Has Israel damaged Palestinian health?

An evidence-based analysis of the nature and impact of Israeli public health policies practices in the West Bank and Gaza

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The incendiary claim that Israel has deliberately damaged the health of the Palestinians of the West Bank and Gaza Strip is not evidence-based, argues Dr. David Stone. In fact, the opposite is true: the health of the Palestinians has improved steadily since 1967. Stone maps a cluster of changes – in demography, crude death rates, life expectancy, infant mortality, as well as maternal, perinatal, under-five mortality, immunisation coverage, nutrition and infant growth patterns, primary and secondary health care, and the Israeli influence on 'the causes of the causes' of ill health (housing, water, education, employment) – to show that Israeli policies have brought about measurable improvements in Palestinian health and welfare. This was achieved, in the face of formidable obstacles, by a variety of means including an outstanding child immunization programme, the launching of need-responsive innovations in primary care (crucially including maternal and child health services), a large hospital development programme, collaborative modes of working with Palestinian professionals, UNRWA and NGOs, and – arguably even more important – providing high quality training for doctors, nurses and other health providers in Israeli institutions thereby bringing modern standards to anaesthesia, renal dialysis, cardiac surgery and many other critically important fields.

PART 1: THE CHARGE SHEET

Regardless of the outcome of any negotiations to achieve an equitable and lasting solution to the Arab-Israeli conflict, a relatively unnoticed aspect of recent history is the growing chorus of criticism directed at Israel's policies relating to the health of the Palestinians.

With growing stridency, a number of commentators have expressed outrage at Israeli policies that they claim have inflicted decades of avoidable misery, disability and death on the Palestinian people, particularly those living in the West Bank and Gaza (WB/G) under Israeli administration following the war of June 1967. While many factors – including military conflict – are acknowledged to have played a role in contributing to relatively poor Palestinian health, the underlying cause is widely cited as the Israeli occupation and its concomitant, ongoing manifestations of 'humiliation,' 'economic siege,' and 'collective punishment.'

A recurrent assertion is that Israel deliberately impeded or neglected the healthcare system, basic infrastructure and economic development during the period of its administration of WB/G between 1967 and 1994. Among the claimed adverse effects of these (alleged) policies are counted the substantial and widening gaps between the health of Israelis (or at least Israeli Jews) and Palestinians living in WB/G during and even beyond the period of Israeli rule. In recent years, this narrative, once virtually confined to Palestinian and Arab sources, has been endorsed, reiterated and elaborated by several respected international UK-based medical journals, most notably *The Lancet*.

Here is just a small sample of the accusations:

> Between 1967 and 1993, health services for Palestinians in the occupied Palestinian territory were neglected and starved of funds by the Israeli military administration, with shortages of staff, hospital beds, medications, and essential and specialised services, forcing Palestinians to depend on health services in Israel. (Rita Giacaman et al, *Lancet* 2009.)
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> The people of the Palestinian territory matter, most importantly, because their lives and communities are continuing to experience an occupation that has produced chronic de-development for nearly 4 million people over many decades. (Richard Horton, *Lancet*, 2009.)
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> Following the June war of 1967, Israel was required by international law to assume responsibility for health services in the newly occupied West Bank and Gaza. Between then and 1993, health services in the occupied Palestinian territory were starved of funds and there were shortages of staff, hospital beds, medication and essential specialised services, while responsibility for healthcare passed from the Israeli Ministry of Health to the military government and then to the Israeli Civil Administration, under the Ministry of Defence. During that time, Israel aimed only to maintain standards of public health and did not attempt to build services beyond primary care. (Aimee Shalan, *Spectator*, 2013.)

I seek here to examine the allegations of Gordon[1], Giacaman[2], Horton[3], Shalan[4] and others, that Israel has, through either neglect or intention – in contravention of international law – damaged Palestinian health in WB/G by failing to support or develop an adequate healthcare (including public health) system, and wilfully stifled the social and economic development of the areas that came under its control following the war of 1967.

I address two main questions. First, were Israeli policies and practices associated with the occupation (as opposed to the military aspects of the conflict) since 1967 (and particularly during 1967-94) deliberately designed to bring about the degradation of health services, along with the wider economic and environmental infrastructure of WB/G? Second, did these Israeli policies and practices impact negatively on the health of the Palestinian population residing in those areas? A third question is a corollary to the first two: Is there any evidence of a positive Israeli contribution to Palestinian health and welfare during the period of the Israeli administration in 1967-94 until transfer of responsibility for health to the Palestinian Authority (PA) in 1994?[5]

PART 2: THE EVIDENCE

Demography

In 1967, the populations of WB/G were 767,300 and 493,700 respectively – 1,261,000 in total. By 2010, these numbers had reportedly more than trebled to 4,547, 431.[6] (According to Zimmerman et al 2006, population estimates for 2004 may have been inflated by as much as 50 per cent.[7]) The increase was mainly due to a high birth rate combined with a rapidly decreasing death rate, especially among children, and a consequent rise in life expectancy. Some of the population increase is attributable to net inward migration by Palestinians returning from the Gulf States and other parts of the Middle East. Israel's population in 1967 was 2,776,30 and also almost trebled to 8,134,100 by 2013 (according to the Israeli Central Bureau of Statistics), the result of a combination of immigration (the main factor), a relatively high birth rate, and a decreasing death rate.

Crude death rates

Crude death rates are highly sensitive to the age structure of the population. In WB/G, they were lower than in Israel (4 and 5 per 1000 population respectively, as estimated by the World Bank[8] for 2011), due to a higher percentage of young people in the population in the former, combined with to low rates of child deaths and communicable diseases. The major causes of death in both WB/G and Israel were increasingly non-communicable diseases, reflecting the 'epidemiological transition' that both communities have been undergoing over many decades. This phenomenon is characterised by a shift in the pattern of disease away from one dominated by infections and malnutrition to one in which chronic illness (including cancer, cardiovascular disease and diabetes) assumes greater importance.

Life expectancy at birth

Life expectancy (LE) at birth is the number of years a member of the population can be

expected, on average, to live. It is a statistical summary of the mortality experience of the population across the life span. LE is considered a good summative indicator of public health (broadly defined) as it reflects multiple influences on population health status, especially economic circumstances, educational and social equality, and access to health care.[9]

Israel's LE at birth was estimated in early 2014 at 81 years, giving it a ranking of 19th out of 222 [Table 1]. The figures for WB/G are 76 and 75 years respectively, behind Israel but ahead of Jordan and Egypt (who controlled WB/G respectively from 1948 to 1967), and, of course, Syria, as well as several other countries in the Middle East.

Table 1. Life expectancy (years) at birth (2014 estimates), CIA country comparison, selected countries' rankings out of 223

Rank	Country	Life Expectancy
3	Japan	84
19	**Israel**	**81**
29	United Kingdom	80
42	US	80
69	Lebanon	77
70	United Arab Emirates	77
78	Morocco	77
86	Libya	76
91	**West Bank**	**76**
92	Tunisia	76
103	Oman	75
107	Saudi Arabia	75
109	**Gaza Strip**	**75**
117	Jordan	74
122	Egypt	73
124	Turkey	73
146	Iraq	71
148	Iran	71
151	Russia	70
161	Syria	68
175	Yemen	65
222	South Africa	50

Source: Central Intelligence Agency World Fact Book 2014.

Although accurate historical data were hard to obtain, some trends in LE are discernible. LE at birth in Israel rose 13 per cent from 72 in 1967 to 81 in 2014. The increase in WB/G was much steeper (56 per cent over the same time period, to 75) than that of Israel albeit from a very low baseline (48 years). LE at birth is highly sensitive to deaths in childhood, especially infant mortality.

Infant mortality

Infant mortality refers to the death of children under one year of age. The infant mortality rate (IMR) has long been regarded as a useful proxy measure for the general health status of a population, especially in developing countries, and tends to be inversely related to the stage of a society's economic development. Rutstein, in attempting to explain IMR trends in developing countries, identified five groups of key influences: fertility behaviour, nutritional status, use of health services by mothers and children, environmental health conditions, and socio-economic status.[10]

Using the same data source as in Table 1, Table 2 shows the most recently estimated IMRs for Israel, WB/G, and elsewhere. Israel was ranked 26, above the UK and US. The rankings of WB/G were 108 and 120 respectively, well below Israel but above Jordan, Syria and Egypt, and several other Middle Eastern states.

Table 2. Infant mortality rate per 1000 live births (2014 estimates), CIA country comparison, selected countries' rankings out of 224

Rank	Country	Infant mortality rate
2	Japan	2.1
26	**Israel**	**4.0**
36	United Kingdom	4.4
51	Morocco	24.5
56	US	6.2
65	Russia	7.1
70	Lebanon	8.0
99	Libya	11.9
108	**West Bank**	**13.5**
113	Oman	14.00
115	Saudi Arabia	14.6
120	**Gaza Strip**	**15.5**
121	Jordan	15.7
122	Syria	15.8
141	Turkey	21.4
145	Egypt	22.4
147	Tunisia	23.2
163	Iraq	37.5
170	Iran	39.0
174	South Africa	41.6

Source: Central Intelligence Agency World Fact Book 2014.

Obtaining data to analyse time trends in all the relevant countries was difficult but it is clear that IMRs declined steeply in many populations – including Israel and WB/G – in recent

decades. The percentage decreases in IMRs in selected countries of the region between the 1950s and 1980s is shown in Table 3.

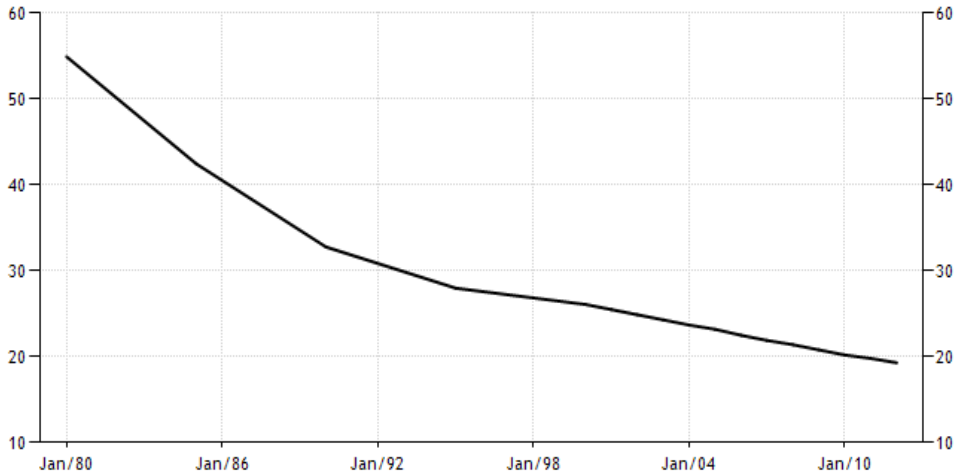
Table 3. Decreases in infant mortality rates (per 1000 live births) between 1950-55 and 1985-90

Country	IMR 1950-55	IMR 1985-90	% Decrease
Israel	39	5	87
Palestine (WB/Gaza)	158	25	84
Jordan	147	22	85
Syria	141	18	87
Lebanon	68	14	79
Saudi Arabia	202	18	91
Turkey	218	25	89

Source: UNICEF. State of the World's Children 2012.

All these countries experienced precipitate reductions in infant mortality over that period, a consequence of the epidemiological transition that, in turn, reflects sustained economic development. Figure 1 shows the steeper decline in infant mortality rates in WB/G during the period of Israeli administration compared to that of the PA (after 1994).

Figure 1. Infant mortality 1980-2010, West Bank and Gaza, rates/1000 live births



Source: World Bank Indicators cited by Trading Economics

Other mortality indicators: maternal, perinatal, under-five mortality

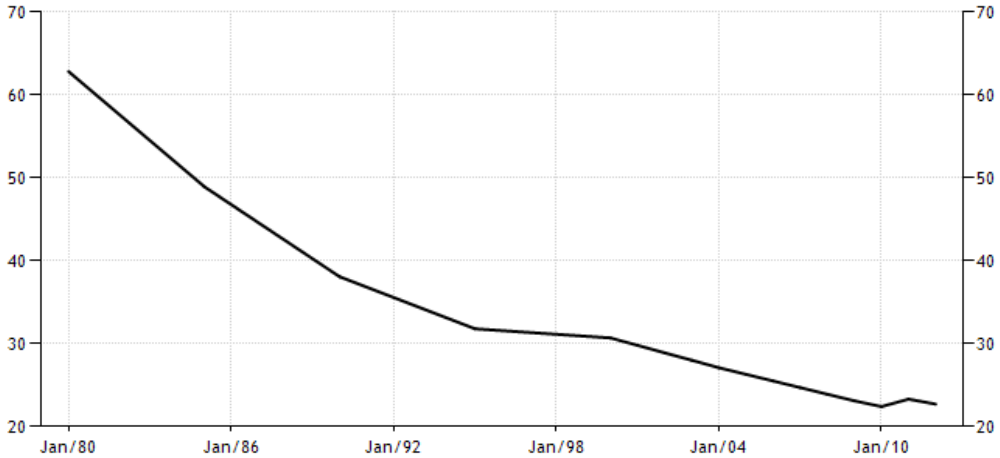
As with infant mortality, other indicators of mortality are influenced by a wide range of factors – biological, social and environmental – in addition to healthcare access. Maternal mortality (deaths during childbirth) and perinatal mortality rates (stillbirths plus first week deaths) are, however, especially reflective of the safe provision of maternity care.

Riccardo and colleagues in a study of Palestinian refugees (and their descendants) under the care of United Nations Relief and Works Agency (UNRWA), which provides primary but not in hospital maternal or neonatal care, reported that maternal and perinatal mortality rates in WB/G were 'no worse than in UNRWA's other fields of operations' (in Syria, Lebanon and Jordan), and that maternal mortality had been consistently higher in Lebanon and Syria than in WB/G for the past 20 years.[11] Nevertheless, maternal mortality remained high at 64 per 100,000 live births in 2010 in WB/G, similar to the rates in Jordan (63 per 100,000) and Egypt (66 per 100,000) but much higher than that of Israel (7 per 100,000).[12]

The under-five mortality rate is the probability (per 1,000) that a newborn baby will die before reaching age five, if subject to current age-specific mortality rates. Under-five mortality, like infant mortality, steeply declined in WB/G, Israel and most other countries of the Middle East over recent decades reflecting improvements in child nutrition, access to healthcare (including oral rehydration solutions for diarrhoea) and environmental conditions such as cleaner drinking water and more efficient sewage systems.

Figure 2 shows the under-five mortality in WB/G from 1980 to 2010. Note that the slope of the decline is steeper during years of Israeli responsibility (up to mid-90s) than thereafter, and that the rates may have started to plateau in 2010.

Figure 2. Under-five mortality 1980-2010, West Bank and Gaza, rates/1000



Source: World Bank Indicators cited by Trading Economics

Immunisation Coverage

Other than ensuring decent sanitation and access to uncontaminated drinking water, immunisation is the most powerful public health measure available to protect children against a range of potentially lethal infectious diseases.

According to UNICEF, 'The State of Palestine' (including East Jerusalem) enjoyed consistently high immunisation coverage for diphtheria (3 doses), poliomyelitis (3 doses), measles, hepatitis B (HepB) and Haemophilus influenzae B (Hib3 – 3 doses) (Table 4).[13] The reported rates for 2012 are comparable to those of Jordan, and consistently higher than those of Egypt, Lebanon, Syria and even Israel.

Table 4. Immunisation coverage (%) of children, selected countries, 2012

Country	DPT3	Polio3	Measles	HepB	Hib3
State of Palestine	97	98	98	99	99
Israel	94	95	96	97	93
Jordan	98	98	98	98	98
Egypt	93	93	93	93	-
Lebanon	82	77	80	84	82
Syria	45	52	61	43	45

Source: UNICEF 2014.

The case of poliomyelitis (polio) is particularly instructive.[14] In the 1970s, polio epidemics were not unusual in the Palestinian territories. As a result of an intensive immunisation programme with two types of polio vaccine launched by the Israeli Ministry of Health in 1978, the disease virtually disappeared within a year. Thereafter, Israel ensured high rates of protection among Palestinian children with coverage regularly reaching 99 per cent (with typical Israeli coverage being around 94 per cent). In 1988, a cooperative early warning system was established based on routine sewage monitoring for Israel and WB/G with samples tested at the Israeli Ministry of Health Central Virus Laboratory. These measures bore fruit: the last reported case of polio was in 1988 in Israel and in 1992 in WB/G.

There was, however, a 'near miss' in 2013 when wild polio virus (WPV) was found in sewage in southern Israel and spread to other parts of the country, while only a few samples of WB/G sewage showed WPV. This was attributed to the higher level of protection afforded by the combined oral (OPV) and inactivated (IPV) polio immunisation program launched in

the WB/G in 1978 that continues to the present time. By contrast, Israel adopted an IPV-only policy in 2005 leaving an opening for the introduction and circulation of wild poliovirus, although no clinical cases occurred.

A similarly impressive record was achieved with regards to other infectious diseases, including measles, which was actually eradicated earlier in WB/G than in Israel.[15] Indeed many of the effective innovations introduced by Israel to WB/G were subsequently implemented in Israel and neighbouring Arab countries. A key factor in achieving exceptionally high immunisation rates was the use of maternal and child health centres, backed up by specially designated village health rooms (first piloted in the Hebron district) to deliver the service.[16] A second was the close coordination of government service providers with UNRWA personnel.

Table 5 compares WB/G with Israel, Jordan and Egypt for four of the key public health indicators above: life expectancy at birth, infant mortality, immunisation coverage and maternal mortality. Jordan and Egypt are important comparators as they were administratively responsible for WB/G respectively prior to 1967. Note that WB/G ranks second only to Israel for life expectancy, infant mortality and DPT (a class of combination vaccines against three infectious diseases in humans: diphtheria, pertussis, and tetanus) vaccine coverage, and ranks top for measles and Hepatitis B immunisation coverage. Maternal mortality is much higher than Israel's though similar to those of Jordan and Egypt.

Table 5. Summary statistics for 4 key public health indicators: Israel, West Bank/Gaza, Jordan and Egypt

Indicator	Israel	WB/G	Jordan	Egypt
Life expectancy (at birth), 2014	81yrs	76/75yrs	74yrs	73yrs
Infant mortality rate (per 1000 births), 2014	4.0	13.5/15.5	15.7	22.4
Immunisation rates, 2012				
Dip/Per/Tet 3	*94%*	*97%*	*98%*	*93%*
Polio 3	*95%*	*98%*	*98%*	*93%*
Measles	*96%*	*98%*	*98%*	*93%*
Hep B	*97%*	*99%*	*98%*	*93%*
Maternal mortality rate (per 100,000 births), 2010	7	64	63	66

Nutrition

The level of nutrition of a population is a key determinant of its overall health status. Food safety nutritional deficiencies and infant growth patterns in children were a particular focus of

concern for the Israeli administration.[17] In 1986, for example, the following measures were instituted:[18]

- special training of staff in nutritional issues
- introduction of routine growth monitoring and standards
- improved screening for and management of infants who failed to thrive, and a voluntary agency nutrition education service
- teaching new mothers about breastfeeding and good supplementation practices
- routine provision of vitamins A and D and iron in accordance with international recommendations.

Many of these activities were continued after the Israeli withdrawal from the West Bank in 1994 while others (such as the routine nutrient supplementation) were abandoned by the PA.

Nutritional surveillance of infants and young children, using standard growth charts, was implemented as part of routine primary care in WB/G and delivered, where necessary, via innovative outreach programmes such as village health rooms. This enabled, from anthropometric measurements, three population indicators to be derived: stunting (chronic undernutrition), wasting (acute undernutrition) and being underweight (general undernutrition). Table 6 shows the prevalence of these indicators in the Palestinian territories compared to selected reference countries, including neighbouring Lebanon, Jordan and Saudi Arabia. Comparable Israeli data were unavailable.

Table 6. Nutritional status of children, selected countries in 2007 or most recent year available

Nutritional status	Palestine	Jordan	Lebanon	S Arabia	Morocco
% Moderate/ severe underweight	3	4	4	14	7
% Moderate/ severe wasting	1	2	5	11	1
% Moderate/ severe stunting	11	9	11	20	12

Source: UNICEF. The State of the World's Children, 2012.

The frequency of stunting in Palestinian children was slightly higher than the reference countries. For the other two indicators, the frequency was lower. Several other indicators, such as low birth weight (that is widely believed to reflect intra-uterine nutrition during

pregnancy), nutrient supplementation, and breastfeeding prevalence, display a similar pattern of relatively favourable and often improving Palestinian nutritional status over time. Taken together, these data suggest that the nutritional status of Palestinian children has been similar to or slightly better than that of children in the reference countries. Clearly, this overview of nutritional status does not take account of intermittent periods of serious food shortage at times of serious military conflict or other emergencies.

Health care

Both primary (community-based) and secondary (hospital-based) health care, including staff training programmes, developed rapidly across WB/G after 1967.[19] In addition, advanced Israeli tertiary care was made available when the need arose, even during periods of open military conflict and severe political tension. To this day, thousands of Palestinian patients are treated in Israeli hospitals – in 2012, for example, over 100,000 sick Palestinian patients, with a similar number of escorts, entered Israel from the West Bank.[20]

Primary care was provided across the territories through a network of government clinics and mother and child centres, along with clinics run by UNRWA and NGOs, plus the innovative village health initiative (pioneered by Israelis and Palestinians working together in Hebron, as mentioned earlier) that brought on-site primary care services to about 90 small villages that had been previously underserved. This was so successful that it was later expanded by the PA to provide excellent primary, preventive care to the many small villages across the West Bank.

Health planners adopted maternal and child health as a priority with particular focus on prenatal care, hospital deliveries, screening and surveillance, and immunisation. Oral rehydration campaigns reduced morbidity, hospital admissions, and mortality from diarrhoeal diseases in childhood. The needs of adults were far from ignored: special programmes were established to serve high-risk groups such as the disabled, the mentally ill, prisoners, and Bedouin, that had been previously neglected.

An ambitious hospital development programme resulted in several new units (e.g. at Ramallah, Hebron, Beit Jallah, Nablus and Gaza) being built or existing hospitals being greatly enlarged. Regional hospitals were upgraded and expanded, their equipment improved, and numerous specialty services (including dialysis, oncology and open heart surgery) added. Emergency care was improved through the upgrading of emergency rooms, staffing and laboratory facilities. Mental health services were expanded and modernised, with a strong emphasis on community-based or outpatient care. Funding for these projects came largely from the Israeli government though important assistance and contributions were also received from other sources including the United Nations Development Programme and the Arab Medical Welfare Association.

Numerous training programmes for doctors, nurses, ambulance personnel and other workers were launched in conjunction with Israeli institutions to staff these burgeoning community and hospital services. Later, local Palestinian programmes were developed in conjunction with newly established further and higher education institutes, including the five universities that were created in WB/G after 1967.

Broader influences on health

At least as important for population health as healthcare are a society's infrastructure and wider general social and economic conditions – what Marmot has called 'the causes of the causes' of ill health. [21] That reality was recognised, rather ahead of its time, by the Civil Administration's public health planners. Much attention was paid to promoting rapid improvements in the housing quality, water purity, educational opportunities and levels of employment.

Housing

A construction boom occurred in the 1970s and 1980s and new housing was required to be serviced by electrification, water and waste disposal systems – all crucial to promoting public health. Safe chlorinated water (see below) was brought by pipes to the vast majority of the urban and rural population of WB/G during the period of Israeli administration. Table 7 shows the prevalence of running water and electricity in homes in the Palestinian territories in the early 1970s and two decades later. The transformation is striking: whereas only a small minority of homes had those facilities when Israel took control, by 1992 the vast majority had acquired them.

Table 7. Running water and electricity in homes

a) Running water

	1972-75	**1992**
West Bank	24%	79%
Gaza	14%	93%

b) Electricity

West Bank	8%	96%
Gaza	35%	98%

Source: Central Bureau of Statistics, Statistical Abstract of Israel, 1995

Water

Water management has become deeply politicised by Israel's detractors in an attempt to depict water shortages in WB/Gaza as a consequence of 'discriminatory occupation policies'. In fact, water was covered in detail by the Oslo Accords the terms of which Israel has scrupulously fulfilled. In a major study conducted by the Hebrew University of Jerusalem's Institute of Earth Studies, Gvirtzman pointed out the Palestinians were wasting tremendous amounts of water while refusing to utilise modern water conservation or sewage treatment methods and urged cooperation, via the Joint Water Commission, based on sustainable development.[22] In the West Bank, the building of pipelines to serve new Jewish settlements being built in the 1970s and 1980s, far from depriving Palestinians of water, facilitated the

massive increase in the flow of clean water (from four to over 300 villages) between 1967 and 1995. Gvirtzman contends that the fact that around 96 per cent of the residents of the West Bank now have daily access to running water, places them in a more favourable position than the people of Jordan or indeed of most developed nations.

Education

Education, especially of women, is a well-recognised determinant of population health. Educational opportunities for Palestinian youth in the West Bank were expanded beyond recognition under the Israeli administration (Table 8).

Table 8. Years of Education (%) of the West Bank Population, 1970-1994

Years of Education	1970	1980	1990	1994
0	47.5	28.5	21.8	16.8
1-6	26.4	26.8	23.1	21.3
7-8	10.5	12.7	12.8	13.2
9-12	14.7	24.7	33.4	38.5
13+	0.9	7.3	8.9	10.0

Source: Central Bureau of Statistics. Statistical Abstract of Israel, 1995

In the early 1970s, only about half the population of WB/G had ever attended school. Less than a fifth had nine or more years of education. A decade later, those without any schooling had declined to 28 per cent while about a third had completed at least nine years of schooling. By then, schooling was well on the way to becoming universal, and five university-level institutions had been established, four in the West Bank and one in Gaza. Large-scale vocational and technical training programmes proliferated and boosted industrial activity. Agriculture, the main economic activity, was a key focus of policymakers. Expertise gained from Israel in irrigation, pest control, use of fertilisers, crop management, and veterinary services revolutionised agriculture and generated enormously increased food supplies and agricultural exports.

Employment

Chronic unemployment prior to 1967 was rapidly replaced by virtually full employment, in large part due to the opening up of Israel's labour market to Palestinians. A network of employment offices, staffed by local residents, was created to help identify job opportunities and to ensure compliance with egalitarian Israeli legal requirements for pay and benefits.

Women's participation in the workforce increased steadily despite the opposition of

conservative forces in their communities. All of this resulted in accelerated economic growth. Per capita gross national product increased in the West Bank from $836 (US dollars) in 1968 to $1,973 in 1989, and in Gaza from $605 in 1968 to $1,316 in 1989.[23]

There are many other examples, too numerous to elaborate in detail here, of infrastructure and social development launched and nurtured by the Israeli administration. These include measures to improve food control, road building, telephone networks, policing, judicial procedures, and municipal governance.

PART 3: THE FINDINGS

The evidence presented in this paper overwhelmingly points to a clear answer to the question posed in the title – *Israel has not damaged Palestinian health. In fact, the opposite is the case.* Israeli policies were carefully formulated to improve health conditions in WB/G as rapidly as possible. These policies were carried through to implementation on the ground and brought about measurable improvements in Palestinian health and welfare. This was achieved, in the face of formidable obstacles, by a variety of means including an outstanding child immunisation programme, the launching of need-responsive innovations in primary care (crucially including maternal and child health services), a large hospital development programme, collaborative modes of working with Palestinian professionals, UNRWA and NGOs, and – arguably even more important – providing high quality training for doctors, nurses and other health providers in Israeli institutions thereby bringing modern standards to critical fields such as anaesthesia, renal dialysis, cardiac surgery and many others.

The data presented here, for all their shortcomings, permit the following six conclusions to be drawn:

1. Palestinians residing in WB/G generally suffer poorer health than their Israeli neighbours but enjoy better health than many Arab states.

Several key epidemiological indicators – notably life expectancy, child mortality and maternal mortality – suggest that WB/G suffers a poorer population health status than Israel. This is an unsurprising phenomenon reflecting a complex interaction of many factors: the different stages of economic development of the two societies, different patterns of employment, education and lifestyle, contrasting standards of local and regional governance. Moreover, the residents of WB/G (like those of Israel) are subject to severe stresses associated with political tension and military conflict – internal and external. An additional factor undermining Palestinian psychological health is the potentially corrosive effect of incitement to violence, often directly promoted by Palestinian officials (including the Palestinian Authority itself since 1994). The evidence amassed during the Nuremberg and Rwandan trials on the cause-effect relationship between hate language and mass atrocities resulted in incitement being defined as a crime against humanity by the UN and the International Criminal Court. The 'humanity' to which this definition refers is presumably that of the targets of the ensuing violence, but those incited may plausibly also be regarded as victims.[24] Nevertheless, most epidemiological indicators indicate that the health of the Palestinian residents of WB/G is currently similar to or substantially better than that of

neighbouring Arab states – especially Jordan and Egypt that were responsible respectively for health of WB/G prior to 1967 – and of many other low or middle income countries around the world.

2. Since 1967, following the cessation of hostilities between Israel and several Arab states and the establishment of an Israeli civil administration in WB/G, the health of Palestinians improved markedly.

Rapid and largely sustained improvements in the health status of Palestinians residing in WB/G – as measured by infant mortality rates, life expectancy, immunisation coverage and many other indicators – coincided with the period of Israeli civil responsibility of WB/G by Israel from 1967 to 1994. These improvements occurred to a large extent in parallel with trends in Israel and the wider region over several decades reflecting economic, environmental and social change in both communities and in the Middle East generally. At the same time, partly due to an extremely low starting point in 1967, Palestinian health lagged – and continues to lag – behind that of their Israeli counterparts for the reasons described above.

3. Given the low baseline, especially in Gaza, which suffered serious Egyptian neglect from 1948 to 1967, improvements in Palestinian health and healthcare could not have occurred by chance but were a consequence of health-promoting Israeli policies and activities closely co-ordinated with local and international partners, including UNRWA.

Israeli public health policies, supported at the highest levels of the Israeli government, were predicated on two core beliefs: that Israelis and Palestinians had a mutual interest in maintaining high standards of public health, and that good Palestinian health was good for peace prospects. There was a further element of idealism in that the WB/G services were explicitly designed to promote population health in accordance with the WHO's groundbreaking Health for All 2000 declaration. This involved a multi-pronged and sustained public health effort including the establishment of a greatly expanded primary and secondary (hospital) care systems along with the strengthening of the broader public health infrastructure (including housing, water, sanitation, education and employment) throughout WB/G. These policies were supported at all levels of the Israeli government, delivered by the Government health services of the Israeli civil administration, and facilitated on the ground by highly effective Israeli-Palestinian cooperation. Remarkably, these policies continued to be applied steadfastly and generally successfully despite an unstable and at times extremely violent relationship between the Israeli government and Palestinian paramilitary groups, notably during the First Intifada (1987-92).

4. Subsequent to the assumption of full responsibility for health by the PA in 1994 in the context of the Oslo Accords, many of the public health initiatives undertaken by Israel since 1967 were continued.

There is some evidence (from infant mortality rates and nutritional status, for example) that progress in Palestinian population health may have been faltering in recent years. The Second Intifada (2000-2004) was undoubtedly a contributory factor as were other events related to the ongoing conflict, notably the Israel imposition of sanctions and a partial blockade of Gaza following the Hamas coup in the wake of the Israeli withdrawal from that territory in 2005.

Since then, the region has been subjected to further intermittent outbreaks of terrorist violence and military campaigns.

An additional barrier to consolidating earlier gains in public health in WB/G has been the disappointing quality of governance of the PA over the last two decades, including inefficiency, corruption, and, not least, its incitement of the population to violence. Nevertheless, measurable if slower improvements in Palestinian health continued to occur in the two decades since 1994. This is an extraordinary achievement that reflects the continued commitment of all the relevant parties – Palestinian, Israeli and international – in the face of formidable obstacles. It is also testament to the long-lasting impact of the public health measures Israel implemented with vigour and resolve between 1967 and 1994.

5. Despite the overwhelming evidence to the contrary, many of Israel's critics – including distinguished doctors, scientists, politicians and NGO officials – continue to lay most or all of the blame for contemporary Palestinian health problems and related disadvantages exclusively or predominantly at the door of Israel and the occupation.

The most prestigious purveyor of a distorted narrative of Israeli culpability for Palestinian health problems is the UK-based international medical journal *The Lancet.* Waving a specious banner of 'pursuing peace, justice and health,' the journal, under the editorship of Dr Richard Horton, has provided a platform for a sustained and unwarranted intellectual assault on Israel over several years.[25] It has adopted an explicitly one-sided posture in relation to Israel-Palestine that fails to meet minimal standards of non-partisanship, accuracy and objectivity. Given *The Lancet*'s claim to disseminate high quality research that informs evidence-based medical practice, this failure of normal peer review, combined with the clear politicisation of an important academic resource, should be challenged by the international medical and scientific community.

6. The politicisation of health by Israel's enemies is not a new phenomenon. It is manifested in UN agencies, the media, medical journals, academic conferences and research reports published by humanitarian or medical NGOs purporting to promote universal human rights.

Three examples of the politicisation in the health arena are especially egregious.

First, the banishment of Israel into a separate 'Committee B' of the World Health Organisation's Eastern Mediterranean Region in 1951, at the behest of the Arab League, was a cynical move designed to isolate Israel further from her immediate neighbours. (In exasperation, Israel eventually accepted membership, despite its obvious geographical absurdity, into the European Region of WHO).

Second, for over half a century of the International Federation of Red Cross and Red Crescent Societies refused either to admit Israel to its ranks or to recognise her Magen David Adom (Red Star of David) as the symbol of its emergency medicine organisation. This policy was justified on the spurious grounds that the Star of David was a 'religious' symbol – despite the Christian Red Cross and Muslim Red Crescent being granted recognition without challenge.

Third, several medical NGOs have exploited the 'double halo effect' (humanitarianism plus health) to attack Israel unfairly for its allegedly health-destructive behaviour towards the

Palestinians. Many of these NGOs launched a campaign of Boycott, Divestment and Sanctions (BDS) against Israel at a notorious anti-racism conference held in Durban, South Africa in 2001, at which Israel was denounced as an allegedly 'apartheid state' and anti-Semitism was openly on display. [26] *The Lancet*'s relentless pillorying of Israel, in the guise of promoting Palestinian health and welfare, resonates strongly with the Durban strategy and should be viewed in the light of that unsavoury enterprise.

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The promulgation and perpetuation of the myth of Israeli culpability for the health challenges faced by Palestinians in the period 1967-94 and even up to the present day ('legacy of occupation') should be recognised for what it is – a disingenuous form of anti-Israeli rhetoric that obscures reality, undermines reconciliation between Israelis and Palestinians, and contributes nothing to Palestinian health.

The politically damaging impact of propaganda masquerading as 'humanitarian concern' or as 'science' should not be underestimated. The role of high-profile medical scientists, professional bodies and journals in disseminating a highly politicised, false and misleading analysis of Palestinian health is disturbing. Individuals and organisations that abuse their positions of public respect and credibility to sow hatred and discord should be held to account by the international medical and scientific community.

Note on Terms and Method

Definitions

Palestine: The West Bank (excluding East Jerusalem) and Gaza Strip (Gaza). Jordan administered the former and Egypt the latter until 1967. Israel administered both areas from 1967 to 1994 when full responsibility for health was transferred to the Palestinian Authority under the Oslo Accords.
Palestinians: Unless otherwise stated, the term refers to the Arab Residents of the West Bank and Gaza (WB/G).
Health: According to the World Health Organisation (WHO), health is 'a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.' [27]
Public health: The UK Faculty of Public Health defines public health as 'the science and art of promoting and protecting health and well-being, preventing ill-health and prolonging life through the organised efforts of society.'[28]

Data sources

A range of sources was examined. These included published policy documents, reports and articles, and the online databases of the World Bank, UNICEF and CIA as well as the national statistical agencies of Israel and the Palestinian Authority. For various reasons, not least the political complexity of the region, obtaining valid and comparable statistical data posed a

major challenge. The precise borders of 'Palestine' or the 'West Bank' were not always clearly specified, with East Jerusalem (annexed by Israel in 1980) at times being included while at other times not. Moreover, United Nations's bodies are obliged to report data using dubious and politically contentious definitions, terminology (e.g. the 'Occupied Palestinian Territory' still includes the Gaza Strip, from which Israel withdrew in 2005, as well as all of East Jerusalem) and boundaries. Even the WHO is not immune from such pressures and is a particularly problematic source due to the exclusion of Israel from the Eastern Mediterranean (largely Arab) region (see Discussion and Conclusions).

The data are presented within the following categories: demography, life expectancy at birth, mortality, infection, nutrition, heath care, and broader influences on health. Data on casualties relating directly to military or paramilitary conflict were not included in this study.

Analyses

The health of Israelis and Palestinian residents of WB/G was compared, as far as possible, in the context of a) the aftermath of 1967 Arab-Israeli war, when Israel took control of those territories, and b) the regional neighbouring Arab states, as well as on occasions selected comparator countries outwith the region. The time period of greatest focus was 1967-94, when Israel had administrative responsibility for the health of the residents of WB/G, prior to the transfer of responsibility under the Oslo Accords to the PA, though data relating to earlier and later years are sometimes presented where available and appropriate.

The findings are presented under the headings of the epidemiological indicators for which data were obtained, and are interwoven, where appropriate, with contextual observations on the relationship of the data to Israeli public health policy and practice, as well as broader social and economic factors, both generally and in WB/G.

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