



Myers-JDC-Brookdale Institute
Smokler Center for Health Policy Research
Jerusalem



Jewish Healthcare Foundation
Pittsburgh

PRIMARY CARE IN ISRAEL: ACCOMPLISHMENTS AND CHALLENGES



Bruce Rosen
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Prepared at the Request of the Jewish Healthcare Foundation

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This report was prepared within the context of an intensive, multi-staged collaboration between the Myers-JDC-Brookdale Institute in Jerusalem and the Pittsburgh-based Jewish Healthcare Foundation. The goal is to enable policymakers in the US to draw lessons from Israeli health care, and vice versa.

In the first stage of the project, two overview documents that provide useful background to the current report were produced:

- ❖ ***Healthcare in the US and Israel: Comparative Overview***
- ❖ ***Healthcare in Israel for US Audiences***

The former may be purchased from the JHF or the MJB Institute and both can be downloaded from the JHF and MJB websites.

The current phase of the project includes four monographs:

- ❖ ***The Role of the Government in Israel in Containing Costs and Promoting Better Services and Outcomes of Care***
- ❖ ***Primary Care in Israel: Accomplishments and Challenges***
- ❖ ***How Health Plans in Israel Manage the Care Provided by their Physicians***
- ❖ ***The Medical Workforce and Government-Supported Medical Education in Israel***

This paper focuses on the ways in which Israel's health plans have contributed to the development of sophisticated primary care delivery systems. It begins with an overview of the central characteristics of Israeli primary care, highlighting its key strengths as well as the main challenges it currently faces. Next, it describes some of the main ways in which Israeli primary care has improved over the years. It concludes with an analysis of the proximate and underlying factors accounting for the successes of Israeli primary care.

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TABLE OF CONTENTS

Foreword: Karen Wolk Feinstein, PhD, President and CEO, Jewish Healthcare Foundation	1
1. Overview of the Central Characteristics of Israeli Primary Care	2
1.1 Reimbursement Systems and Pay Levels	2
1.2 Workforce Issues	2
1.3 Access: Physical, Virtual and Cultural	3
1.4 High Levels of Service and Clinical Quality	4
2. Key Challenges Facing Israeli Primary Care – 2010	5
3. How Israeli Primary Care Has Improved Over Time	6
4. So, What Accounts for the Successes?	7
References	10
Recommended Further Reading	11
Appendix: Comparisons among the Health Plans	12

LIST OF TABLES

Table 1: Community-Based Physicians Employed by Health Plans	3
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FOREWORD

This monograph is part of a series commissioned by the Jewish Healthcare Foundation to impart information about the Israeli system that may be useful to US health policymakers in their efforts to guide the development of the US healthcare system in ways that insure both the quality of care and the overall financial viability of the system. One fundamental difference between the US and Israeli systems is their relative emphasis on primary care.

These differences become critically important as life expectancy increases and, along with it, the burden of chronic disease. Clinicians in primary care settings are not only responsible for disease prevention and health promotion, but are also tasked with chronic disease management as well. Understanding the characteristics – as well as the evolution – of primary-care delivery in countries such as Israel is a first step in the search for models that may be applied in US settings. This monograph then provides an overview of the central characteristics of Israeli primary-care system, as well as the historical, cultural and economic antecedents of that current system.

Karen Wolk Feinstein, PhD
President and CEO
Jewish Healthcare Foundation

1. OVERVIEW OF THE CENTRAL CHARACTERISTICS OF ISRAELI PRIMARY CARE

In 1995, Israel passed a National Health Insurance (NHI) law that ensures universal access to a comprehensive package of services. Each Israeli resident is free to choose from among four competing nonprofit health plans, and receive primary care services through the plan that he/she chooses (Rosen and Samuel, 2009). The four plans, and their market shares as of 2009, are as follows: Clalit Health Services (53%), Maccabi Healthcare Services (24%), Meuhedet Health Plan (13%), and Leumit Health Services (9%). Table 2 in the appendix provides comparative data on the plans.

In this paper, we focus on aspects of primary care common to the plans, while highlighting essential differences along the way. We first consider the system for remunerating physicians and their pay levels, and then move on to other workforce issues. This is followed by a consideration of access, in its physical, cultural and virtual dimensions. This section concludes with data highlighting the high level of service and clinical quality in Israeli primary care, while the section that follows discusses the main challenges facing Israeli primary care today.

1.1 Remuneration Systems and Pay Levels

The plans vary in the extent to which their primary care services are based on staff v. independent practice association (IPA) models. They also vary in their mechanisms for remunerating primary care physicians, with the key mechanisms being salary, passive capitation, active capitation and some mix thereof. None of the plans makes significant use of fee-for-service payments in primary care.

Interestingly, the large specialist-PCP (primary care physician) pay gap that characterizes the US does not exist in Israel (Nissanholtz and Rosen, forthcoming). For example, in Clalit (the largest HMO), the average PCP earns approximately the same salary as the average hospital-based physician. At the same time, it must be kept in mind that, unlike PCPs, certain types of hospital specialists have opportunities to supplement the salary from their main job, with a high-paying second job (often in community settings).

1.2 Workforce Issues

The vast majority of the PCPs work for only one health plan (Shemesh et al., 2007). Approximately half of them have specialty certification, the most common specialties being family medicine, pediatrics and internal medicine. As of 2008, close to 1,400 working-age Israeli physicians were board certified in family medicine. They constituted just over 5% of all Israeli physicians (and 10% of physicians with some specialty certification) in that age group (Haklai, 2009).

Nurses also play a very important, and growing, role in primary care. The vast majority of nurses working in primary care are RNs. They are increasingly serving as case managers for chronically ill patients and are increasingly involved in patient education/health promotion. Various new laws and regulations have expanded their scope of practice in such areas as hospice care and drug

prescribing. However, the extent to which change is taking place varies greatly among plans¹ and, in all, it falls short of the vision espoused by many nursing and primary care leaders. Moreover, Israel does not recognize nurse practitioners as a profession and there are no plans to do so in the near future.

1.3 Access: Physical, Virtual and Cultural

Primary care is highly accessible geographically, and even small villages tend to have one or more PCPs. As can be seen from the Table 1 below, the availability of PCPs in the north and the south is similar to the national average, whereas the situation is quite different when it comes to community-based specialists (Shemesh et al., 2007). Primary care is also very accessible financially, as there are no co-payments for primary care visits in three of the health plans,² while in the fourth (Maccabi) the co-pay is nominal.

All of the health plans have continuing care/home care units in every region; there are over 100 such units around the country. They work both with patients who need short-term help in the transition from the hospital to the community³ and with patients who are expected to be homebound for longer periods.

Table 1: Community-Based Physicians Employed by Health Plans⁴
(Per 10,000 Population, 2003/2004)

	Primary Care	Specialty Care	Total
North	6.5	4.2	10.7
South	7.2	5.0	12.2
Jerusalem	7.4	7.5	14.9
Center	7.6	8.3	15.9
Haifa	7.1	8.9	16.0
Tel Aviv	5.9	9.0	14.9
Total	7.0	7.2	14.1

All of the plans have essentially universal penetration of electronic medical records (EMRs) in primary care. All these EMR systems facilitate the sharing of information among physicians,

¹ Clalit apparently has the longest history of deploying nurse-physician teams in the management of chronic care. While Clalit had employed nurses in the clinics even in the pre-State period, the nurse-physician teamwork model was introduced in the late 1960s. The original focus was diabetes care, but this has been expanded to other chronic conditions.

² There are co-payments for pharmaceuticals in all the plans. While these do not constitute barriers to care for middle-class people who are essentially healthy, they can be a problem for lower-income persons and persons suffering from multiple chronic illnesses.

³ In Clalit, the nurses responsible for this transition are aided by a unique IT system that bridges patient-level information between hospital and community settings.

⁴ Source: Shemesh et al., 2007

patients,⁵ laboratories and diagnostic centers, with the plans differing with regard to the comprehensiveness and sophistication of their systems⁶For example, Clalit is the only plan with an IT system that can bring together information from hospital and community settings. One of the unique strengths of the Maccabi system is that has been implemented in a system based largely on independent physicians.

All of the health plans operate 24-hour telephone hotlines staffed by experienced RNs. Other major sources of after-hours community-based care include health-plan-operated evening care centers (available in all major cities), independent urgent care centers, and medical home visit services.⁷

Special efforts are made to improve communications between PCPs and various vulnerable groups, most notably new immigrants from Ethiopia. For example, Clalit has made extensive use of cultural facilitators in primary care clinics with high concentrations of Ethiopian immigrants and Maccabi has a pilot program of translation services. Still, much more could be done in all the plans to make services more responsive and accessible to Israel's numerous cultural groups.

1.4 High Levels of Service and Clinical Quality

Recent survey data suggest that the level of service in Israeli primary care system is very high and that most Israelis are very satisfied with the care they receive. In a 2007 national survey (Gross et al., 2009), only 5% of respondents reported having to wait more than three days for an appointment with a PCP and two-thirds of respondents visited the PCP on the same day that they called to arrange an appointment. In that same survey, 63% of the respondents waited for less than 15 minutes before seeing the PCP; 89% of respondents reported being "satisfied" or "very satisfied" with the professionalism of their PCP; and 93% reported being "satisfied" or "very satisfied" with the interpersonal skills and behavior of the PCP.

The clinical quality of Israeli primary care also seems to be at a high level. A recent comparison of clinical quality in US and Israeli primary care found that, despite the much higher level of per-capita spending in the US, the levels of quality in the two countries were quite similar (Rosen et al., 2010).



⁵ For example, Clalit patients can use the Internet to access their personal health records, check lab results, schedule appointments, confer with a pediatrician on-line after regular working hours, etc. Innovative applications in Maccabi include those in which patients can enter data themselves from home, various decision support tools for both patients and physicians, tele-consultation between specialists in urban centers and patients and their family physicians in the rural areas, remote monitoring of CHF patients, and a virtual community through which Maccabi's senior management gets ongoing input from a representative sample of its members.

⁶ Generally speaking, while all the health plans have EMRs for all patients and all plan physicians have access to these EMRs in their offices, the systems in Maccabi and Clalit are more advanced than in the other two plans.

⁷ Several years after the passage of the NHI legislation, the Ministry of Health required the health plans to make available, and finance, physician visits to patients' homes.

2. KEY CHALLENGES FACING ISRAELI PRIMARY CARE – 2010

Even today, not all is as it should be in Israeli primary care. PCPs complain about patient visits being too short (averaging less than 10 minutes), not having enough time to address mental health and health promotion issues, the computer turning into a new barrier between the physician and the patient,⁸ and growing managerial monitoring/interference in their practices. A recent study of the practices of primary care pediatricians indicated that they seldom engage in activities related to "The New Pediatrics" such as ADHD, eating disorders and various behavioral and developmental issues (Porter et al., 2006). Similarly, a recent study of women's healthcare involving both patient and physician surveys found insufficient attention to widespread women's health problems.

Another challenge is that some family physician residency positions are difficult to fill, particularly in Clalit. In part, this is because Clalit is facing increasing competition from parallel programs in other health plans. Moreover, some of the leaders of the family medicine movement feel that family physicians in general continue to suffer from lesser prestige in comparison with hospital-based specialists.

Moreover, looking to the future, it may become more difficult to attract physicians to primary care. As of 2008, more than half of working-age physicians in Israel were born abroad; over 60% studied in medical schools in other countries (Haklai, 2009). With the massive immigration from the former Soviet Union (FSU) having run its course, there are fewer physicians moving to Israel. Israel is preparing itself to rely more heavily on Israeli-trained physicians than in the past. Israeli-trained physicians are more likely to opt for primary care than they were in the 1970s, due to a variety of factors discussed below, including the Family Medicine movement and an upgrading of clinic facilities. Still, most of them continue to prefer careers in hospitals or as community-based specialists. As of 2003, Israeli-trained physicians accounted for 46% of community-based specialists compared to only 28% of PCPs (Shemesh et al., 2007). In the hospitals, Israeli-trained physicians are believed to account for over half of the physicians, but there are no hard data on this.

There are also important challenges related to continuity of care. The staffing levels in the continuing-care/home-care units are not sufficient to meet the growing needs. Communications between hospital-based physicians and their counterparts in the community leave much room for improvement (though advances in Health IT are beginning to help address this issue), as do communications between PCPs and government-run well-baby clinics (Rosen and Kanel, 2010). Similarly, communications between the health sector and the related educational and social services sectors are inadequate.



⁸ This assertion is disputed by various health plan executives.

3. HOW ISRAELI PRIMARY CARE HAS IMPROVED OVER TIME

In light of the challenges facing the system as of 2010, it is important to recall that Israeli primary care has improved substantially over time. Familiarity with this record of self-improvement might help policymakers and primary care advocates in Israel avoid frustration with existing problems and help energize the system to address them.

In the first few decades of Israel's existence, primary care clinics tended to be poorly run, understaffed, and characterized by long waits leading to disputes among patients as to whose turn was next. In some areas, the facilities themselves were run-down (Doron and Shvarts, 2004). The clinics were run by non-physician administrators, many of whom owed their jobs more to political connections than to academic training or managerial capabilities.

Partly as a result of this situation, very few new graduates of Israeli medical schools opted for primary care, preferring instead more glamorous careers as specialists – usually in hospital settings. Consequently, primary care clinics, particularly in the periphery, tended to be staffed primarily by new immigrants. While many of these new immigrants had reasonable-to-good technical skills, the care that they provided was often hampered by language and cultural disconnects with their patients.

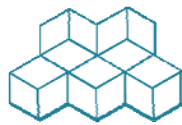
The transformation was brought about through the agglomeration of a number of factors. First, in the 1980s the health plan market began to heat up, with Maccabi and Meuhedet growing at the expense of Clalit. This forced Clalit, the largest plan, to spruce up its clinics, employ better-trained managers and improve the patient flow, in order both to improve service to patients and to improve physician satisfaction and retention. In addition, starting in the 1970s, the family medicine (FM) movement began to take root in Israel, and the creation of FM residency programs began to draw more Israeli-educated physicians into primary care. For quite a few years now, approximately 10% of Israeli medical school graduates have been opting for residencies in family medicine. This, in turn, has improved the levels of care, and the status, of the primary care clinics, encouraging more board-certified pediatricians and internists to work in primary care. Initially, only Clalit had an FM residency program; now all the health plans have such programs.

Another important change taking place over time in Clalit is the easing of the PCPs' gatekeeping role, a role that had existed for decades. Historically, all members wanting to see a specialist had to get a referral from a PCP (Tabenkin et al., 2001). Due to a growth in members' demands for free access to specialists combined with growing competition from other plans, in the mid-1990s the gatekeeping role was limited to access to those specialties that tend to be needed less frequently but are also more expensive. In recent years, access to even these specialties is being made freer. At the same time, the PCP is retaining a role in integrating the care of the patient, and many patients voluntarily seek out guidance from PCPs before turning to specialists.

Clalit also uses EMR-based clinical, sociodemographic and economic data to generate a unique predictive score that help it identify the members of the elder age group that are at the

highest risk for health deterioration. Once identified, physicians involve these patients in proactive evaluation and customized treatment plans to prevent health deterioration. Similar plans are in now in process for patients of all ages with specific chronic illnesses at risk of deterioration.

Another important transition is currently underway – this time in Maccabi – which is based primarily on independent physicians. Traditionally, primary care services in Maccabi were provided by a solo practitioner and care was primarily reactive. Maccabi recognized that with the growing need to address chronic disease in a proactive fashion, a major system redesign was needed. In 2004, it launched a pilot program in which care is led by a physician-nurse dyad responsible for proactive prevention, life style counseling, treatment and regular follow up of patients (Wilf-Meron et al., 2007).



4. SO, WHAT ACCOUNTS FOR THE SUCCESSSES?

While primary care in Israel continues to face important challenges, this should not obscure the success of the venture overall. To what, then, should we attribute this success? In addressing this issue, we need to distinguish between immediate causes and more fundamental causes.

Among the immediate causes, we clearly need to include the lack of a wage gap between PCPs and specialists. This clearly is important in attracting and retaining high-quality physicians in primary care.

Another important immediate cause is the reliance on remuneration systems other than fee-for-service (FFS). This avoids, or at least reduces, financial incentives for overuse of services.

Similarly, the near-universal use of sophisticated EMRs no doubt contributes directly to both quality of care and cost containment. Likewise, the fact that most physicians work for only one health plan surely contributes to the ability to develop consistency between physician and health plan goals.

Yet these are all immediate causes. To what can we attribute the wage parity with specialists, the avoidance of FFS, the EMRs and the one plan per physician norm?

Opinions on this may differ, but my own reading of the situation is that most of the important underlying factors have to do with the history and nature of the Israeli health plans. All of them pre-date the founding of the State of Israel by several decades, and pre-date the introduction of NHI by even longer. Way before the NHI Law was enacted, they were already creating many of the norms and much of the infrastructure that continue to guide primary care to this day.

Take, for example, the broad geographic distribution of PCPs. This did not happen simply because individual physicians sought out places in which they could earn a living and market forces took them to the periphery (Doron and Shvarts, 2004). Rather, the health plans – particularly Clalit and Leumit – actively recruited physicians to work there for a variety of reasons. In part, they sought to meet the healthcare needs of their members, wherever they had chosen to live. In part, they sought to contribute to the Zionist enterprise of settling the land; health and other services were set up in outlying areas partly to encourage pioneers to move to those areas. In addition, the health plans were affiliated with political parties in search of voters; the votes of residents of the periphery, the elderly and the poor counted as much as young middle-class people in the Tel Aviv area.

Thus, in comparison to individual physicians, the health plans brought to the nascent health system a broader set of objectives and a broader system perspective. They also brought to the endeavor organizational and technical capacities well beyond those of the individual physician.

In many other countries around the world, the individual physician pre-dated the creation of organized care systems; those systems had to mould themselves around existing, individual-oriented practice norms. In Israel, in contrast, the organized systems of care were there "from the beginning" and could mould the delivery systems, and to some extent even individual physicians, in accordance with their broader vision.

It was this broader vision that led to broad geographic dispersion of PCPs through such mechanisms as building clinics in the periphery and directing immigrant physicians to work in them. Similarly, the reliance on non-FFS payment mechanisms emerged from a recognition that costs need to be controlled, along with a Socialist worldview (at least in Clalit) that saw physicians as not-so-different from other salaried workers (Yishai, 1992).⁹ The early introduction of EMR and its subsequent development can be attributed to the health plans' recognition of the need to contain costs, their economies of scale in developing EMRs, and to Israeli society's more general fascination with technology.

The wage parity between hospital and community physicians probably has a number of sources. In part, it may be due to the heavy reliance on non-FFS reimbursement systems; after all it is FFS that leads to such high incomes of surgeons in the US and several other countries.

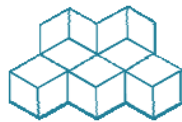
Another factor may be that, to a large extent, hospital services and community services in Israel developed separately. Until recently, three of the health plans did not own any hospitals. Historically, most of the hospitals were owned by the Ministry of Health, which did not operate community services. While it is true that Clalit operated both hospital and community services, its heart was clearly more closely linked to the latter. All of the plans had an interest in making sure that their wage levels were such that they could compete with the hospitals for good physicians.

⁹ Ironically, with regard to hospital physicians, an additional factor was the influence of leading physicians who visited Israel from the US, who were concerned about the link between FFS and out-of-pocket financing (Shvarts et al., 1999).

Moreover, in keeping with the European approach, hospitals and community clinics were generally staffed by separate cadres of physicians.¹⁰ The Israel Medical Association, which represents the physicians in the collective bargaining negotiations, comprises a division of hospital physicians and a parallel division of community physicians, each of which keeps a constant eye on the relative incomes of the two groups.

The earlier development of quality monitoring systems in the health plans as opposed to the hospitals probably also has a number of roots. In part, the situation evolved this way because in Israel community EMRs are more sophisticated than hospital EMRs (the opposite from the situation in the US). A strong community EMR infrastructure makes it much easier to do quality monitoring. Another factor may be that, in Israel, health plans are more accustomed to competition and accountability to the public than are hospitals.¹¹ Finally, it may be that hospital department heads are more powerful (and perhaps less open to criticism) than clinic directors, and are hence more resistant to systems to monitor their performance.

Yet another feature of the health plans that has contributed greatly to the success of primary care in Israel has been their ability to work effectively with their physicians. This has been discussed at great length in a companion memo.



¹⁰ At the same time, some Clalit physicians have agreements with the health plan in which their time is split between Clalit hospitals and Clalit clinics. In addition, increasingly Maccabi and Meuhedet community-based specialty slots are staffed by physicians whose primary appointment is in a hospital.

¹¹ Need to add information about the timing of and the rationale for EMR investments across the plans? How much did inter-plan competition play a role? Was cost containment a goal?

REFERENCES

- Doron, H. and Shvarts, S. 2004. **Medicine in the Community**. Ben-Gurion University of the Negev Press. Beer-Sheva.
- Gross, R.; Greenstein, M.; Brammli-Greenberg, S. and Tabenkin, H. 1999. "Primary Care Physicians in Israel 1997: Characteristics and Changes in an Era of Reform." **Social Security**. 54:169-90 (Hebrew).
- Haklai, Z. 2009. **The Healthcare Professional Workforce, 2008**. Ministry of Health. Jerusalem. (Hebrew)
- Nissanholtz, R. and Rosen, B. Forthcoming. **An Overview of Medical Education and the Medical Workforce in Israel**. Myers-JDC-Brookdale Institute. Jerusalem.
- Porter, B.; Oren, K.; Reichman, B.; Horev, Z.; Katz, M. and Shoham-Vardy, I. 2006. "Community Pediatrics in Israel: Reality and Expectations." In: **Research Summary**, Israel Center for Health Services Research.
- Rosen, B.; Porath, A.; Pawlson, L.G.; Chassin, M.R. and Benbassat, J. Forthcoming. "Adherence to Standards of Care by Health Maintenance Organizations in Israel and the United States." **International Journal of Quality in Healthcare**
- Rosen B. and Kanel, K. 2010. **Healthcare in the US and Israel – Comparative Overview**. Myers-JDC-Brookdale Institute and Jewish Healthcare Foundation. Jerusalem and Pittsburgh.
- Rosen, B. and Samuel, H. 2009. **Israel: Health System Review. Health Systems in Transition**. European Observatory of Health Systems and Policies. Copenhagen.
- Shemesh, A.; Smetannikov, E.; Dor, M.; Sherf, M.; Shalev, V.; Rosenblum, Y. and Metz, E. 2007. **Physicians in the Community: Sociodemographic and Professional Characteristics**. Ministry of Health. Jerusalem. (Hebrew)
- Shvarts, S.; de Leeuw, D.; Granit, S. and Benbassat, J. 1999. "From Socialist Principles to Motorcycle Maintenance: The Origin and the Development of the Salaried Physicians Model in Israeli Public Health Services." **American Journal of Public Health** 28(2):248-253.
- Tabenkin, H.; Gross, R.; Greenberg, S.B.; Steinmetz, D. and Elhayany, A. 2001. "Primary Care Physicians in Israel: Self-perception of their Role in the Healthcare System and Policy Makers' and Patients' Perception of them as Gatekeepers." **Israel Medical Association Journal** 3(12):893-7.
- Wilf-Miron, R.; Kokia, E. and Gross, R. 2007 "Redesigning Primary Care Services in Maccabi." **Health Policy Monitor** September 2007. Available at <http://www.hpm.org/survey/is/a10/3>.
- Yishai, Y. 1992. "Physicians and the State in the USA and Israel." **Social Science and Medicine** 34 (2):129-139.

RECOMMENDED FURTHER READING

Anderson, G.F. and Antebi, S. 1991. "A Surplus of Physicians in Israel: Any Lessons for the United States and Other Industrialized Countries?" **Health Policy** 17 (1): 77-86.

Rosen, R. and Nissanholtz, R. Forthcoming. "From Quality Information to Quality Improvement: An Exploratory Study of Health Plan Actions." In Rosen, B.; Israeli, A. and Shortell, S. (Eds.). **Responsibility and Accountability in Health Care**. Tel Hashomer: National Institute for Health Policy and Health Services Research.

Rosen, B. "Addressing a Projected Shortage of Physicians." **Health Policy Monitor**, March 2008. Available at <http://www.hpm.org/survey/is/a11/5>

Reis, S.; Goldfracht, M.; Tamir, A.; Van Raalte, R.; Spenser, T. and Hermoni, D. 2001. "Trends in Medical Specialty Choice among Israeli Medical Graduates, 1980-1995." **IMAJ** 3:973-977.

Shuval, J.T. 1992. **Social Dimensions of Health: The Israeli Experience**. Praeger Publishers. Westport, CT

Shuval, J.T. 1990. "Medical Manpower in Israel: Political Processes and Constraints." **Health Policy** 15(2-3):189-214.

APPENDIX: COMPARISONS AMONG THE HEALTH PLANS

	CLALIT	LEUMIT	MACCABI	MEUHEDET
Market share	53	9	24	13
% Elderly (65+)	13	8	7	6
% Young (0-14)	26	31	30	35
% New immigrants (since 1990)	9	16	20	16
Average monthly income	6,695	6,105	8,759	7,305
% Recipients of NII income support	62	11	18	9
% With supplemental insurance*	81 / 71	65 / 67	88 / 88	73 / 69
Main primary care MD status	Mostly salaried	Mixed	Mostly independent	Mostly independent
% Of acute beds owned by plan**	30	0	2	0
Original owner	Histadrut	Nationalist Histadrut	Independent	Independent
Strongest areas/groups	Arabs, elderly, low income	Judea & Samaria	Tel Aviv area; young***	Jerusalem; Haredim; young
Sophistication of info systems	Very	Catching up	Very	Moderately

* First figure based on survey data; second on administrative data.

** Other acute beds are owned by the government, religious institutions, independent non-profit organizations, and for profit organizations

*** Maccabi also invests a lot of money and managerial effort in services for their elderly members; well beyond the percent of the elderly in the plan