

## Twelve-Month Service Utilization Rates for Mental Health Reasons: Data from the Israel National Health Survey

Daphna Levinson, PhD,<sup>1</sup> Yaacov Lerner, MD,<sup>2</sup> Nelly Zilber, D. ès Sc.,<sup>2,3</sup> Alexander Grinshpoon, MD,<sup>1</sup> and Itzhak Levav, MD<sup>1</sup>

<sup>1</sup> Ministry of Health, Rivka 29, Jerusalem, Israel

<sup>2</sup> Falk Institute for Mental Health Studies, Kfar Shaul Hospital, Jerusalem, Israel

<sup>3</sup> French Research Center of Jerusalem, Israel

**Abstract:** *Objective:* To measure the 12-month utilization rates for mental health reasons in all types of services. *Method:* A representative sample extracted from the National Population Register of non-institutionalized residents aged 21 or older were interviewed at their homes between May 2003 and April 2004. DSM-IV disorders were assessed using a revised version of the Composite International Diagnostic Interview (WMH-CIDI). *Results:* About 10% of the adult population receives some type of treatment for emotional or mental health problems within a single year. More than half of service consumers were not classified as suffering from mood or anxiety disorders. Of those diagnosed with mood or anxiety disorders in the past 12 months only about 50% used any type of service for mental health problems. *Conclusion:* There is only a partial overlap between those who utilize the services and those who meet the criteria for a clinical diagnosis of mental disorder.

### Introduction

The Israel National Health Survey (INHS) is the first general population survey in Israel designed to provide a full picture of the utilization of mental health services, general health services and other services by individuals with mental problems.

Until now, information on the utilization of services for mental health reasons in Israel has been limited to the population treated by the specialist services, such as the survey conducted in 1986 (1). That study showed that about 2% of the population used specialist mental health services during a single year, and that about one-third of the consumers each year belong to the group with "severe and protracted mental illness" (SMI), which is estimated at 1.2% of the entire adult population (2). That survey led to the assumption that in Israel, as in other western countries (3–5), most people with common mental health problems, such as anxiety or mood disorders, do not receive help from the public specialist services.

Our survey was designed to estimate the size of the population using any type of health, welfare or traditional services for the treatment of emotional or mental problems. This estimate is of topical interest

because in Israel mental health care is about to be included in the mandatory basket of services provided to all residents by the Health Maintenance Organizations (HMOs) (6).

The study objectives were to establish the 12-month utilization rates of all types of services for mental health reasons, to estimate the extent to which mental health professionals are consulted by individuals with severe disorders, and to compare the results with those obtained in other countries participating in the WHO/ World Mental Health (WHO/WMH) Survey (7).

### Methods

The Israeli survey followed the procedures established by the WHO/WMH Survey (8). The sample (see Levinson et al. in this issue) was extracted from the National Population Register (NPR) and comprised non-institutionalized *de jure* residents, aged 21 and over. The sample was designed to reflect a fixed distribution of respondents combining gender, age groups and population sectors (Arab-Israelis; Jewish-Israelis: Israel-born or immigrants from the

former U.S.S.R., pre- and post-1990). The interviewed sample was weighted back to the total population to compensate for unequal selection probabilities resulting from disproportionate stratification, clustering effects and non-response. The weights were adjusted to make sample totals conform to known population totals taken from reliable Central Bureau of Statistics (CBS) sources.

Face-to-face interviews at the respondents' homes were conducted from May 2003 to April 2004 in Arabic, Hebrew or Russian. The survey was administered using laptop-computer-assisted personal interview (CAPI) methods by professional survey interviewers, trained and supervised by the CBS. Interviews took on average 60 minutes, and the overall response rate was 73% (88% among Arab-Israelis; 71% among Jewish-Israelis), totaling 4,859 completed interviews. There were no replacements. A Human Subjects Committee approved the study.

The present analysis is based on the following sections of the interview schedule:

1. *The CIDI (8) Diagnostic Section.* This provided lifetime and 12-month prevalence rates of disorders according to both the ICD-10 and the DSM-IV psychiatric classification systems. In our survey, the following disorders were assessed: anxiety disorders (panic disorder, generalized anxiety disorder, agoraphobia without panic disorder, and post-traumatic stress disorder); mood disorders (major depressive disorder, dysthymia, bipolar I and II disorders); and substance abuse disorders (alcohol and drug abuse/dependence) which are used in this paper as one component in the definition of clinical severity, but are otherwise excluded from this analysis. Each diagnostic section also included four Sheehan Scales (9) to measure the self-assessed level of impairment of work, household tasks, relationships and social life, during the past 12 months when the disorder was most severe. The scales ranged from "0" = no impairment to "10" = very severe impairment.

2. *Treatment Contact.* Near the end of each WMH-CIDI diagnostic section, respondents were asked whether they had ever talked to a medical doctor or other professional about the disorder under investigation. Respondents who answered "yes" were asked their age at first contact.

3. *Service Utilization because of Emotional or Mental Problems.* Respondents were asked whether they had visited any of a list of professionals to talk about problems related to their mental or emotional health. The professionals listed comprised those in the specialist mental health services (psychologists, psychiatrists, social workers), general medical professionals (such as GPs), religious counselors (rabbis, sheikhs), and healers (e.g., naturopaths). The questionnaire asked about consultation in the past 12 months and consultation "ever," the type of organization providing the service, the number of visits per year and satisfaction with services.

Respondents who never used professional or traditional services were asked whether they ever thought they needed such services or whether they intended to consult them in the future.

4. *Utilization of Psychotropic Medications.* In a separate section of the interview, all respondents were asked whether they used "any type of prescription medication in the past 12 months for problems with emotions, substance abuse, energy, concentration, sleep, or ability to cope with stress." Respondents were instructed to indicate any medication they had used (even if only once) from a list of psychotropic medications presented to them. For each medication mentioned, respondents were asked about the length of time they had taken it and the dosage. For three medications (randomly chosen from the selected medications), further treatment details were asked, if the respondent had taken the medications for more than 180 days.

5. *Employment.* All respondents were asked about their present and past employment, the length of time employed, the type of work and, if relevant, the reasons for less than full-time employment.

### Consulting the health care services

One of the main objectives of the study was to determine the extent to which mental health professionals are consulted by persons with mental disorders. This question assumes a hierarchy of expertise among the types of services used, where mental health specialist services head the list. Visiting a professional mental health worker probably implies awareness of a psychiatric problem, as well as knowledge of the existence and purpose of the mental health services.

A visit to general health or other types of services rather than specialist services for emotional/mental problems might indicate, among other factors, lesser awareness of the psychiatric problem, or lack of access to mental health services, or lack of a referral to professional mental health services or a preference for avoiding mental health services because of possible stigma.

The services used were divided into the following categories:

1. *Consultation with any mental health (MH) professional* — All respondents who indicated that in the past 12 months they had consulted a psychiatrist, psychologist, social worker or other specialist mental health worker, *whether or not they also consulted other medical, religious or traditional agents*.

This category was further divided into three sub-categories according to the setting in which the MH professionals were consulted:

- A Public settings — respondents in the “any MH” group who visited a mental health government clinic, HMO clinic, or hospital emergency department.
- B Private settings — respondents in the “any MH” group who visited mental health professionals’ private clinics.
- C Workplace/welfare settings — respondents in the “any MH” group (see above) who made their visits in workplaces, welfare services or other settings, outside the health care system.

2. *Consultation with other medical professionals* — All those not included in “1” (Consultation with MH professional) who consulted GPs/other doctors or other health professionals, whether or not they also consulted religious or other traditional agents.

3. *Consultation with religious or other traditional agents* — All those who consulted only with religious counselors or other traditional healers.

4. *Psychotropic medication use*. All respondents who were prescribed psychotropic drugs for more than 180 days and who admitted taking them for emotional or mental problems under the supervision of a health professional, but did not mention any consultation with mental health professionals or traditional healers (and therefore were not included in the

above 1, 2 and 3 groups) were included here. In order to remove respondents with primarily sleep problems, all those with only the following cluster of characteristics were excluded: taking sedatives exclusively, having sleep problems, aged 65 or more and not having any mood or anxiety disorder in the last 12 months.

Note here that having a CIDI diagnosis was not required for any of the “Type of Service” groups.

### Types of service users

The CIDI provided estimates of mood and anxiety disorders, but did not provide information about schizophrenic or other non-affective psychotic disorders. A marker was used to identify respondents who did not meet the criteria for mood or anxiety disorders, but who nevertheless were *legitimate* mental health services users. Self-assessed restrictions on employment due to health (physical and/or mental) were used as a marker for respondents who might have had mental health problems not classified as anxiety or mood disorders. This paper reports, therefore, on two groups of service users: those with mood or anxiety disorders and those not classified as having these disorders, but who reported health-related (“mental” or “mental and physical”) employment restrictions.

### Clinical severity

Respondents with any mood or anxiety DSM disorder in the past 12 months (“AMAD”) were divided into three groups according to the degree of severity of the disorder:

- 1. *Severe cases*: respondents with either bipolar I disorder or substance dependence with a physiological dependence syndrome or admitting a suicide attempt during their lifetime or reporting at least two areas of role functioning with severe role impairment due to mental disorder (scored 7 or above on a 10-point severity scale on at least one of the disorder-specific Sheehan Disability Scales).
- 2. *Moderate cases*: respondents not classified in the above category and who assessed the impairment due to mental disorder to be at least moderate (scored above 4 on a 10-point severity scale on at least one of the Sheehan Disability Scales).
- 3. *Mild cases*: all other respondents with AMAD.

### Employment limitations

All respondents were asked about physical or emotional limitations on employment, whether they were out of the workforce, temporarily unemployed or fully employed.

Based on these questions (*“What was the main reason you were not working and also not looking for a job”/ “Do you have any problems with your physical or emotional health that would prevent you from working for pay if you wanted to?”/ “Are you limited in the kind or amount of work you can do because of problems with your physical or emotional health?”*), a four-category variable of “employment limitations” was created:

(1) Due to physical health problems, (2) Due to mental health problems, (3) Due to physical and mental health problems, (4) No health restrictions with regard to employment. Respondents classified as (2) or (3) and who did not have AMAD were included in the analysis as a group with “employment limitations due to mental health reasons.”

All respondents who stated that they did not work or were not looking for work because they had retired, were old, housewives, or for any reason other than health were classified as having “no limitation due to physical or mental health problems.”

### Statistical analysis

The data were weighted to adjust for the differential probabilities of respondents’ selection and non-response, and for differences between the sample and the Israeli adult population.

Patterns of service utilization were examined by computing the proportions of patients in treatment for different subgroups of the sample.

We present here both unweighted numbers of individuals and weighted proportions. The chi square test was used to identify differences between groups. Cumulative probabilities of lifetime treatment contact curves were estimated using survival analysis to estimate projections of the cumulative lifetime probability of treatment contact from the year of onset of the disorder. Separate curves were generated for each disorder. The typical delay until initial treatment contact was defined, based on these curves, as the median number of years from disorder onset to first treatment contact among cases that eventually made the contact.

Logistic regression analysis was carried out to assess the association of different socioeconomic variables with individuals with DSM IV/ CIDI mood or anxiety disorders who had used or not used mental health services in the previous 12 months. Estimates of odds ratios (ORs), the corresponding standard errors and 95% confidence intervals (CI) were also obtained from logistic regression using SUDAAN (10).

### Results

Overall, 20% of the total population reported that they had consulted a health professional or a traditional counselor for their mental health problems at some point in their life, while 7.5% had done so in the previous 12 months. About 8.0% of the sample had used psychotropic medication under medical supervision during the past 12 months for problems with “emotions, substance abuse, energy, concentration, sleep, or ability to cope with stress.”

In most cases, respondents who were prescribed psychotropic medications also reported consultation regarding “mental or emotional health.” They are included in Table 1 under the service they used.

There were, however, another 2.8% of the general adult population who were prescribed psychotropic medications for problems with their emotions/mental health but who, apparently, did not consider these visits as “consultations regarding mental/emotional health” and therefore skipped the main mental health services section of the questionnaire. We have nevertheless included them in Table 1 under “General health, psychotropic medications only.” Thus, a total of 10.3% of the population received some form of treatment for mental or emotional problems during the previous 12 months.

Table 1 shows the consultation rates for the entire population and for different groups of AMAD consumers. Overall, 4.6% of the general population consulted a mental health professional, another 4.4% visited general or other physicians, and 1.3% visited only traditional healers. About half of those consulting mental health professionals attended public mental health clinics (2.0%), while the other half sought private services. A small minority (0.5%) discussed their problems with professionals in services outside the health care sector.



Table 1. *Use of services by presence of common mental disorders and severity level*

		12 Months											Life-time
		Mental Health Professionals				General Health Professionals			Any prof. health services	Religious Spiritual	Any Prof.	Any Prof. (*)	
N		Public Clinic	Private Practice	Non health Services	Total	Doctor/other health prof.	Psychotr. Medicat.	Total					
TOTAL	4859	1	2.0 (0.2)	2.1 (0.2)	0.5 (0.1)	4.6 (0.3)	1.6 (0.2)	2.8 (0.2)	4.4 (0.3)	9.0 (0.4)	1.3 (0.2)	10.3 (0.4)	20 (0.6)
		2	19%	20%	5%	45%	16%	27%	43%	87%	13%	100%	
AMAD	470	1	9.1 (1.4)	7.4 (1.3)	1.9 (0.6)	18.6 (1.9)	5.9 (1.3)	5.5 (1.0)	11.4 (1.6)	30.1 (2.2)	4 (0.9)	34.1 (2.3)	48 (2.4)
		2	27%	22%	6%	55%	17%	16%	33%	88%	12%	100%	
Severe	168	1	13.5 (2.7)	9.4 (2.3)	2.9 (1.3)	26.5 (3.5)	11.8 (2.9)	6.1 (1.8)	17.9 (3.3)	44.4 (4.1)	4.4 (1.7)	48.8 (4.1)	57 (4.1)
		2	28%	19%	6%	54%	24%	13%	37%	91%	9%	100%	
Moderate	166	1	8.5 (2.2)	8.3 (2.3)	1.8 (1.0)	18.6 (3.2)	3.4 (1.5)	5.1 (1.6)	8.5 (2.2)	27.1 (3.6)	6.4 (1.9)	33.5 (3.7)	45 (4.0)
		2	25%	25%	5%	56%	10%	15%	25%	81%	19%	100%	
Mild	136	1	3.9 (1.7)	3.5 (1.7)	0.6 (0.6)	8.0 (2.5)	1.1 (0.8)	5.3 (1.9)	6.4 (2.0)	14.4 (3.1)	0.6 (0.6)	15 (3.1)	40 (4.4)
		2	26%	23%	4%	53%	7%	35%	43%	96%	4%	100%	
No AMAD	4389	1	1.2 (0.2)	1.5 (0.2)	0.3 (0.0)	3.1(0.3)	1.2 (0.2)	2.5 (0.2)	3.6 (0.3)	6.7 (0.4)	1.0 (0.2)	7.7 (0.4)	17 (0.6)
		2	16%	19%	4%	40%	16%	32%	47%	87%	13%	100%	

“Prof.” = Professional; “Psychotr. Medicat.” = Psychotropic medications.

(\*) Excluding “psychotropic medication only” type of service

(1) Rates (SE) in the total population

(2) Distribution of users by type of service providers

Respondents with mood or anxiety disorders (AMAD) had much higher consultation rates, yet only half of them (48.0%) had ever talked about their problem. In the past 12 months, 34.1% had done so: 18.6% had consulted mental health professionals, almost equally distributed between public (9.1%) and private (7.4%) settings, with another 1.9% in non-health public settings. More than 10.0% of those with AMAD went to primary care doctors or other doctors to consult or get prescription medications. Only 4% saw religious or alternative therapists solely. Altogether, only 34.1% of those with AMAD had any form of treatment and for 22.8% of those with AMAD the treatment included psychotropic medication (not shown in the Table).

### Consultation rates by severity of the disorders

Consultation rates and utilization of psychotropic medication were clearly related to the severity of the disorders (see Table 1). Among respondents with severe disorders, 48.8% had some type of consultation in the past 12 months and 32% (not shown in the table) had used psychotropic medication. Individ-

uals with moderate or mild levels of AMAD had lower rates of consultation, 33.5% and 15.0% respectively, and lower rates of psychotropic drug use, 21% and 13% respectively.

There were very few differences in the preferred type of treatment among individuals who sought any type of mental health treatment. The highest proportion of consultation among all disorder severity levels was with mental health professionals, 53.0% — 56.0%, with a slight preference for those in public settings, 25.0%-28.0%.

The three severity groups differed in their utilization of non-mental health services. Respondents with more severe cases of the disorders consulted with primary care doctors proportionally more often than those with less severe (moderate or mild) disorders, 24%, 10% and 7% respectively, and used “psychotropic medication only” much less than the mild group, 13% compared with 35%. Those with moderate disorders used religious-alternative counselors proportionally more often than the other groups, 19% vs. 9% for severe and 4% for mild cases.

Table 2. *Use of services by employment limitations*

	N		12 Months									Life-time	
			Mental Health Professionals				General Health Professionals			Any prof. health services	Religious Spiritual	Any Prof.	Any Prof. (*)
			Public Clinic	Private Practice	Non health Services	Total	Doctor/other health prof.	Psychotr. Medicat.	Total				
TOTAL	4859	1	2 (0.2)	2.1 (0.2)	0.5 (0.1)	4.6 (0.3)	1.6 (0.2)	2.8 (0.2)	4.4 (0.3)	9 (0.4)	1.3 (0.2)	10.3 (0.4)	20 (0.6)
		2	19%	20%	5%	45%	16%	27%	43%	87%	13%	100%	
No AMAD													
Physical limitations	542	1	1.3 (0.5)	0.8 (0.4)	0.2 (0.2)	2.3 (0.7)	3.1 (0.8)	4.1 (0.9)	7.2 (1.1)	9.5 (1.3)	1.2 (0.4)	10.7 (1.4)	21 (1.9)
		2	12%	7%	2%	21%	29%	38%	67%	89%	11%	100%	
Physical and mental limitations	78	1	20.0 (4.7)	2.2 (1.5)	-	22.3 (4.8)	4.0 (2.3)	5.2 (2.6)	9.2 (3.4)	31.5 (5.4)	1.1 (1.1)	32.6 (5.4)	47 (5.9)
		2	62%	6%	-	68%	12%	16%	28%	97%	-	100%	

"Prof." = Professional; "Psychotr. Medicat." = Psychotropic medications.

(\*) Excluding "psychotropic medication only" type of service

(1) Rates (SE) in the total population

(2) Distribution of users by type of service providers

### Consultation rates by employment limitations

Table 2 presents the consultation rates for respondents who reported no anxiety or mood disorders in the past 12 months, but admitted having physical or mental employment-related limitations. Consultation patterns were related to the cause of the employment limitation. About half, 47.0%, of those with "mental health" or both "physical and mental health" employment restrictions had some type of consultation in their lifetime, compared with those with only physical limitation. The latter had consultation rates (21.0%) and patterns similar to or lower than the entire population.

Altogether, 32.6% of those with some mental limitation had some type of treatment in the 12 months prior to the interview and 31.0% (not shown in the table) of them reported using psychotropic drugs. Most of the respondents with some mental health-related employment limitation, 68.0%, had some consultation with mental health specialists: 62.0% in public and 6.0% in private settings. Another 28.0% were treated by GPs: 12.0% consulted the doctors and 16.0% were only prescribed psychotropic medication for their conditions.

In sum, the highest proportion of respondents in treatment was found among individuals with severe

AMAD, followed by the group of individuals with moderate severity and the group with no AMAD, but who had employment limitations due to "mental or physical" reasons. The highest proportion of psychotropic medication use — not considering it as consultation — was among respondents with mild disorders and among those with physical health-related employment limitations.

The utilization of public vs. private mental health services was very different comparing the severe cases of CIDI/DSM-IV mood or anxiety disorders with those with mental employment restriction. Sixty-two percent of respondents with mental employment restrictions used the public system in contrast to 28.0% of those with severe cases of AMAD.

### Treatment lag

Survival curves were used to make projections of the proportion of cases of each disorder assessed in the INMHS who eventually made treatment contact. These curves were used to estimate the proportion of respondents who made treatment contact within one, five and 10 years following the onset of the disorder, and the median lag or delay after onset among those who eventually made treatment contact (Table 3).

Table 3. *Proportion of individuals making treatment contact in the year of disorder onset, within 5 and within 10 years from onset, and median duration of treatment delay*

Disorders		Contact in year of onset %	Contact after 5 years %	Contact after 10 years %	Median duration of delay (years)	N
<b>Anxiety Disorders</b>	Panic disorder	57	69	72	1	45
	Generalized anxiety disorder	31	52	63	5	185
	Any anxiety disorders	36	55	64	3	224
<b>Mood Disorders</b>	Major depressive episode	33	51	64	4	494
	Dysthymia	35	61	72	3	83
	Bipolar disorder	50	54	54	1	31
	Any mood disorders	32	50	62	6	519

The proportion of respondents who made treatment contact in the year of onset ranged between 30.0% and 40.0% for mood or anxiety disorders. The proportion was higher among respondents with panic or bipolar disorders, 57.0% and 50.0%, respectively. Within the first five years after onset, 50.0% to 60.0% of respondents with mood or anxiety disorders had contacted services regarding their disorder.

Except for panic and bipolar disorders, the median treatment-contact lag for anxiety disorders is three years and for mood disorders, six years. That is, 50.0% of respondents with mood disorders did not seek treatment within six years of the first manifestation of the disorder.

Comparison of the median duration of the proportion of respondents making treatment contact within the first year shows that unless treatment contact is made within the first year, the likelihood of treatment diminishes steadily.

#### **Type of service: Utilization rates**

Table 4 shows, for each type of service, how its consumers break down by AMAD and employment limitation. Overall, of those contacting a professional or traditional counselor to talk about mental or emotional problems in the past year, nearly half, 47.0%, had neither AMAD nor health-related employment limitations. This proportion was smaller in mental health public clinics, 32.0%, and among those contacting GPs, 39%. Among respondents taking psychotropic medications who did not define the

consultation as mental health-based, the proportion of respondents with no AMAD or health-related employment limitations was 61.0%.

#### **Number of visits in the past 12 months**

Table 5 presents the number of visits made by those who reported talking to professionals about mental health problems in the past 12 months. The Table presents separately the number of visits (means and medians) made to psychiatrists, psychologists, psychiatric social workers or other mental health professionals, and to GPs and other non-mental health professionals. The visits to each type of professional include all those who visited that professional regardless of whether they had visited other types of professionals as well. While the overall mean number of visits was 14 in the mental health services, the mean number of visits to GPs was only three. This means that treatment by mental health specialists lasted much longer than treatment by GPs.

The mean number of visits is constantly higher than the median, indicating a skewed distribution of visits. The smallest difference between mean and median was in the visits to GPs where more than 50.0% of the respondents made only one visit. Those talking to psychologists or social workers had the highest number of visits with a median of five visits, compared with a median of 2.5 visits to psychiatrists. The mean and the median number of visits to all types of professional did not distinguish between those with and without AMAD.

Table 4. *Distribution of users by diagnosis and employment limitation within the different types of service providers: Percentages (SE)*

	Total	Mental Health Professional			Total	General Health Professionals			Consult Religious/Spiritual/Alternat.	Consult Any Profess.
		Public Clinic	Private Practice	Non health Services		Doctor/ other health profess.	Psychotr. Medicat.			
N	4859	96	102	24	225	76	154	230	60	515
%	100	100	100	100	100	100	100	100	100	100
<b>AMAD Severity</b>										
Severe	4 (0.3)	25 (4.7)	17 (4.0)	–	21 (3.0)	27 (5.8)	8 (2.3)	15 (2.7)	–	17 (1.8)
Moderate	3 (0.3)	14 (3.5)	14 (3.7)	–	14 (2.4)	7 (3.1)	6 (1.9)	7 (1.7)	17 (4.8)	11 (1.4)
Mild	3 (0.2)	–	–	–	5 (1.5)	–	–	4 (1.3)	–	4 (0.9)
<b>No AMAD employment limitation</b>										
Physical limitation	11 (0.5)	7 (2.8)	–	–	6 (1.7)	21 (4.8)	17 (3.3)	18 (2.7)	–	12 (1.5)
Physical & mental limitation	2 (0.2)	17 (4.1)	–	–	8(2.0)	–	–	–	–	5 (1.1)
<b>No AMAD and No employment limitation</b>										
	77 (0.6)	32 (4.6)	59 (5.1)	53 (10.6)	47 (3.4)	39 (5.8)	61 (4.1)	53 (3.4)	58 (6.5)	51 (2.3)

\* Values based on less than 10 cases were omitted from the table, therefore values do not always add to 100%

Table 5. *Median and mean number of visits to health professionals in the past 12 months*

Disorders		Type of Professional			
		Psychiatrist	Psychologists/Soc Work/other MH	Any mental health	Doctor/ Other health profess.
Total	N	107	139	215	169
	Median	2.57 (0.43)	5.28 (0.95)	4.67 (0.83)	1.39 (0.07)
	Mean	8.28 (1.67)	14.33 (1.57)	13.60 (1.40)	2.99 (0.44)
AMAD	N	56	47	83	77
	Median	2.68 (0.59)	5.18 (1.96)	4.51 (1.24)	1.41 (0.11)
	Mean	8.72 (2.52)	14.92 (2.71)	14.63 (2.38)	2.54 (0.27)
No AMAD	N	51	92	133	92
	Median	2.44 (0.56)	5.31 (1.16)	4.80 (0.94)	1.38 (0.10)
	Mean	7.80 (2.12)	14.01 (1.93)	12.92 (1.71)	3.40 (0.81)

### Utilization predictors

Table 6 presents the predictors of utilization (“talk to any professional”) of health services for mental or emotional problems among individuals with

AMAD, in the past 12 months. Service utilization was significantly more prevalent among the age-group 35–64, but was not related to level of education, level of income, gender or marital status.



Table 6. Socio-demographic and disorder type predictors of any 12-month treatment: Logistic regression.

Variables		Any Treatment, Given Any 12- Month Disorder OR (95% CI)
<b>Age</b>	21–34	1.0 (0.5–2.2)
	35–49	2.6 (1.3–5.4)
	50–64	1.6 (0.8–3.3)
	65+	1.0
<b>Gender</b>	Male	1.1 (0.7–1.7)
	Female	1.0
<b>Education</b>		
None — some primary or secondary		1.0 (0.5–1.9)
Completed secondary		0.9 (0.5–1.7)
Post-secondary		0.8 (0.4–1.7)
College graduate		1.0
<b>Marital status</b>		
Never married		1.7 (0.9–3.4)
Separated/widowed/divorced		1.4 (0.8–2.5)
Married/cohabitating		1.0
<b>Income</b>	Low	0.7 (0.3–1.4)
	Low average	0.7 (0.3–1.3)
	High average	0.5 (0.2–0.9)
	High	1.0
<b>Any anxiety in the last 12 months</b>		
Yes		2.5 (1.5–4.4)
No		1.0
<b>Any mood disorder in the last 12 months</b>		
Yes		2.5 (1.3–4.6)
No		1.0
<b>Any substance use disorder in the last 12 months</b>		
Yes		0.4 (0.2–1.1)
No		1.0

## Discussion

In the framework of the Israel National Health Survey, the present paper describes the scope and type of use of services for emotional or mental health problems by the adult population. Limitations and strengths of the Israel National Health Survey have been partly discussed in the previous paper (pp. 85–93 in this issue). In addition, one should take into consideration a possible selection bias: if people who

use mental health services are less likely than others to agree to participate in the survey, the level of service use for mental health reasons would be underestimated. This underestimation, however, should be minor in view of the relatively high response rate. Second, our survey did not cover the full spectrum of mental disorders. As a result, there were service users whose use could not be explained by a diagnosis of AMAD. In order to try and overcome this limitation, we added a group of users who were not classified as having AMAD, but who admitted “employment limitations” due to mental health reasons. The level of service use in this group was relatively high, justifying *a posteriori* the creation of this group. Nevertheless, there remains a possibility that not all those with need of services were identified. These possible limitations notwithstanding, the results provide previously unavailable information on types of use and distribution of providers of treatment for mental health problems in Israel.

The results of the Israel National Health Survey show that about 10.3% of the adult population receives some type of treatment for emotional or mental health problems within a 12-month period; 8.5% from the mental health care or general health care system and another 1.8% contact mental health workers outside the health care system or talk to alternative or traditional healers.

The public mental health services were utilized by only 2.0% of the population, similar to the figure estimated in the 1986 report (11). Another 2.1% reported that they had visited mental health professionals in private settings, payment for which could have been made in some cases through the voluntary health insurance offered by the HMOs. Altogether, 4.6% of the population used specialist mental health services during the 12-month period.

The highest 12-month utilization rate (48.8%) — including all forms of treatment — was found among individuals with severe AMAD. This means that half of the respondents whose cases were considered severe did not seek treatment. Given the data on treatment lag, we can assume that less than half of them would seek help within the next three to six years. The second highest 12-month utilization rate belonged to the group of individuals with no AMAD, but who had employment limitations due to “mental” or “mental and physical” reasons. These two

groups differed in their preferred type of service: 55.0% of those with mental/physical employment limitations preferred the public mental health system, compared to 28.0% of respondents with severe AMAD. Only 8.0% of persons with mental/physical employment limitations consulted mental health professionals in private settings, compared with 19.0% of those with severe AMAD. A large proportion of those with mental/physical employment limitations and without AMAD probably includes persons with schizophrenia, who are treated mainly by the public services.

The utilization of health services for mental or emotional reasons was not confined solely to those with DSM-IV mood or anxiety diagnoses or to those with mental/physical employment limitations. About one-third of those visiting specialist mental health services and about 40% of those consulting general practitioners did not have any AMAD and did not report any health-related employment limitations. However, since they made no fewer treatment visits than persons with AMAD, it seems reasonable to assume that the therapists (psychiatrists and psychologists) considered them to have equal need for care.

The mean number of visits to psychiatrists was smaller than the mean number of visits to other mental health therapists, probably due to the differences in the typical mode of treatment, namely, medication vs. psychotherapy. While the overall mean number of visits for consultation was 14 in the mental health services (higher than the annual average of 10 visits per patient known from administrative sources [12]), the mean number of visits to GPs was only three, which means that GP treatment was not only different from, but also much briefer than treatment by mental health specialists.

Almost 3% of the entire population and almost one-third of all service users were found by this study to have received some type of mental health treatment even though some of the treatment visits were for psychotropic drug treatment only, and were not reported by the recipients as visits to "talk about mental/emotional problems." We assumed that since the majority of these patients had mild AMAD, they either came to the doctor because of somatic reasons and minimized the importance of the underlying emotional problems, or presented somatic symp-

toms to the doctor because they believed that this was a more appropriate route for seeking help from a primary care physician (13). In both cases, the patients did not think that they had "talked about mental/emotional problems" even though they knew that the medication they took was intended to alleviate such problems. We decided to count in all these cases in order to reach the broadest estimate of service utilization related to mental health problems.

Table 7. *Use of services in WMH countries by severity level of WMH-CIDI DSM IV diagnosis, rate in percent*

Countries	12 month rates of use of services for mental health reasons		
	General population	Among severe cases of disorder	Among mild cases of disorders
Nigeria	0.8	–	10.3
Beijing-Shanghai	3.0	–	0.5–2
Lebanon	3.7	14.6	4.5
Mexico	4.2	20.2	10.2
Italy	4.5	–	18.9
Ukraine	4.9	19.7	7.1
Colombia	5.0	23.7	8.4
Japan	5.7	–	11.2
Spain	7.3	64.5	35.2
Germany	7.8	49.7	27.9
Israel	8.5	44.4	14.4
Netherlands	10.7	50.2	26.5
Belgium	11.0	53.9	28.2
France	12.4	63.3	22.3
U.S.A.	15.3	52.3	22.5

Adapted from JAMA 2004;291:2581–2590 (7)

It is simple to compare our results with those obtained in other countries because all the studies quoted below are part of the WMHS. In general, the results place Israelis among the higher utilizers of general health care or mental health care services for emotional problems.

The overall annual utilization rate of mental health or general health services for mental health reasons in Israel was 8.5%, compared with rates ranging from 0.8% in Nigeria to 15.3% in the U.S.A. (see Table 7). In a separate survey conducted in Canada (14) the corresponding figure was 9.5%.

The annual utilization rate among those with

severe mood or anxiety disorders in Israel was 44.4%, compared with rates ranging from 14.6% in Lebanon to 64.5% in Spain (see Table 7), and among those with *mild* mood or anxiety disorder, the rate in Israel was 14.4%, compared to 0.5% in Beijing up to 35.2% in Spain (see Table 7).

In Canada (13), the utilization rate for those with major depression or bipolar disorders (at all severity levels) was 50–55%. In Australia (15), the rates were 28% for those with anxiety disorders and about 55% for those with mood disorders.

The Israeli utilization rate for psychotropic medication among those with mood or anxiety disorders was 22.8% and among those with the severe cases, 32%. In the European Study of the Epidemiology of Mental Disorders (ESEMEd) group (16), 32.6% of those with mood or anxiety disorders were taking psychotropic medications.

The proportion of respondents who made treatment contact in the year of disorder onset in Israel was higher than that found in the U.S.A. (17). The highest year-of-onset contact rate in Israel was found among respondents with panic disorder or bipolar disorder, 57% and 50%, respectively, while the median contact lag for all disorders ranged from one to six years. In the U.S.A., for the same types of disorders, the highest year-of-onset contact rate was found among those with dysthymia (41.6%) and bipolar (39.1%), while the median contact delay ranged from six to 12 years.

## Summary and Conclusions

About 10.3% of the Israeli adult population utilizes the mental health and general health services for mental health reasons in any one year (8.5%, if we exclude those who received only psychotropic medication and did not report their treatment visits as mental health consultation). Yet there is only a partial overlap between those who utilize the services and those who met the criteria for a clinical diagnosis of mental disorder.

More than half of service consumers are neither diagnosed with a mood or anxiety disorder nor have some other mental health problem limiting their employment. Among consumers of professional mental health services or of primary care, those without either AMAD or some health-related employment

limitation were granted the same number of visits as those with AMAD. That is, therapists decided that these cases with sub-threshold symptoms needed mental health treatment as much as those with AMAD. On the other hand, of those diagnosed with the CIDI/DSM-IV diagnosis of mood or anxiety disorders in the past 12 months, only about 50% used any type of service to alleviate their condition and, moreover, those who did did not differ by gender, family status, level of income, or level of education from those who did not. The tentative implication could be that not all those untreated cases of AMAD represent unmet need.

Further analysis is needed to clarify whether factors like disability, role performance limitations or self-assessed mental health status might explain who among individuals with sub-threshold symptoms were making use of the system, and who among those with severe cases of DSM AMAD did not seek help.

## Acknowledgements

The National Health Survey was funded by the Ministry of Health with additional support from the Israel National Institute for Health Policy and Health Services Research and the Israel National Insurance Institute. The views and opinions expressed in this chapter are those of the authors and should not be construed to represent the views of any of the sponsoring organizations, or of the Government.

The Israel Health Survey was carried out in conjunction with the World Health Organization/World Mental Health (WMH) Survey Initiative. We thank the staff of the WMH Data Collection and Data Analysis Coordination Centers for assistance with instrumentation, fieldwork and consultation on data analysis. These activities were supported by the National Institute of Mental Health (R01 MH070884), the John D. and Catherine T. MacArthur Foundation, the Pfizer Foundation, the U.S. Public Health Service (R13-MH066849, R01-MH069864, and R01 DA016558), the Fogarty International Center (FIRCA R03-TW006481), the Pan American Health Organization, Eli Lilly and Co., Ortho-McNeil Pharmaceutical, Inc., GlaxoSmithKline, and Bristol-Myers Squibb. A complete list of WMH publications

can be found at <http://www.hcp.med.harvard.edu/wmh/>.

## References

1. Feinson MC, Lerner Y, Levinson D, Popper M. Ambulatory mental health treatment under universal coverage: Policy insights from Israel, *Milbank Q* 1997;75: 235-260.
2. Aviram U, Zilber N, Lerner Y, Popper M. Chronically mentally ill persons in Israel: Estimations of their number and characteristics. *Social Security* 1998;53: 92-105.
3. Kessler RC, Demler O, Frank RG, Olfson M, Pincus HA, Walters EE, Wang P, Wells KB, Zaslavsky A. Prevalence and treatment of mental disorders, 1990 to 2003. *N Engl J Med* 2005;16:2515-2523.
4. Bebbington PE, Brugha TS, Meltzer H, Jenkins R, Ceresa C, Farrell M, Lewis G. Neurotic disorders and the receipt of psychiatric treatment. *Psychol Med* 2000; 30:1369-1376.
5. Kohn R, Saxena S, Levav I, Saraceno B. The treatment gap in mental health care. *Bull World Health Organ* 2004;82:858-866.
6. Haver E, Shani M, Kotler M, Fast D, Elizur A, Baruch Y. Reform in mental health services — from whence and to where. *Harefuah* 2005;144:327-331 (in Hebrew).
7. WHO World Mental Health Survey Consortium. Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. *JAMA* 2004; 291: 2581-2590.
8. Kessler RC, Ustun TB. The World Mental Health (WMH) Survey Initiative Version of the World Health Organization (WHO), Composite International Diagnostic Interview (CIDI). *Int J Methods Psychiatr Res* 2004;13:93-121.
9. Sheehan D. The anxiety disease. New York: Bantam, 1983.
10. Shah BV, Barnwell BG, Bieler GS. SUDAAN user's manual, release 8.0.1. Research Triangle Park, North Carolina: SAS Institute Inc., 1997.
11. Levinson D, Popper M, Lerner Y, Feinson M. Patterns of ambulatory mental health services utilization in Israel: Analysis of data from a national survey — 1986 and from a follow up — 1994. Department of Information and Evaluation, Mental Health Services, Ministry of Health, and JDC — Israel Falk Institute for Mental Health and Behavioral Studies, 1996 (in Hebrew).
12. Ministry of Health, Mental Health Services, Department of Information and Evaluation, Statistical Annual 2004. Jerusalem: Ministry of Health, 2005.
13. Simon ES, Von Korff M, Piccinelli M., Fullerton, C. & Ormel J. An international study of the relation between somatic symptoms and depression. *N Engl J Med* 1999; 341: 1329-1335.
14. Wang J, Scott B, Patten SB, Williams JV, Currie S, Beck CA, Maxwell CJ, El-Guebaly N. Help-seeking behaviours of individuals with mood disorders. *Can J Psychiatry* 2005; 50: 652-659.
15. Andrews G, Hall W, Teesson M, Henderson S. The mental health of Australians. Mental Health Branch, Commonwealth Department of Health and Aged Care, April, 1999.
16. The ESEMeD — MHEDEA 2000 investigators. Psychotropic drug utilization in Europe: Results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) project. *Acta Psychiatr Scand* 2004; 109: 55-64.
17. Wang PS, Berglund P, Olfson M, Pincus HA, Wells KB, Kessler RC. Failure and delay in initial treatment contact after first onset of mental disorders in the national comorbidity survey replication. *Arch Gen Psychiatry* 2005;62:603-613.

## Call for Manuscripts

The following subjects are in the process of being gathered for special sections:

ADHD in adults • Culture and mental health • Holocaust and mental health  
 Special treatments in psychiatry • Obsessive Compulsive Disorder  
 Cognitive behavioral therapy • Neurodevelopmental disorders  
 • Social phobia • Liaison psychiatry

Authors are invited to submit manuscripts on any of the above subjects  
 to the editor, David Greenberg at [israeljp@huji.ac.il](mailto:israeljp@huji.ac.il)