## מאיירס - ג'וינט - מכון ברוקדייל MYERS - JDC - BROOKDALE INSTITUTE مایرس- جوینت - معهد بروکدیل



#### THE CENTER FOR RESEARCH ON AGING

## Comprehensive Geriatric Assessment Clinics in Israel

Netta Bentur ◆ Shelley Sternberg ◆ Tal Spalter
John Lemberger ◆ Assaf Sharon

The study was funded with the assistance of the Israel National Institute for Health Policy and Health Services Research and the Maccabi Institute for Health Services Research



RESEARCH REPORT

# Comprehensive Geriatric Assessment Clinics in Israel

Netta Bentur<sup>1</sup> Shelley Sternberg<sup>2</sup> Tal Spalter<sup>1</sup> John Lemberger<sup>2</sup> Assaf Sharon<sup>1</sup>

The study was funded with the assistance of the Israel National Institute for Health Policy and Health Services Research and the Maccabi Institute for Health Services Research

Jerusalem February 2011

<sup>&</sup>lt;sup>1</sup> Myers-JDC-Brookdale Institute

<sup>&</sup>lt;sup>2</sup> Maccabi Healthcare Services

Editor: Mati Moyal

English translation (executive summary): Naomi Halsted

Layout and print production: Leslie Klineman

Myers-JDC-Brookdale Institute P.O.B. 3886 Jerusalem 91037, Israel

Tel: (02) 655-7400 Fax: (02) 561-2391

Web site: www.jdc.org.il/brookdale



## **Related Myers-JDC-Brookdale Institute Publications**

Bentur, N.; Citron, D.; Chekhmir, S.; Lemberger, J.; Valinsky, L.; Ben-Moshe, Y. 2008. "Health Passport" – A Health-Maintenance Program for the Elderly in the Community: Evaluation Study. RR-506-08 (Hebrew).

Bentur, N. and Chekhmir, S. 2003. *Screening for Hearing and Vision Problems: An Evaluation Study*. RR-409-03 (Hebrew).

Bentur, N. and Resnizky, S. 2002. *Medical Home Care in the Israeli Health System*. RR-393-02 (Hebrew).

Wertman, E. (Herzog Hospital); Brodsky, J.; King, Y.; Bentur, N.; Chekhmir, S. *Elderly People with Dementia: Prevalence, Identification of Unmet Needs and Priorities in the Development of Services*. RR-461-05 (Hebrew).

To order publications, please contact the Myers-JDC-Brookdale Institute, P.O.B. 3886, Jerusalem, 91037; Tel: (02) 655-7400; Fax: (02) 561-2391; E-mail: brook@jdc.org.il

Reports are also available on the Institute website: www.jdc.org.il/brookdale

### **Executive Summary**

#### 1. Introduction and Background

Ensuring quality of care for a growing number of elderly people while containing costs is one of the major challenges facing the healthcare system today. Studies conducted in the past two decades and evidence from around the world have shown that comprehensive geriatric assessment (CGA) contributes to early diagnosis of disorders among elderly patients, can delay the onset of disabilities and facilitates the creation of suitable treatment programs. The service includes a comprehensive assessment by an interdisciplinary team of physicians, nurses, occupational therapists, psychologists and social workers.

The Ministry of Health maintains that CGA is to be included in the service package as stipulated by the National Health Insurance Law, in the same way as other specialist clinics, and that the health plans are therefore required to provide it. The health plans argue that CGA is an expensive service that requires a multidisciplinary staff and is not, therefore, comparable to other specialist services. Some of the health plans implement CGA clinics, but only to a limited extent with regard to the number of clinics and their geographical spread.

Over the past decade, Maccabi Healthcare Services (hereinafter, Maccabi) has been developing different types of specialist services for community-dwelling elderly in order to respond to their many diagnostic and care needs and to enhance treatment and make it more efficient. Since 2002, the health plan has set up a CGA clinic in every district. Given the complexity and cost of the service, Maccabi recognized that it was important to examine the extent to which the clinics help the elderly and their family physicians, and are succeeding in reaching the target population. In order to conduct a comprehensive examination of the service, Maccabi and the Myers-JDC-Brookdale Institute joined forces to conduct the current study, which was designed to elucidate the contribution made by CGA to the elderly and their family physicians, as well as the strengths and weaknesses of its implementation. The objective was to ascertain its benefits, strengths and weaknesses to inform decision-making regarding the tools for efficient provision of the service.

#### 2. Specific Study Goals

- 1. To describe the characteristics of elderly persons who have undergone CGA, to ascertain whether "suitable" elderly people are indeed referred
- 2. To identify changes six months after CGA in the intervention group and compare them with changes over a 6-month period in a control group that did not undergo CGA
- 3. To assess the satisfaction of patients, their family members and physicians with CGA and their perceptions of its benefits

#### 3. Study Design

The study was in part retrospective and in part a quasi-experimental prospective study. It included several population groups and various data-collection methods were used:

- 1. Data were extracted from computerized databases and the medical records of all patients who underwent CGA through Maccabi in 2007 (total 580 patients).
- 2. Face-to-face interviews were conducted with a representative sample of 221 elderly patients and their primary caregivers prior to and six months after CGA (the experimental group). Two interviews were conducted six months apart with a sample of 166 elderly persons who had not undergone CGA (the control group).
- 3. Anonymous self-report, closed questionnaires were used to interview 200 family physicians who had referred their patients for CGA.

#### 4. Findings

#### 4.1 Characteristics of Elderly Patients who Underwent CGA

The average age of the patients was 79; twenty-six percent were aged 85+ and 59% were women. With regard to ADL functioning, 24% had disabilities (Barthel Index less than 60) and 18% needed partial assistance (Barthel Index 61–80). About 31% had disabilities in IADL and 32% needed partial assistance. Over half of them (52%) suffered some level of cognitive impairment; 41% had fallen; 35% had urinary incontinence problems. Furthermore, 27% suffered from 5–6 indicators of geriatric conditions (e.g., ADL and IADL functioning, cognitive decline, urinary incontinence, depression and chronic illnesses). With regard to common chronic illnesses, 55% suffered from heart disease, 28% from diabetes and 18% from cancer. The findings reveal that the elderly individuals referred for geriatric assessment suffered from multiple symptoms that required an in-depth diagnosis and suitable treatment from a team of professionals trained in geriatrics.

#### 4.2 Changes in Elderly Patients who Underwent CGA

Most of the geriatric syndrome indicators (IADL, cognitive status, depression, falls) were observed to remain stable over six months in both the experimental and control groups. The exceptions were ADL functioning and urinary incontinence. While in the experimental group, the average ADL score remained stable for 6 months (82 out of 100 in the first interview and 80 in the second), the average score in the control group declined significantly (81 in the first interview and 77 in the second). Similarly, the percentage of those with urinary incontinence in the experimental group was stable, while it increased in the control group. There was also an increase in the percentage of respondents in the experimental group who perceived their state of health to be good after six months (from 38% to 46%) while the percentage remained stable in the control group. There was an improvement in the experimental group with regard to their perception of health-related quality of life; this was particularly evident with regard to the mental component (average score of 62 before the assessment and 55 six months later - the lower average score indicates an improvement in the perceived health-related quality of life), while this remained stable in the control group. In the experimental group, there was a higher rate of utilization of some of the health and social services. For example, 54% had caregivers through the Long-Term Care Insurance Law after CGA, compared with 42% prior to the assessment, while in the control group, utilization of these services remained stable. The percentage of appointments with psychiatrists also increased considerably in the experimental group, while remaining stable in the control group. The vast majority of the patients reported the assessment findings to their family physicians and about a third reported that their physician had changed their medication in accordance with the recommendations. The findings reveal that the geriatric assessment contributed both to the quality of life of the patients and to their utilization of health and social services.

#### 4.3 Satisfaction with the Geriatric Assessment among Families of the Patients

About two-thirds of family members of elderly patients who underwent CGA believed that their problems had been considered and addressed and two-thirds felt that the explanations and information they received from the clinic staff were structured and clear. However, 17% would have liked more information than they were given.

#### 4.4 Perceived Benefit of CGA for the Family Physician

Most of the physicians agreed that the geriatric clinics took the physical and mental condition of the patients and their social and family status into account more than other specialist clinics, and that their medication recommendations were more considerate of the financial situation of the patient. The main benefits of CGA are threefold: Provision of recommended medical treatment, improved diagnosis and medication management; Instrumental care and referral to services; Identification and treatment of cognitive decline.

#### 5. Conclusion and Implications for Policy

During the geriatric assessment, the patients undergo several hours of examinations and tests conducted by a multidisciplinary team. It is, therefore, a more expensive, human-resource-intensive service than that provided at other specialist clinics. Maccabi operates such clinics in every one of its six districts and it has developed standard work procedures, which are in general followed. However, differences have gradually developed between the clinics. The health plans have an interest in running these clinics in the most informed and efficient way possible and ensuring that family physicians refer only those patients who have multiple geriatric symptoms that they themselves have difficulty coping with. This is so that both patient and physician can reap the maximum benefit and act on the recommendations.

The findings reveal that suitable elderly patients in need of in-depth assessment and treatment in multiple areas were referred to the CGA clinics. About half of them suffered from cognitive decline and a third from 5–6 concurrent geriatric symptoms and they made frequent use of the health services. It therefore appears that these clinics are indeed treating the appropriate target population and that the physicians at Maccabi have indeed managed to identify suitable patients.

Concerning the benefits to the elderly, the findings reveal that the geriatric symptoms of the patients who underwent the CGA, as well as those who did not, remained generally stable over a period of six months. At the same time, it was noted that in the experimental group, the level of remained stable, with a slight improvement in ADL functioning and urinary continence, while in the control group, the level was stable or declined. Furthermore, patients who had undergone

CGA subsequently increased their utilization of services such as psychological counseling or caregivers through the Long-Term Care Insurance Law, while there was no change among those in the control group. In this respect, the assessment did indeed achieve one of its important goals, as well as contributing to the functioning of the patients and improving their utilization of services. In addition, the percentage of patients reporting they were in good health increased in the experimental group and there was some improvement in the mental-health aspects of their quality of life, while there was no change in the control group. These findings confirm that the assessment helped improve the subjective feelings of the patients about their quality of life and their ability to cope, even if there was no improvement in their condition. The patients and their families expressed satisfaction with the fact that they had been assessed and they reported that they were following a considerable amount of the recommendations given at the clinic. The CGA was also found to be of benefit to the family physicians and to help them adjust medication and cope with cognitive deterioration.

The study findings show that the comprehensive geriatric assessment clinics are beneficial to the elderly and to their family physicians. It is therefore worth considering their implementation and expansion positively. However, it is important to ensure that referrals for assessment are given to "suitable" patients (e.g., those whose family physicians detect signs of cognitive decline) and those most likely to benefit from the assessment and recommendations such as guidance and reference to auxiliary services. At the same time, it is advisable to formulate structured standards and criteria for suitable candidates and to disseminate these criteria to physicians, both to increase their awareness of the clinics and to encourage appropriate referral. Finally, a more in-depth examination of efficient and cost-effective work practices and procedures is required, so that the number of CGA clinics and scope of their work can be increased without significantly increasing resources.

\*\*\*\*

In the course of the past year, the study findings have been presented to the management and district directors of Maccabi Healthcare Services and discussions have been held with them regarding improvements and measures to increase efficiency at the clinics in line with the findings. The findings have also been presented to the management of the Geriatric Division at the Ministry of Health, which is responsible for developing criteria for CGA clinics at all the health plans and for the introduction of the service as part of the service package provided through the National Health Insurance Law. Furthermore, the Ministry for Senior Citizens and the Geriatric Division at the Ministry of Health are using the findings to design and develop a joint program to expand the use of CGA clinics by providing incentives to the health plans for increasing these evaluations and will constitute the basis for the care of the elderly. The findings have also been presented at other professional forums and conferences in Israel and abroad and they have elicited great interest.

The study was funded with the assistance of the Israel National Institute for Health Policy and Health Services Research and the Maccabi Institute for Health Services Research.

### **Acknowledgments**

As always, it is a great pleasure to thank all those who have assisted us throughout the various stages of this study. We are grateful to the directors and staff of the CGA clinics at Maccabi Healthcare Services and to the members of Maccabi's computer department for cooperating with us and helping us with the data collection and data files.

We also thank the Israel National Institute for Health Policy and Health Services Research and the Maccabi Institute for Health Services Research, which funded the study.

We thank Yaron King for his involvement during the early stages of the project and to our colleagues at the Institute for their comments and insights. Thanks to Mati Moyal for her astute editing of the report, to Leslie Klineman for preparing it for publication, and to Elana Friedman for her help with the typing.

## **Table of Contents**

1. Introduc	tion	1
2.1 CG	of the Literature A Clinics around the World A Clinics at Maccabi Healthcare Services	1 1 3
3. Study G	oals	6
<ul> <li>4. Study Design</li> <li>4.1 Study Population</li> <li>4.2 Methods of Data Collection and Study Instruments</li> <li>4.3 Measures and Variables</li> </ul>		
<ul><li>5.2 Cha</li><li>Con</li><li>5.3 Sati</li><li>5.4 Pero</li></ul>	aracteristics of the Patients Assessed anges in the Condition of Patients Assessed (Experimental Group) and apparison with Patients Not Assessed (Control Group) in 2008 sfaction of Patients and their Families with CGA Clinics are ived Burden of Care among Family Caregivers are ived Benefits of CGA among Family Physicians	12 12 18 28 33 34
	ions, Implications for Policy and Recommendations for Decision-Makers	40
Bibliograpl	hy	42
List of	Tables	
Table 1:	Characteristics of the Study Population and the Non-Respondents in the Experimental and Control Groups	9
Table 2:	Characteristics of the Non-Respondents – Average Score of those Examined in Both First and Second Interviews and those Examined in Only the First Interview in the Experimental and Control Groups	10
Table 3:	Characteristics of Family Physicians at Maccabi and in the Study Population	11
Table 4:	Demographic Characteristics of Patients Assessed at CGA Clinics in 2007, by District	13
Table 5:	Geriatric Characteristics of Patients Assessed at CGA Clinics in 2007, by District	14
Table 6:	Geriatric Characteristics of Patients Assessed at CGA Clinics in 2007, by District	16
Table 7:	Utilization of Health Services by Patients Assessed at CGA Clinics in 2007, by District	17

Table 8:	Demographic Characteristics of the Experimental and Control Groups	19
Table 9:	Diagnoses and Health Characteristics of the Experimental and Control Groups	20
Table 10:	Distribution of Geriatric Symptom Scores in the Experimental and Control Groups at Both Stages of the Examination	22
Table 11:	Average Score of Geriatric Symptoms in the Experimental and Control Groups at Both Stages of the Examination	23
Table 12:	Perceived State of Health and Functioning in the Experimental and Control Groups at Both Stages of the Examination	24
Table 13:	Overall Mental and Physical Health-Related Quality of Life Score (SF-12) in the Experimental and Control Groups at Both Stages of the Examination	25
Table 14:	Health-Related Quality of Life (per SF-12) in the Experimental and Control Groups at Both Stages of the Examination	25
Table 15:	Utilization of Health and Social Services in the Experimental and Control Groups at Both Stages of the Examination	26
Table 16:	Satisfaction with Treatment at the CGS Clinics	29
Table 17:	Average Reliability Score for the Scale of Burden on the Families in the Experimental and Control Groups	33
Table 18:	Analysis of the Factors on the Scale Measuring the Areas in which the CGS Clinic Recommendations were Helpful to the Physicians	36
Table 19:	Physicians' Opinions about CGS Clinics, by Physicians' Specialty	38
Table 20:	Physicians' General Satisfaction with the CGS Clinics, by Physicians' Specialty	39
Table 21:	Physicians who Believed it Imperative (vs. Not Imperative or Not at all Imperative) for the CGS Clinics to Make Recommendations for Medical	20
	Care, Tests and Other Treatments Similarly to Other Specialist Clinics	39