
| Social Phobia | 0.7 | 1.1 | 0.2 | 0.3 |
| Specific Phobias | 3.8 | 8.2 | 1.9 | 3.5 |
| Generalized Anxiety Disorder | 2.3 | 1.3 | 0.8 | 0.0 |
| Posttraumatic Stress Disorder | 1.1 | 2.0 | 0.2 | 0.0 |
| Any anxiety disorder | 10.4 | 11.2 | 2.7 | 11.2 |
| Substance Disorders | | | | |
| Alcohol Abuse | 0.1 | 1.2 | 1.6 | 0.5 |
| Alcohol Dependence | 0.0 | 0.3 | 0.6 | 0.1 |
| Drug Abuse | 0.1 | 0.2 | 0.1 | 0.2 |
| Drug Dependence | 0.0 | 0.1 | 0.0 | 0.0 |
| Any substance disorder | 0.2 | 1.3 | 1.6 | 0.8 |
| Any Disorder | 13.6 | 17.0 | 7.0 | 5.8 |

Both Iraq and Lebanon have mental disorder prevalence rates higher than China (over two fold) and Nigeria (more than two fold). This can be largely attributed to the conflict situation in the countries at that time.

In recent years, there has been considerable attention paid to the study of exposure to war as a risk factor for mental disorders (Porter and Haslam, 2005, Srinivasa Murthy, 2007, IASC, 2007, Murphy and Lloyd, 2007, Karam et al, 2006, 2008, Benedek and Ursano, 2008). There are reports of high rates of mental disorders in general and PTSD in particular in some reports (Cardozo et al, 2004, MHAT-III, 2006, Abhari, 2003, Somasundaram and Jamunanatha, 2002, Kim et al, 2007) and low rates of mental disorders in other studies (Murphy and Lloyd, 2007).

There is also evidence from a review of the literature that psychosocial factors associated with depression and /or stress resilience include positive emotions and optimism, humour, cognitive flexibility, cognitive explanatory style and reappraisal, acceptance,

religion/spirituality, altruism, social support, role models, coping style, exercise, capacity to recover from negative events and stress inoculation (Southwick et al, 2005).

There are also specific factors that play a protective role in Iraq, as noted in an earlier section of the discussion. However, there is need for qualitative studies to understand these factors in greater detail. Such studies will have value in not only for planning of services in Iraq but also in understanding the phenomenon of resiliency in general

The differences in the prevalence rates of mental disorders between the south/ centre and the Kurdistan region call for comment. All the three prevalence rates, namely lifetime, 12 month, and 30 day prevalence rates are higher in the Kurdistan region as compared to the south/centre. Anxiety disorders are higher in the Kurdistan region. This is in accordance with studies showing that adults in the Kurdistan region have experienced more longstanding trauma during their childhood (Ahmad A 1992, & Ahmad et al 1998).

The distribution of the specific mental disorders in the survey reveals interesting patterns. A significant observation is the high prevalence of all types of anxiety disorders in Iraq, except PTSD. Specifically the rates of *generalized anxiety disorder*, *specific phobia* and *obsessive compulsive disorder* are of great interest. This indicates that, contrary to often expressed view that PTSD is the main expression of trauma exposure, there are other ways of expressing distress.

The other observation to be made is in relation to substance abuse, which is vastly different across the countries. This could be largely attributed to the differing cultural and religious norms across countries. There could be real differences in the rates, or there could have been systematic under-reporting in Iraq because of the non-acceptability of use of alcohol and substances. It is well recognized that in Iraq the stigma attached to substance use is greater than that for mental disorders, as it is considered a deviant behaviour and not an illness. This could have influenced the reporting of use and abuse during the interviews. The other factor for the low prevalence could be the protective role of cultural and religious practices that preclude use of these substances. In view of the growing anecdotal and clinical reports of increasing abuse of drugs in the population, there is a need to undertake rapid assessment surveys with substance use as the focus of the study.

The low prevalence rate of PTSD, both at 12 months (1.63%), and life time (3.59%) is different from that reported in other conflict situations. This is all the more significant in view of the rate of exposure to traumatic events in the Iraqi population. We need to recognize that PTSD does not represent the sole mental consequence of trauma in Iraq. This result highlights the restrictions of a clinical approach based on syndromes rather than symptoms.

Based on the above findings, it is reasonable to conclude that the ongoing conflict situation has placed the population under stress and that about one third of the population have "psychological distress" and one in nine individuals have a diagnosable mental disorder.

Relationship of Mental Disorders and Socio-Demographic Variables

Mental disorders are reported to be differentially distributed across groups of population with different socio-demographic variables such as age, education, income and marital status. In the current study, both for psychological distress and the prevalence rates of mental disorders, the older age group (for example 65 years and above) reports higher rates. These include *any affective disorder*, *any anxiety disorder* and specifically *PTSD* both in males and females. This higher vulnerability to mental distress and mental disorders could be related to greater years of exposure to the insecure situation and/or decreased coping capacities due to old age.

The higher rate of mental disorders in women is seen in 12-month, lifetime and the 30-day prevalence rates. All the mental disorders except *any substance use* disorder are higher in prevalence in females. The reasons for the higher rates are related both to the insecurity prevailing in Iraq, as well as socio-cultural factors that place females at a disadvantage. As noted earlier, the SRQ 20 scores of psychological distress are also higher in women. In the IFHS report, for the 15-49 years age group of women there is significant domestic violence in the physical, sexual and psychological dimensions. 83.1% of women report at least one form of marital control. Highly prevalent controlling behaviours are a husband being jealous or angry (51.0%), a husband insisting on knowing where the woman is at all times (63.3%) and insisting on the woman asking his permission to seek health care (66.9%). Regional variations are noted, with lower reported controlling behaviour in the Kurdistan region compared to the south/centre. Marital control over knowing the whereabouts of the woman, allowing them to seek health care and levels of jealousy are much lower in the Kurdistan region (36.0%, 39.9% and 20.4% respectively) than in the South/Centre (67.2%, 70.8% and 55.3% respectively). Conversely, women in the Kurdistan region experience higher spousal

control than those in the South/Centre region regarding seeing family and trust with money. Younger women are the most likely to be restricted by forms of marital control.

Among those who were separated, widowed and divorced there were significantly higher prevalence rates of mental disorders as compared to those never married or were currently married. This was seen both for any affective and anxiety disorders. This finding is in line with that from Nigeria (Gureje et al, 2007) and Ukraine (Bromet et al, 2005). Studies from Lebanon (Karam et al, 2004) and China (Shen et al, 2004) reported higher prevalence rates of mental disorder among those who were never married. The higher prevalence rates among the separated, widowed, divorced group in Iraq are understandable in view of the social difficulties of this group, especially in women. From the IFHS, it is known that about 9% of households had a family member who is a widows consists of widows. (WHO-Iraq-Iraq Family Health Survey, 2007).

The finding of differential rates of mental disorders among the different income groups is not seen in the Iraq survey. This could be attributed to the high level of insecurity in Iraq affecting all groups of population in terms of the disruption of their day to day lives.

Trauma Exposure and Mental Disorders:

The finding of a strong association between trauma and psychiatric disorders is in line with the findings from Lebanon (Karam et al, 2004, 2008, Benedek and Ursano, 2008) and Afghanistan (Cardozo et al, 2004, Scholte et al, 2004). Men are more exposed to traumatic events than women. This could be interpreted as males being more risk-taking than females and therefore having greater exposure to dangerous situations.

Another finding is that exposure to traumatic events is more frequent among those who meet the criteria for a mental disorder, thereby showing a dose response to trauma, in line with the literature. In all studies, this is the single most consistent finding regarding the relationship between trauma and the prevalence of mental disorders. Of the many studies on this subject, the recent re-analysis of the Vietnam veterans study is important. Dohrenwend et al (2006) used military records to construct a new exposure measure and to cross-check exposure reports in diagnoses of 260 Vietnam veterans. They found little evidence of falsification, an even stronger dose-response relationship, and psychological costs that were lower than

previously estimated but still substantial. A study from Lebanon (Karam et al, 2004, 2008) also supports this finding.

Although the population surveyed was exposed to at least one traumatic event, the majority do not report any mental disorder. As noted earlier, this could be a reflection of the resilience of the population and greater capacity to handle traumatic events. Factors contributing to the resilience are the cultural practices of Iraq in which relatives and friends reach out to the traumatised individual and offer practical help; there is greater opportunity for expression of distress and anger and there are many rituals associated with events like death that canalise the distress in a socially acceptable manner. In addition, people consider events such as losses as 'divine fate'. There is a need for in-depth studies to understand the underlying factors of resiliency.

Impact of Mental Disorders

The IMHS considered also data-relating to the prevalence rates and the impact of the mental disorders in terms of disability, the presence of suicidal ideas and family burden.

Disability of mental disorders

International studies have shown that several mental disorders are among the most disabling diseases (WHO, 2001, Moussavi et al, 2007). In addition, some mental disorders come in the top ten conditions in terms of the magnitude of the burden of health problems.

In the IMHS, scores of disability, as measured using the WHO-DAS, in those with a mental disorder were higher than the noncases (12.17 versus 3.80). Affective disorders were associated with greater disability as compared to anxiety disorders. When compared for physical conditions like arthritis, high blood pressure, diabetes, asthma and heart disease, mental disorders scored significantly higher. It is interesting to note that persons with physical disorders and associated mental disorders reported higher levels of disability.

The higher levels of disability among the persons with mental disorders could be due to lack of awareness about the need for treatment, delay in seeking treatment, inadequate treatment and a possible lack of integration into the society due to stigma and discrimination.

Suicidal Ideas in the Population

The finding with regard to suicidal ideas in women in Iraq is line with the findings from Darfur, Sudan (Kim et al, 2007). There is a higher prevalence of suicidal ideas in females from urban areas in Iraq. Females who were separated, widowed and divorced have significantly higher reported suicidal ideas. Suicidal thoughts were higher in the Kurdistan region than in the South/Centre regions.

This finding should be set alongside the observation of higher suicidal ideas among people having a mental disorder. Indeed the survey indicates that about 70% of the people with a diagnosis of mental disorder expressed suicidal ideas.

The finding of the UNICEF - UNFPA report on the effects of conflict on the health and well-being of women and girls in Darfur, (UNICEF-UNFPA, 2005) also reported a high rate of psychosocial disturbances and increased rates of suicide and suicidal ideations.

Family Burden

Throughout recent history, mental illnesses have caused problems in Iraqi society. Health services worldwide consider the treatment and rehabilitation of clients with mental illnesses as a heavy burden on their economic and social resources. The burden on family is of an emotional and economic nature, a strain that is often experienced when a member of ones family is diagnosed with a mental disorder. Family burden is also regarded as a complex problem that seriously affects the treatment of chronic mental patients (Howard et al, 1982).

IMHS found that one fifth of mentally ill patient currently diagnosed with mental illnesses felt that their illness was a significant burden on their families. This proportion was higher for those with anxiety disorders as compared to those with affective disorders. Most of the studies carried out on family members demonstrate that mental illnesses can have a catastrophic impact on the family, subjecting their members to severe burden and stress. Certain behaviours of mentally ill members such as compulsive behavior, agitation, etc, have been proven to be the most distressing to the family. Further research has focused on the severity of mental illness and stressed the importance of social support (Dimitra A, 1995).

Medical Treatment used by persons with Mental Disorders

One of the important advances of the last few decades is the availability of a wide range of interventions for the treatment of mental disorders (WHO, 2001, Lancet, 2007).

In this survey, both for the 12-month prevalence and lifetime prevalence of mental disorders, the reported taking of any form of treatment is very low, 6.12 % and 9.98%, and those receiving a prescriptive treatment are even fewer (5.48%). This finding is a matter of great concern. It is possible that majority of the sick persons do not acknowledge their need for treatment and thus do not receive the care needed. Alternatively and additionally, the limited availability of general health services and in particular mental health services, especially in small cities and towns where there are no psychiatrists and psychiatric facilities for care, could be limiting the use of the services.

Similar low levels of treatment utilisation have been reported in the studies from Lebanon, Nigeria and China. Among all respondents with at least one mental disorder, only 3.4% sought treatment within 12 months of the interview in China (Shen et al, 2006), in Lebanon 10.9% (Karam et al, 2004), while in Nigeria it was only 1-2% (Gureje et al, 2006). Similarly low rates of utilisation of services have been reported from other countries (Saraceno, et al 2007, Wang et al, 2007). It has been noted that rates of treatment utilisation are lower in the developing countries, as compared to developed countries.

The main reasons for this 'treatment gap' relate to limited awareness in the general population and among the health professionals, a high emphasis on institution-based mental health care, overemphasis on care by specialists, inappropriate legislation relating to mentally ill individuals, stigma about mental disorders and the limited funding for mental health services. Another reason for the low level of prescriptive treatment is the fact that many of patients can not tolerate the side effects of psychoactive drugs. In Iraq, in addition to the above factors, common to many developing countries, other barriers to care have been sanctions during the 1990s, the breakdown of the health system, the security situation, shortages of medicines and equipment, and large scale migration of health professionals, especially physicians and specialists, given they were subjected to threats, kidnapping and killings by armed parties and militias.

Conclusions

The results of the World Mental Health Survey in Iraq (with an overall response rate of 95.2%) indicate an overall lifetime prevalence of mental disorders of 16.56%, and an overall 12-month prevalence of 11.09%.

The report shows specific patterns that need to be highlighted. Anxiety disorders of a lifetime, 12-month or 30-day prevalence are clearly dominant, specific phobia being the most represented disorder. For the affective disorders, depression (mild, moderate and severe) and dysthymia are the main disorders in every prevalence condition.

The reports replicated expected widely documented results such as women being more affected than men (gender effect), widowed/separated/divorced people having higher disorder prevalence than married people; the unemployed/retired showing higher prevalence than other categories.

The report also shows the commonly found inverse relation between age and mental disorders. In men the lifetime prevalence for any disorders is 12.74% (18-34 years) 14.12% (35-49 years), 14.87% (50-64 years) and 17.61 (65+), and in women 16.33% (18-34 years), 21.24% (35-49), 24.90% (50-64) and 25.03% (65+). Results indicate that access to treatment is low; as treatment received for any disorders (12-month prevalence) is reported to be 6.12%. This raises particular concern as the overall lifetime exposure to traumatic events is 56.02%.

Together these results raise questions that should ultimately lead to further research and considerations. First we observe that, even if PTSD remains present, other disorders are more dominant, in particular specific phobias and major depressive disorders. This effect is also observed in recent studies from other regions (e.g. Kashdan et al, 2008). As the authors mention, although PTSD is important in understanding reactions and recovery from war, other processes may be equally disruptive. Indeed even if PTSD remains the most commonly researched anxiety disorder (Boschen, 2008) that does not mean that it is the most present in humanitarian situations.

A second observation is the low prevalence of mental health disorders despite massive exposure to traumatic events. Once again this is in accordance with the literature. Rousseau et al (2003) investigated the social adjustment to trauma and highlighted that based on studies reporting even long term persistence of mental disorders (more than 10 years); researchers (e.g. Sack et al, 1997) have found rather good psychological adjustment in spite of the symptoms observed. This low prevalence associated with rather high and long lasting exposure to trauma has been described in the literature since the late nineties as the “mystery of resiliency” (e.g. Sack et al, 1997) and provides insights into the complex relationship between exposure and response to traumatic events (Rousseau et al, 2003).

Another reason that might account for the low prevalence rate is that the figures could have been influenced by the migration of the population. An estimated 1.6 million Iraqis fled to neighbouring states, mostly to Syria and Jordan, while the IDP displacement breakdown represents 2,480,981 individuals. These figures are based on estimates by Iraq’s Ministry of Displacement and Migration (MoDM), the Kurdistan Regional Government (KRG) and partner organizations, as reflected in the IDP Working Group update of 19 September 2008. However, no one can argue that the remaining population is less traumatised than the internally/externally displaced population as both have been affected by years of trauma exposure and still face extreme stressors on a daily basis.

The last observation relates to the poor accessibility and/or availability of treatments for people with mental health disorders (less than 7% for 12 month prevalence). This extremely low level of care availability/accessibility is a major concern for the future. The lack of treatment facilities also contributes to understand the need for people to adapt their behaviours and develop resiliency as a necessity for survival. Such adaptations of people facing traumatic events in the absence of mental health support is at a high psychological cost, as confirmed, for example, by the high rate of suicidal ideas amongst individuals suffering from mental disorder (about 70%).

Therefore the low prevalence of mental disorders could also be understood as a very costly psychological adaptation of the population (resiliency) due to the massive exposure to trauma combined with low access to treatment. Familial, religious and cultural factor should be investigated to better understand this capacity of the population to develop such a high capacity of resiliency. However, this should not minimize the individual and collective

suffering provoked by organised violence (Howard and Hodes, 2000). We now have to consider the impact of earlier and repetitive experience to trauma on the later development of individuals, and moreover, even if resiliency seems to be widespread, what price does every individual pay for her/his resilience?

It is beyond the scope of the IMHS to investigate these issues, but further research is needed to address the results of this report. In the next section we make suggestions on ways in which policy makers could further consider the results of the World Mental Health Survey Iraq and make decisions regarding the burden of mental health disorders and the unmet need for treatment. This is particularly important as experience shows that even after decades of peace there are residual associations between war-related trauma and mental disorders (Karam et al, 2006).

Visions for the Future

This survey is a critical step in the understanding of the mental health situation in Iraq. Furthermore it gives important information regarding the interventions that need to be considered for the future. The data presented in this survey should contribute to the ongoing efforts of the Ministry of Health (MoH), the Ministry of Planning and Development Cooperation (MoP), the Ministry of Health (MoHK) and the Ministry of Planning (MoPK) in the Kurdistan Region, as well as other ministries, non-governmental organizations, and international agencies to formulate effective programmes and policies for the benefit of the health of Iraqi families. The results of the survey and its associated implications can be further developed through a comprehensive collaboration between the various ministries involved, UN agencies, as well as international and national NGOs which also have a crucial role in psychosocial support.

After a careful analysis of the results it seems obvious that the recommendations of the World Health Report 2001 still provide essential indications for mental health systems policy. These include: 1) Providing care in the community; 2) Providing care in PHC; 3) Making psychotropic drugs available; 4) Educating the public; 5) Involving communities, families and consumers; 6) Establishing national policies, programmes and legislation; 7) Developing human resources; 8) Making links with other sectors; 9) Monitoring community mental health and 10) Supporting more research.

The IMHS results should contribute to the revision of Iraq's National Development Strategy and the five year plan of action. However, considering the specific knowledge acquired through the survey the revision should consider the following issues:

Closing the treatment gap through a comprehensive primary mental health care system and the development of skills and competencies

The survey shows that individuals with mental disorders have a significantly low rate of treatment access (less than 7% for the 12 month prevalence); therefore efforts should be reinforced in order to increase acceptability, availability, accessibility and quality of mental health care and psychosocial support. This can be achieved given the central function played by comprehensive primary health care in the country's health system. In this regard, closing

the treatment gap will also mean reinforcing health practitioners' education and supervision in order to effectively assess, diagnose, treat and refer individuals with mental disorders.

Promoting a clinical approach to disorders based on symptoms rather than syndromes

The survey shows that post-traumatic stress disorder, long considered as the major disorder to result from exposure to trauma, is no longer the central figure in psychopathological expression. Indeed other disorders such as specific phobias, obsessive compulsive disorders, and generalised anxiety disorders are more dominant. This result highlights the complex emergence of other categories of disorders and raises the question of the clinical approach. Would an approach based on syndromes be really beneficial or should an approach based on symptoms be preferred? Considering the average length of trauma exposure (more than 20 years), the ever changing security issues, together with the complex pattern of affective and anxiety disorders highlighted in the survey and the actual health system structure inside the complexity of the humanitarian situation, an approach based on symptoms should be carefully considered and recommended. This would allow a more comprehensive mental care approach, not limited to classical western nosography but based on the various clinical situations observed on the field.

Developing comprehensive psychosocial measures for vulnerable populations

The survey shows that, on one hand, women have higher values than men for affective and anxiety disorders; younger women (18-34) and older women (50-65) being the most vulnerable. Men aged over 65 years show higher values than younger ones. On the other hand, individuals with mental disorders show a higher level of disability compared with people without disorders regardless if they fall into the affective or anxiety categories. Socio-demographic factors also have an influence on psychopathological expression. These results confirm that exposure to trauma impacts differently on the population, and that mental disorders are a major burden. These results lead to the conclusion that, to be effective, a comprehensive national mental health approach should carefully consider particular and specific measures for vulnerable individuals.

Considering substance abuse prevention as well as suicidal ideas in the population with mental disorders

The survey shows that, in parallel to the complex pattern of mental disorders, at least two additional psychopathological conditions are now emerging and should be carefully considered as they have a direct and immediate impact on the general public health. These two issues are respectively the use and abuse of substances, and suicidal ideas amongst people with mental disorders. Indeed, the study confirmed that substance abuse is present in the population interviewed, even though there are differences regarding men and women and urban or rural locations. Suicidal ideas are also of particular concern as they exist in almost 70% of individuals with mental disorders. In the current humanitarian context, knowing that alcohol and drug abuse management play a part in the prevention of suicide attempts, these results indicate that specific interventions targeting suicidal ideas and substance abuse should be further considered to prevent their respective impact on general public health.

Developing comprehensive research on resiliency and the long term implications of early and repetitive trauma exposure.

The surveys also raise essential questions, one of them being the capacity of the population to develop resiliency as a necessity for psychological and physical survival. Familial, religious and cultural factors should be carefully investigated in order to identify the underlying factors of the Iraqi resiliency. This would serve as a model for psychosocial support and also shed some lights on psychological adjustment in such extreme conditions. Another question to be investigated concerns the impact of early and repetitive traumatic experiences on later psychosocial development. Indeed, even if people develop various effective forms of resiliency, sooner or later they will have to pay the price for this adjustment, and the health system needs to be ready for it.

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Annex 1: Kish Tables

| <i>Selection Table A</i> | | | I |
|---------------------------------------|--|--------------------------------|---|
| If the Number of Eligible Persons is: | | Interview the Person Numbered: | |
| 1 | | | 1 |
| 2 | | | 1 |
| 3 | | | 1 |
| 4 | | | 1 |
| 5 | | | 1 |
| 6+ | | | 1 |

| <i>Selection Table B</i> | | | II |
|---------------------------------------|--|--------------------------------|----|
| If the Number of Eligible Persons is: | | Interview the Person Numbered: | |
| 1 | | | 1 |
| 2 | | | 1 |
| 3 | | | 1 |
| 4 | | | 1 |
| 5 | | | 1 |
| 6+ | | | 1 |

| <i>Selection Table C</i> | | | III |
|---------------------------------------|--|--------------------------------|-----|
| If the Number of Eligible Persons is: | | Interview the Person Numbered: | |
| 1 | | | 1 |
| 2 | | | 1 |
| 3 | | | 1 |
| 4 | | | 1 |
| 5 | | | 2 |
| 6+ | | | 2 |

| <i>Selection Table D</i> | | | IV |
|---------------------------------------|--|--------------------------------|----|
| If the Number of Eligible Persons is: | | Interview the Person Numbered: | |
| 1 | | | 1 |
| 2 | | | 1 |
| 3 | | | 1 |
| 4 | | | 1 |
| 5 | | | 2 |
| 6+ | | | 2 |

| <i>Selection Table E</i> | | | V |
|---------------------------------------|--|--------------------------------|---|
| If the Number of Eligible Persons is: | | Interview the Person Numbered: | |
| 1 | | | 1 |
| 2 | | | 1 |
| 3 | | | 2 |
| 4 | | | 2 |
| 5 | | | 3 |
| 6+ | | | 3 |

| <i>Selection Table F</i> | | | VI |
|--|--|---------------------------------------|----|
| If the Number of Eligible Persons is: | | Interview the Person Numbered: | |
| 1 | | | 1 |
| 2 | | | 1 |
| 3 | | | 2 |
| 4 | | | 2 |
| 5 | | | 3 |
| 6+ | | | 3 |

| <i>Selection Table G</i> | | | VII |
|--|--|---------------------------------------|-----|
| If the Number of Eligible Persons is: | | Interview the Person Numbered: | |
| 1 | | | 1 |
| 2 | | | 2 |
| 3 | | | 2 |
| 4 | | | 3 |
| 5 | | | 4 |
| 6+ | | | 4 |

| <i>Selection Table H</i> | | | VIII |
|--|--|---------------------------------------|------|
| If the Number of Eligible Persons is: | | Interview the Person Numbered: | |
| 1 | | | 1 |
| 2 | | | 2 |
| 3 | | | 2 |
| 4 | | | 3 |
| 5 | | | 4 |
| 6+ | | | 4 |

| <i>Selection Table I</i> | | | IX |
|--|--|---------------------------------------|----|
| If the Number of Eligible Persons is: | | Interview the Person Numbered: | |
| 1 | | | 1 |
| 2 | | | 2 |
| 3 | | | 3 |
| 4 | | | 3 |
| 5 | | | 3 |
| 6+ | | | 5 |

| <i>Selection Table J</i> | | | X |
|--|--|---------------------------------------|---|
| If the Number of Eligible Persons is: | | Interview the Person Numbered: | |
| 1 | | | 1 |
| 2 | | | 2 |
| 3 | | | 3 |
| 4 | | | 4 |
| 5 | | | 5 |
| 6+ | | | 5 |

| <i>Selection Table K</i> | | | XI |
|--|--|---------------------------------------|----------|
| If the Number of Eligible Persons is: | | Interview the Person Numbered: | |
| 1 | | | 1 |
| 2 | | | 2 |
| 3 | | | 3 |
| 4 | | | 4 |
| 5 | | | 5 |
| 6+ | | | 6 |

| <i>Selection Table L</i> | | | XII |
|--|--|---------------------------------------|----------|
| If the Number of Eligible Persons is: | | Interview the Person Numbered: | |
| 1 | | | 1 |
| 2 | | | 2 |
| 3 | | | 3 |
| 4 | | | 4 |
| 5 | | | 5 |
| 6+ | | | 6 |

Annex 2: Timetable

| Table 1.1: IFHS – IMHS Survey timetable, 2005-2007 | | |
|---|---|-------------------------------|
| Activity | Starting Date | Duration |
| Planning and preparation of the survey | June-September 2005 | 4 months |
| Development of the survey proposal | January 2006 | 2 weeks |
| Translation into Arabic and preparation of the draft questionnaire | February-March 2006 | 2 months |
| Reviewing and finalization of the questionnaire | April 2006 | 2 Weeks |
| Preparation of training material | April – May 2006 | 3 weeks |
| Training of Trainers | April – May 2006 | 3 Weeks |
| Pre test | May 2006 | 1 week |
| Updating the sample frame | June 2006 | 1 week |
| Mapping | June 2006 | 1 week |
| Listing and relisting | June 2006 | 2 weeks |
| Sample selection | June 2006 | 3 days |
| Questionnaire design | June 2006 | 2 weeks |
| Training of the interviewers : - South/centre and Baghdad - Al Anbar - Kurdistan | June 2006 September 2006 December 2006 | 2 weeks 2 weeks 2 weeks |
| Pilot survey | June, Sept., December 2006 | 3 days |
| Printing survey materials in Arabic | June – July 2006 | 1 month |
| Coordination meeting between the steering committee and MOHK officials | July 2006 | 3 days |
| Creation of operation rooms in the WHO, MOH and MOHK | July 2006 | 1 week |
| Refresher course for interviewers | July 2006 | 1 day |
| Training course on data management CSpro programme | July 2006 | 2 weeks |
| Training of central editors | August 2006 | 1 week |
| Office editing and coding | August – October 2006 | 3 months |
| Training of data entry personnel | August 2006 | 2 weeks |
| Translation and printing of survey instruments in two Kurdish language dialects | September – November 2006 | 2 months |
| Field work: - South/Centre - Al Anbar - Kurdistan | August – September 2006 October – November 2006 February – March 2007 | 6 weeks 7 weeks 6 weeks |

| Activity | Starting Date | Duration |
|--|---|-----------------|
| Data entry, editing and cleaning -South/Centre - Kurdistan | October – November 2006 March – April 2007 | 2 months |
| Preliminary report writing | May – June 2007 | 6 weeks |
| Detailed tabulation | June – July 2007 | 2 months |
| Final report preparation | August – Sept 2007 | 2 months |

IMHS

IMHS

Implementing agencies:

Ministry of Health / Iraq
Central Organization for Statistics and
Information Technology, Ministry of
Planning and Development Cooperation
Ministry of Health/Kurdistan Region/ Iraq
Kurdistan Regional Statistics Office, Ministry
of Planning/Kurdistan Region/ Iraq

Ministry of Health in Iraq
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**World Health
Organization**

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