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# **Final Report**

**Independent fact-finding mission into violations of human rights in the  
Gaza Strip during the period 27.12.2008 – 18.01.2009**

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**Our deepest thanks and appreciation go to the victims of the attack on Gaza, who agreed to testify and give evidence before the team. Our report is dedicated to them.**



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أطباء لحقوق الإنسان-إسرائيل  
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## Introduction – Aims and Methodology

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### Fact-finding Mission Phase I

Following the ceasefire in the Gaza Strip, PHR-Israel and PMRS issued an international call for medical experts in the fields of forensic medicine, burns, medical response to crisis regions, human rights and health, and public health. It mandated those who responded to collect and analyze evidence regarding the following:

- Attacks on medical facilities and teams
- Evacuation of the wounded and the dead
- Causes of injuries and of deaths with relation to types of arms used
- Impact of the attack on the health system
- Impact of the attack on public health issues
- Other medically-related violations

The urgency of the mission was stressed due to the necessity of collecting evidence while it was still relatively undisturbed, and the events still fresh in the minds of the victims.

Those who were asked to participate were chosen because of their professional capabilities and because they were independent of affiliation to any state, party or organization in Israel and the OPT, and to any political body in any other country.

The aim of the mission was to collect, wherever possible, information from witnesses and victims as well as material evidence in a manner enabling the use of the information gathered for any legal or other objective as coming from reliable and credible sources.

The entry of the mission into Gaza was facilitated by PHR-Israel by official request for entry permits submitted to Israeli government ministries and the Israeli military authorities at Erez Crossing. Entry was enabled on 29 January 2009 after a delay of 24 hours from the planned entry time. SAW entered 7 hours later due to a further delay by the Israeli authorities at the Crossing, explained as based on "security procedures".

The experts exited Gaza via the same route, but sent material samples they had collected via reliable messengers via Rafah Crossing and Egypt to laboratories in the UK, Denmark and South Africa.<sup>1</sup> This route was chosen in order to avoid compromising or damaging of the samples by the security personnel at Erez Crossing.

JT left Gaza earlier than the rest of the group, on 3 February 2009. The rest of the experts left Gaza on 5 February 2009. SVA was delayed several hours longer than the others and was strip-searched at the Crossing.

The entry of the team was approved by the de facto Ministry of Health, thus enabling the team access to all governmental hospitals and sites, as well as the Environmental department of the Islamic University. The Ministry of Health also met the team and enabled the experts to take available tissue samples and other materials out of the Gaza Strip for analysis.

It was agreed after negotiation with the Ministry of Health that the team should be enabled free and undisturbed work in order not to compromise its mission as an independent fact-finding team. The team therefore relied heavily on the fieldworkers of NGOs AIMezan (a Gaza-based human rights organization) and PMRS in order to reach witnesses and sites. It should be noted that in some parts of the tour a representative of the de facto government (Hamás) accompanied some members of the team and observed their work. Where this occurred it is stated in the relevant testimonies under "others present".

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<sup>1</sup> Tissue samples were sent to South Africa and Denmark by a representative of Amnesty International and environmental samples were sent to the UK by a representative of Human Rights Watch.

As a rule, hospital staff and other medical professionals, as well as all other witnesses, were open and willing to testify, and patients were willing to be examined for this purpose.

The experts visited hospitals, homes and sites of occurrences and each had a camera to record findings. Hand-written notes were taken on site, and wherever possible medical files and photos were copied.

The experts interviewed witnesses, survivors, victims, hospital doctors and other medical professionals, international bodies, Ministry of Health officials and scientists in Gaza, as well as liaising on an ad hoc basis with other international experts, including weapons experts from Human Rights Watch and Amnesty International, on the ground, wherever relevant.

The experts split into teams of two or three each day and divided the reporting work among themselves, comparing notes at the end of each day and planning fact-finding for the next day.

For interpreting purposes AVM, a fluent Arabic and English speaker, was available. In addition, fieldworkers of AlMezan accompanied the team to interviews and provided interpreting services. Fieldworkers of PMRS Gaza also facilitated visits to medical centers and patients' homes, and provided office services to the team.

For legal purposes, AlMezan lawyers were requested to take sworn affidavits from the witnesses interviewed. These are not included in this report.

Autopsies are not routinely performed on Suicidal, Accidental, Unknown or Natural Deaths for religious and cultural reasons in Gaza. Hence most of the fatal casualties had not been forensically autopsied to ascertain the precise cause of death.<sup>2</sup> The team did not perform autopsies but examined patients and files, as well as taking tissue samples and samples from soil, water, slush and grass for purposes of analysis (see Appendices 1-3 below).

Following the exit of the team from Gaza a debriefing was held with PHR-I and PMRS, in AlAzariyya, East Jerusalem. Since no disagreements were reported, the team decided to report on its findings in a coordinated manner. An outline of the report structure was agreed upon, a division of tasks was set and each of the experts was asked to record his/her findings in chronological order, and to provide titles and dates for the photos. All photos were uploaded to a coded website for use by the experts. The chronological report was then edited according to subject and testimony by Miri Weingarten of PHR-Israel, with the guidance and assistance of AVM. Drafts were sent for approval to the experts, to PHR-Israel, PMRS and AlMezan, and to an external legal expert for analysis.

## Fact-finding Mission Phase II

Since the majority of seriously injured people had been referred to Egyptian hospitals via Rafah Crossing,<sup>3</sup> attempts were made at an early stage to send a second team of experts to hospitals in Egypt. However, since it was unclear whether the Egyptian government and medical authorities would authorize such a mission, the second team was not sent. Instead, one of the experts of the first team, an Arabic-speaking nurse and public health professional (see under List of Authors, AVM above), went alone to Egypt between 2 March 2009 and 7 March 2009, and visited patients at the various hospitals, using contact details she had procured from witnesses in Gaza whose relatives had been sent there for medical treatment. In this manner the stories of some of the witnesses were corroborated and elaborated upon by other victims of the same attacks in Cairo. Other patients at the hospital also agreed to give her their testimonies, although their medical files were not available. AVM also made contact with several doctors in Cairo, one of whom was the coordinator of all transfers of the Palestinian wounded from Gaza to Egyptian hospitals. The testimonies of this doctor as well as of the patients interviewed are included in the report.

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2 As reported to the team (SAW) on 31 Jan 09 by forensic officer of the Pathology department of Shifa hospital. 60 autopsies per annum are reportedly performed, mainly due to homicide.

3 See Chapter 5.3 below, "Referral abroad of the wounded", but also World Health Organisation, *Gaza Strip: Initial Health Needs Assessment*, Gaza, 15.2.2009, p. 11 [http://www.ochaopt.org/gazacrisis/admin/output/files/ocha\\_opt\\_organizations\\_report\\_early\\_health\\_assessment\\_2009\\_02\\_16\\_english.pdf](http://www.ochaopt.org/gazacrisis/admin/output/files/ocha_opt_organizations_report_early_health_assessment_2009_02_16_english.pdf). Discrepancies in figures between sources stem from the partial information available to officials on the ground in Gaza during and shortly after the attack.

## The Report

The report is intended for publication and for public use by anybody, and especially those involved in the pursuit of accountability for violations committed in the Gaza Strip.

**It is important to stress that the information that could be gathered in less than a week of fact-finding is by nature preliminary and partial. The report aims to provide raw materials in order to contribute to and corroborate broader ongoing and planned fact-finding projects by civil society and/or local and international institutions.**

The aims and mandate of the report are defined as follows:

- Contribution of evidence in the form of photographs, written medical records and records by impartial professionals of physical examinations and of interviews.
- Recording of the information gathered according to categories related to adherence to international humanitarian law and human rights, especially in the fields of protection of medical personnel and facilities, evacuation of injured, protection of civilians and the use of weapons against civilians.
- Initial impressions of the types of injuries sustained
- Initial impressions of the impact of the attacks on public health and on the health system
- Initial impressions of the general nature of the attacks in Gaza within the context of human rights
- A preliminary legal analysis

In the report below, only cases that provide clear, concrete and reliable information are included. Evidence that was researched by other relevant bodies of expertise and which was only partially available to the authors has been omitted for the sake of focus and clarity.

A distinction is made wherever possible between first-hand information from witnesses, reported information from organizations and professionals, physical examinations and direct observations by the experts. Where relevant, photographs and material evidence are referred to.

Testimonies appear in relevant chapters. All direct testimonies are numbered, for purposes of future reference. Photographs are numbered separately. Where testimonies include information relevant to more than one issue (e.g. attacks on civilians and denial of evacuation), excerpts are cited in additional chapters, with reference to the full version. For reasons of differing methodology, some of the direct testimonies are in the first person, in quote form, while others are recounted by the interviewers in the third person. Where general information was received from professionals, it is presented not in the form of a testimony but recounted as a narrative in the third person.

This chapter was written by Miri Weingarten of PHR-Israel with approval of the authors of this report. The conclusions to this report were written by SVA with additions and comments by the other authors and by PHR-Israel and PMRS. The legal analysis appended to the report was written by an independent expert in International Humanitarian Law and humanitarian issues, Ms. Magali Jandaud.<sup>4</sup> It is based on her examination of several drafts of the report and of the photographs. References and explanatory remarks throughout the report were added by Miri Weingarten of PHR-Israel.

The analysis of material samples that were sent to laboratories by the team (see Appendices 1-3 for details) will be made public when complete, in the form of an addition to the appendices.

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<sup>4</sup> University of Paris VII, France. Expert in International Humanitarian Law and in management of humanitarian affairs. Ms. Jandaud has worked with the UN and with various international organisations in conflict regions. Ms Jandaud did not accompany the team into Gaza but read and provided a preliminary legal analysis of its findings.

## Medical Confidentiality and Protection of Privacy.

In cases where medical details of individuals are provided, names and faces of the persons involved are withheld. Witnesses recounting events are identified by name and photograph if they agreed to do so. Telephone numbers of witnesses are available for future corroboration of facts but have been retained by the experts in order to protect their owners' privacy and safety. Medical files are likewise retained by the team.



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## 1. Denial of Evacuation and attacks on medical teams

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### Overview

According to the head of the Gaza Sub-Delegation of the International Committee of the Red Cross (ICRC),<sup>5</sup> a “coordination mechanism” exists, and has existed for the past 10 years, for the entrance of important vehicles into areas of Israeli control. These vehicles are ambulances of the Ministry of Health or the Palestine Red Crescent Society (PRCS), fire brigades, fuel trucks and similar transport vehicles etc. All institutions involved have the same type of satellite maps, on the basis of which locations can be precisely indicated. ICRC does not have any ambulance, only vehicles for escort. The ICRC does, however, pay for ambulances of the PRCS and of the Ministry of Health. In case of need, a request to access a controlled area is first directed to the ICRC, which informs the Israeli military (COGAT – Coordinator of Government Activities in the Territories). This unit contacts the ground troops in the area, from where authorization or the refusal of authorization is then transmitted in the same way backwards. In the beginning of the existence of this mechanism it took about one hour to get authorization or refusal. In October 2008 it took about five hours. During the recent attacks the time increased to sometimes more than one day. It took four days to reach the attacked area of Al Zeitoun.<sup>6</sup>

There was never a clear definition of the areas, where “coordination” would be required. It was normally requested when it was assumed that an area would be unsafe or fighting was expected to take place. There have been many cases, when for example ambulance drivers went to rescue people without authorization or even after authorization had been refused. Ambulance drivers were certainly the most courageous people during the attacks.

In total 160 coordination requests were received for ambulances. ICRC has documented all these cases and is at present analysing how many authorizations were given and how many refused and under which circumstances this happened. These figures, however, will not be published, only discussed with the Israeli authorities. 1160 people were evacuated, not all of them injured. In Al Zeitoun 103 people were evacuated by four ambulances with one ICRC vehicle as escort. 16 ambulances of PRCS and 13 of the Ministry of Health were damaged.

The team was also told by Mahmoud Abu Rahma of Palestinian human rights organisation AlMezan of frequent attacks on ambulances and cases of preventing ambulances to evacuate patients. Asked whether ambulances had been used for military purposes, he says that he cannot exclude that this may have happened, but that in case it has, the burden of proof is with the Israeli army.<sup>7</sup>

The team was told by several ambulance drivers that they had driven slowly with red lights and siren and doors of the ambulance open so that soldiers could see that nothing illegal was transported.

The ambulance drivers the team spoke to recalled many times in which they were shot at by Israelis over recent years. Over the last two years they were shot at at least five times. This was more or less an average for all ambulance drivers the team spoke to.<sup>8</sup> PRCS volunteer ambulance driver Ahmad Abu AlFul had been injured by the IDF on five previous occasions and demonstrated wounds on his left thigh that were consistent with healed entrance and exit wounds (photographed).<sup>9</sup>

They further informed the team that in the course of the most recent attack the so-called coordination mechanism was rather hopeless; it could take 2, 3 and in some occasions even up to 15 days before permission was granted to enter certain areas.<sup>10</sup>

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5 The information in the following paragraphs was given in a personal communication to RS during a visit and interview held at ICRC offices in Gaza, with Antoine Grand, head of Gaza Sub-Delegation, and Muhammad Ramadan, health field officer, 4 Feb 2009.

6 See 1.1, testimonies T2, T3 below.

7 Personal communication during a meeting with RS, SVA, 29 Jan 2009.

8 Personal communication to SVA by Ashraf alKhatib during taking of testimonies from ambulance drivers at PRCS ambulance center in Rafah, 2 Feb 2009

9 Personal communication to SAW by Ahmad Abu AlFul, during his visit to PRCS Zemo Jabalia on 30 Jan 2009.

10 Personal communication to SVA, RS, AVM by Marwan Hamouda at PRCS ambulance center in Jabalia, 1 Feb 2009

## 1.1 Victims

### CASE STUDY 1 – The Shurrab family<sup>11</sup>

#### T1

<b>Witness:</b>	Muhammad Qassab Khalil Shurrab (victim and eye witness)
<b>Gender:</b>	M
<b>Age:</b>	64
<b>Date of Interview:</b>	2 Feb 2009
<b>Location of interview:</b>	Khan Younis
<b>Interviewers:</b>	AVM, RS, SVA
<b>Also present:</b>	AlMezan fieldworkers

Muhammad Shurrab sat with the team and two field workers of Al Mezan on the roof of his house in the centre of Khan Yunis. He prepared a number of photographs, and a map made by himself as well as a written Arabic description of what happened to him and his two sons.

Muhammad Shurrab lived for 30 years in Saudi Arabia. When he became older, he wanted to go back to his home country Palestine. In 1997 he bought land in the Gaza Strip only 350 m from the border with Israel. There he built a concrete house and surrounded it by a beautiful and productive garden. He tells about the big number of fruit trees he has been planning there, and as a proof, he asks one of his daughters to serve the team fresh grapefruit juice from fruit of his garden. He normally stays in that house. Only once a week, he comes to the house in town in order to look after his family, especially his two daughters.

In January a storm had damaged the satellite dish on his house and he could no longer watch TV. So his son Qassab (28 years old, architect) came to see him and to repair the dish, accompanied by his younger brother Ibrahim, (18 years old, a university student in his first semester of architecture). On Friday, 16 January, the three of them wanted to go back to Khan Yunis, which is only a short distance. There were certain hours of cease fire during these days. So they were informed about these hours and were told that there was a cease fire from 10:00 to 13:00 hours that day. So they left after the prayer at noon in the red Land Rover, first using the dust road which led them to the asphalt road. Muhammad drove slowly. Already on the asphalt road he saw two Israeli tanks on his left side. However, there was no fighting. He waved to the soldiers, who waved back, and proceeded. After about 200 m,<sup>12</sup> the car was hit by gun fire. The shooting hit the front windscreen of the car, which led Muhammad to think that the soldiers shot to kill and not to warn. Muhammad was hit in his upper left arm. He shouted at his sons to put their heads down and tried to protect himself. The windscreen of the car was hit by 22 bullets. He lost control over the car and stopped it at the side of the street.

The soldiers were in a house about 40 m in front of them. They shouted at them and ordered them to leave the car. Qassab left the car and started walking in the direction of the house where the soldiers were. He was immediately shot at in his face. When Ibrahim also left the car, he was hit by a gunshot in his leg. Muhammad saw four soldiers standing at the main entrance of the house shouting at them. Ibrahim tried to call the emergency number 101 with his mobile phone, but the soldiers shouted that they would kill him, if he used his phone and ordered him to throw it away.

Muhammad then slipped out of the car and crawled to Ibrahim. He managed to grasp his own mobile phone and called 101. The ambulance centre told him that they were not allowed to come to the area to rescue them. He then asked the soldiers to give them first aid, but the answer was a warning shot. Then he managed to get contact with his brother, who again tried to phone an ambulance. In

11 For a media description of this event see e.g., Israeli daily *Haaretz*, "Legal Weapons also kill", Amira Hass, 14.2.09, <http://www.haaretz.com/hasen/spages/1057369.html> (accessed 16.3.09)

12 During the meeting with the team the witness presented a typewritten testimony in Arabic, which he said he had written when the events were fresh in his mind and which he asked to refer to as the definitive version of the case. In this text he says that he was 50 meters past the tank when the car was fired on. See translation of the testimony in Appendix 5 for other slight divergences of the two testimonies.

the ambulance centre, they recommended that the brother should inform media about the situation, which he did. As a consequence of that, Muhammad was called several times by media like Al Jazeera and BBC, while he was lying on the road with his sons. He was also called by Tom Mehager of Physicians for Human Rights Israel during the night, who tried to comfort him.<sup>13</sup>

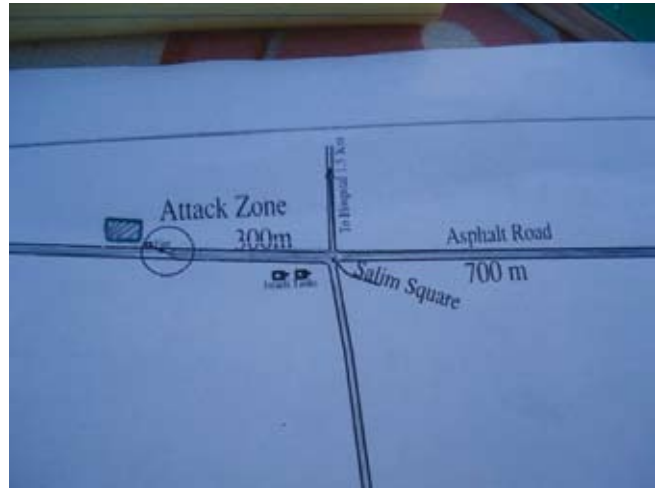
It became dark and cold. Muhammad approached the body of his older son and found him dead. At about 20:00 he took Ibrahim into the car in order to protect him from the cold. Ibrahim continued bleeding from his leg and became weaker. They were about 1 km from the European Hospital. Ibrahim died at about 00:30. An ambulance finally arrived at 11:00 the next day, meaning that 23 hours had passed since they had been shot at. Muhammad had to stay five days in hospital, while his two sons were dead.

Muhammad Shurrab insists that he has never had any problems with Israelis. He does not understand why this happened.<sup>14</sup>

Other material evidence attached: testimony in writing by witness (Arabic), translation into English (see Appendix 5 below).



**1a Shurrab Family Interview. Khan Yunis. 02.02.2009, 18.12.**  
Photo by AVM



**1b Muhammad Shurrab's map of the area.**  
Photo of map 02.02.2009, 17.59 by SVA



**1c Muhammad Shurrab's photo of the car.**  
Photo of photo 02.02.2009, 17.50 by AVM



**1d Family photos Ibrahim and Qassab Shurrab.**  
Photo of Photo 02.02.2009, 18.43, by SVA

<sup>13</sup> See also PHR-Israel Update 19.1.09, "Summaries of the cases of wounded and trapped people who applied to PHR-Israel for assistance in evacuation", 16-17.1.09, <http://www.phr.org.il/phr/article.asp?articleid=691&catid=55&pcat=-1&lang=ENG> (accessed 6.3.09).

<sup>14</sup> Muhammad told the team that he later found out that the soldiers had taken civilian people as hostages in the house from which they fired. One of the hostages understood Hebrew. He later testified also to German author and journalist Carolin Emcke ("Die Zeit" 12.2.09, "Warum Starben Ibrahim und Kassab?", <http://www.zeit.de/2009/08/DOS-Gaza>, accessed 16.3.09), that when the car arrived, one of the soldiers had asked by radio, what they should do. The answer had ordered them to shoot to kill. Gharib, a caseworker for Palestinian human rights organisation, AlMezan, gave the team the name of this hostage, witness Ahmad Said AlMamur. Phone number of a contact to this witness is retained by the team.

## SE STUDY 2 – the Samouni family<sup>15</sup>

### T2

<b>Witness I:</b>	Mas'ouda Samouni (victim and eyewitness)
<b>Gender:</b>	F
<b>Age:</b>	20
<b>Date of Interview:</b>	31 Jan 2009
<b>Location of Interview:</b>	Samouni Family, Al Zaitoun neighborhood, Gaza
<b>Interviewer:</b>	AVM
<b>Also present:</b>	four other female members of the Samouni family were present during the interview which was undertaken during the ceremony of mourning (A'zza).

The women interviewed stated that the ambulances were not able to assist them as the soldiers shot at them whenever they attempted to rescue them. When the ambulances arrived, three days later, they found some survivors amongst the remains of the house. The injured were taken first to the hospital and when they returned to remove the dead, they were prevented from doing so by the IDF.

A 14 year old adolescent who had been under the collapsed house for three days with the deceased, was present at the interview and verified the facts. He was injured on the scalp.

### T3

<b>Witness II:</b>	Antoine Grand, ICRC16 (international aid worker and witness)
<b>Date of interview:</b>	4 Feb 2009
<b>Location of interview:</b>	ICRC Gaza offices, Gaza
<b>Interviewer:</b>	RS

...It took four days to reach the attacked area of Al Zeitoun... In Al Zeitoun 103 people were evacuated by four ambulances with one ICRC vehicle as escort.

## CASE STUDY 3 – The family of Dr. Az-Addin Abu AIAish<sup>17</sup>

### T4

<b>Witness:</b>	Shehab Addin Abu AIAish, brother of Az-Addin Abu AIAish.
<b>Gender:</b>	M
<b>Age:</b>	unknown
<b>Date of interview:</b>	30 Jan 2009
<b>Location of interview:</b>	Apartment of Dr. Az-Addin Abu AIAish, Zemo Junction, Salah A-Din Street, Jabalia, north Gaza Telephone retained by experts
<b>Interviewers:</b>	RS and SVA
<b>Also present:</b>	Dr. Az-Addin Abu AIAish, expert obstetrician working for WHO in Israel and the Gaza strip, to whom the apartment belonged, was not present during the visit.

<sup>15</sup> For the full testimony and other testimonies regarding this incident, see 4.1, Case Study 1 below.

<sup>16</sup> For more general information provided by Antoine Grand, see Chapter 1, "Denial of evacuation and attacks on medical teams" above, "Overview".

<sup>17</sup> For the full testimony see Chapter 4, "Attacks on civilians" below, Case Study 2. This case was widely covered by press internationally due to its real time coverage on Israeli TV. For media accounts of the attack see e.g. Israeli Ynetnews, <http://www.ynet.co.il/english/articles/0,7340,L-3657455,00.html> (accessed 16.3.09); AlJazeera English <http://www.youtube.com/watch?v=8UxJWdCwOpc&feature=related>. See also PHR-Israel, "Summaries of the cases of wounded and trapped people who applied to PHR-Israel for assistance in evacuation, 16-17.1.09, <http://www.phr.org.il/phr/article.asp?articleid=691&catid=55&pcat=45&lang=ENG> (accessed 16.3.09).

...Apparently the doctor phoned into a live Israeli TV-show and described in detail what was happening, asking for the bombing to stop and ambulances to get access to the area. However, the ambulances in a nearby ambulance centre were already evacuated because of previous attacks. The ambulances which were called from the building were not allowed into the area although it was not an area where coordination was required. They could not approach closer than 1 km to the building and therefore the four wounded children had to be carried to the ambulance over this distance.<sup>18</sup>

#### CASE STUDY 4 – Abed Rabbo family<sup>19</sup>

##### T5

<b>Witness:</b>	Souad Abed Rabbo (victim and eye witness)
<b>Gender:</b>	F
<b>Age:</b>	54 <sup>20</sup>
<b>Date of interview:</b>	2 Feb 2009 09:00
<b>Location of interview:</b>	Abed Rabbo neighborhood, Jabel Al-Kashef, north Gaza
<b>Interviewers:</b>	JT, SAW
<b>Also present:</b>	Fred Abrahams of Human Rights Watch, son of witness Khaled Muhammad Monib Abed Rabbo and another son Hossam. After a while her husband also came into the room. There were a number of women in the room and in the neighboring rooms. A daughter helped with the physical examination. The interpreter was Fares.

...They were shouting for ambulances and one of her sons Ahmed called on the phone for an ambulance. They could not by phone or otherwise come in contact with an ambulance. A neighbor, however, by the name of Samih al-Sheikh was an ambulance driver and tried to come to their rescue. He was prevented from doing that, as the soldiers shot at him.

After a while Khaled's wife looked out of the window to see that there were now many tanks.

The interviewee now gave the dead Amal to her husband Muhammad Monib Abed Rabbo, who carried her out of the house and came back a little later telling everybody to leave the house. Khaled was carrying Samar, while Souad Abed Rabbo was carried on a bed.

They all left the house and the Israeli soldiers shot "around them" but not at them.

They went towards Zemo Junction in order to find an ambulance. At the Zemo Junction there was a father and his young son with a horse and carriage. As they were requested to help, the Israeli soldiers first shot the horse and the young man by the name of Adham Rahim Nazir. The latter was admitted to hospital in Egypt and had died due to his wounds three days before the interview. Khaled, the son of the witness, had explored this, as he wanted to know the fate of the man who was shot trying to help them.<sup>21</sup>

They found an ambulance about 1200 m from the house and were taken to Kamal Adwan hospital.

<sup>18</sup> Some of the injured were ultimately evacuated to Israeli ambulances and from there to Israeli hospitals, in one case by military helicopter. One of the wounded, the doctor's brother, was evacuated to Kamal Adwan hospital. For analysis of this rare occasion of Israeli evacuation during the attack, due to prime-time TV coverage, see PHR-Israel, "Public Position 18.1.09: Propaganda and Medical Care for the Wounded", <http://www.phr.org.il/phr/article.asp?articleid=689&catid=55&pcat=45&lang=ENG> (accessed 16.3.09).

<sup>19</sup> For the full testimony see Chapter 4, "Attacks on Civilians" below, Case Study 3. The same witness was also interviewed by a fieldworker from Israeli human rights organization B'Tselem and her testimony is recorded by them.

<sup>20</sup> According to B'Tselem born 1953, 56 years old.

<sup>21</sup> This part of the testimony was not mentioned by Souad to B'Tselem's fieldworker.

## CASE STUDY 5 – Helicopter shooting prevents ambulance evacuation

### T6 (name withheld)

**Witness I:** OAK (victim)  
**Gender:** M  
**Age:** 22  
**Witness II:** YAK (Brother of witness I)  
**Date of interview:** 4 March 09  
**Location of interview:** Palestinian Hospital, Cairo, Egypt  
**Place of residence:** Al Zeitoun, Gaza  
**Interviewer:** AVM

**Physical observation:** O has an approximately 15 cm long scar on his scalp. The tissue under the scar is soft and tender. He suffered a severe skull trauma and shrapnel in the brain. As a result, the haemorrhage caused a haematoma on the right lobe of the brain.

He was conscious, alert and orientated when AVM visited him, but he could not remember anything of the attack. His thinking and his speech were slow, and his memory has been seriously affected by the injuries. After 28 days in coma, regained consciousness, but he could not move his legs and he could not stand. Nevertheless, he has neurological reflexes on his feet and good sphincter control. These signs indicate that O may recover some of his neurological functions after a rehabilitation programme.

His brother Y told AVM about the dynamic of the attack:

“O was injured on the 12th of January, at 8 p.m. He was on the Street Zamaniah (the 8th st.), close to the mosque. They were a group of five young men. They were targeted by an Apache. Four of them died.

It took more than two hours till the ambulances could reach the place. The Apache was still flying over the area and whenever the ambulance came close, they shot at them.

When the first aid team arrived they found five bodies. They took them to the morgue and opened the fridge-cell to put the bodies in. They were fitting them in when my brother made an involuntary movement (it was like a spasm, since he was in coma). The workers shouted ‘fi roh, fi roh’ (literally, there is spirit = he is alive), and took him to the hospital.

Even after surgery he was still in coma for 28 days. The doctors explained to us that they had tried to clean the brain from shrapnel and blood, but his brain was very much damaged and we could not know yet the out coming of the operation. I am optimistic, because he was almost dead and now he is improving every day.... He will need further surgery to implant an artificial bone....”

Y gave AVM a copy of the post surgical report (retained by team).



6b Palestinian Hospital Cairo. OAK 04.03.2009, 17:59 by AVM



6a Palestinian Hospital Cairo. OAK 04.03.2009, 17:58 by AVM



## CASE STUDY 6 – Helicopter shooting prevents ambulance evacuation

### T7 (name withheld)

<b>Witness I:</b>	HAK(victim)
<b>Gender:</b>	M
<b>Age:</b>	20
<b>Witness II:</b>	FAK (uncle of witness I, eye witness)
<b>Date of interview:</b>	4 March 09
<b>Place of interview:</b>	Palestinian Hospital, Cairo, Egypt
<b>Place of residence:</b>	Al Zawaidah (Al Baher St.)
<b>Interviewer:</b>	AVM

Witness II affirmed that H still had shrapnel in the brain which could not be removed, because they were in very dangerous locations. H was alert and orientated, but he could not remember anything of what happened to him, and he did not know that some members of his family died in the same attack. He was not able to follow a conversation.

Witness II told AVM about the attack. He was present in the house because many members of the extended family AK lived in the same building, close to the sea. They lived 100 metres from the beach.

“There had been war ships in front of the coast for some days. The night of the 7th of January, at around 23:30, some of the young men of the family came from the beach saying that the soldiers had landed and were occupying the area. Many people were on the streets, because they were afraid of air attacks but, when they knew that the soldiers were approaching, went back to their houses trying to protect themselves and their families.

All of sudden, a violent air attack started. They shelled from Apaches and drones and for some minutes it was hell.

Many members of the family were among the casualties:

- H's father, brother and sister died
- One cousin and 5 more relatives were also killed
- 2 uncles, 2 brothers and several cousins were injured.
- H was injured in the head. He had shrapnel in the brain and was in coma for 22 days.

The ambulance could not reach the place until 4 hours later. They were in the vicinity but, every time that they tried to approach the area, they were shot at.

Some of the wounded died of haemorrhage. I was only 50 metres away from some of them and they were crying for help, but we could not do anything for them, because the Apache shot at anything moving around. We saw our own people bleeding to death and we couldn't help them”.

H was taken to Shifa' Hospital in Gaza and then to the Palestinian Hospital in Egypt, after a few days in Shohada' Al Aqsa Hospital

Medical documentation was not available



7 Palestinian Hospital Cairo. HAK 04.03.2009, 17:59 by AVM

## CASE STUDY 7 – Iyad and Doa' Al Banna<sup>22</sup>

### T8

<b>Witness III:</b>	Ashraf Mahmud Al-Banna (uncle of Witness II, present at attack)
<b>Gender:</b>	M
<b>Age:</b>	?
<b>Date of Interview:</b>	4 March 09
<b>Location of interview:</b>	Palestinian Hospital, Cairo, Egypt
<b>Place of residence:</b>	Jabalia, north Gaza
<b>Interviewer:</b>	AVM
<b>Also present:</b>	Iyad Al Banna (witness II)

"...The third attack took place when the ambulance arrived to rescue my nieces and nephews. The emergency team had just reached the place when the third rocket was shelled at them. Two paramedics died in the attack. After that, no one dared to go close to the bodies. We were all relatives. We were living in the same house and we had to wait for many hours before we could pray for them and bury them. Each time we tried to reach their flat, the Apache would open fire on us, so we had to withdraw and wait.

I am sure that the soldiers were watching us: they purposely hit the girls, first, and then the boys and the paramedics. They have the equipment to do that. It seems that they were waiting for the rescuers to come to hit again and again...."

## CASE STUDY 8 – Abu Halima family<sup>23</sup>

### T9

<b>Witness II:</b>	Muhammad Saad Abu Halima, the father of Farah, 30 months old, who was injured in the attack
<b>Gender:</b>	M
<b>Age:</b>	24
<b>Date of interview:</b>	2 March 2009
<b>Location of interview:</b>	Military Hospital in Hilmiya, Egypt
<b>Place of residence:</b>	Beit Lahia, Al Sieh, AlAtatra, Gaza.
<b>Interviewer:</b>	AVM
<b>Also present:</b>	Farah Muhammad Abu Halima, (f) 30 months old, daughter of witness, and father of another injured person (Ghada Riad Abu Halima, 20) - Riad (Abu Ghada).

"...We were going down the street Kamal Adwan, and we had almost reached the school when the soldiers halted us. A tank appeared on the street and stopped close to the school. The soldiers were occupying the second floor of a building which was only 20 meters away from the street. They could see that we were all wounded and dirty from the explosions, because the tractor was open at the back. They shot at us, killing my cousins Matar Saad Abu Halima and Muhammad Hikma Abu Halima, who were driving us to the hospital.

The soldiers ordered us to get out of the tractor, and they asked me to take off my clothes. I did it and they checked all my body. I think they were looking for explosives, but we were all injured and in pitiful conditions. How could we think of carrying explosives when my younger siblings and my own children were dying?

Then, when I was almost expecting death, they shouted at me: "you can get dressed and go". They did not allow us to use the tractor. I held my sister Shahed in my arms (she was our only sister after nine brothers!) but the soldiers said that the baby was already dead, so they forced me to leave her in the car. I tried to help my wife Ghada, who was completely burned, and they forced us to walk to

<sup>22</sup> For the full testimonies on this case see below, Chapter 4, "Attacks on Civilians", 4.1, Case Study 4.

<sup>23</sup> For the full testimonies on this case see below, Chapter 4, "Attacks on Civilians", 4.1, Case Study 5.



the hospital. For about 300 meters the soldiers were shooting at our feet as we walked, raising so much dust that the wounds of my wife became full of dirt. After a while we saw a lorry on the road. It was overcrowded with people going to the hospital after the heavy attacks, but they made us room and we arrived at Shifa' Hospital....”

## 1.2. Medical Emergency Personnel

### CASE STUDY 1 – Denial of evacuation: PRCS ambulances, Rafah 15 Jan 09

#### T10

<b>Witness:</b>	Ashraf El Khatib: in charge of receiving phonecalls for ambulances at emergency number 101
<b>Gender:</b>	M
<b>Age:</b>	?
<b>Date of interview:</b>	2 Feb 2009
<b>Location of interview:</b>	The Palestinian Red Crescent Society (PRCS) ambulance centre in Rafah, south Gaza
<b>Interviewer:</b>	SVA, RS, AVM
<b>Others present:</b>	?

On the 15th of January 2009, two brothers (Ahmad, 28 and Ibrahim, 18) were hit driving a motorcycle. The brothers were travelling from Gaza to Rafah on Salah Ad-Din Road, and were hit at approximately 11:00. Muhammad, an ambulance driver, phoned regarding the brothers who were lying along the road. In order to dispatch the ambulance they had to phone the ICRC, which they did with a message that one of the motorcycle riders was already dead but the other was still alive with a severely injured chest. Time and place was communicated to the Israel Defence Force. The message from Israel was that the area was closed and no ambulances were allowed in. The response from the Israeli army took 5 hours to come through.

During the time that the first of the brothers died, in the same area, a car was hit by multiple bullets. As a result of the firing the car ran over the road and the two people remained within the car. Again the Israeli army was contacted for co-ordination of an ambulance to be dispatched to this car. The Israeli army was informed that there were now at least three wounded waiting for ambulances. This happened at approximately 16:00. A response came quickly about 10 minutes later, but was again negative. The ambulance driver decided to go anyway and two ambulances were dispatched with a driver and an ambulance assistant. They were driving very slowly in order to make themselves visible to the Israeli army. They came very close to the cases, saw the motorcycle patients lying on the ground and also saw the car with the two people inside. The ambulance came very close to this place. The ambulance personnel left the ambulance but left the lights of the ambulance on while the ambulance personnel were wearing bright red uniforms and bullet proof vests. By the time they reached the two brothers, Ahmad had died already but Ibrahim was still alive but bleeding. A bullet had penetrated the left upper chest and shoulder, there was no time for further examinations. While they were busy with the two brothers they felt the red lasers on their bodies. They had kept an eye on the nearby tank but had not noticed the soldiers in the nearby house who now directed their weapons to them. Following the laser beam they now saw the nearby house with soldiers and their military equipment. After putting those brothers in the ambulance they walked to the car to assess the other injured people in the car but the soldiers pointed at them to go back. Therefore they returned.

Another nearby ambulance from Rafah City Hospital also had to withdraw under the threat of the soldiers. Eventually a third ambulance picked up the brothers in the car. By that time both car passengers had died.

Material evidence: The witness identified the area where the incident took place on a map with a finger



10a Ashraf AlKhatib, PRCS ambulance driver. 02.02.09,  
Photo by SVA



10b Photo of map of area, 02.02.09, at PRCS office on date of  
interview by SVA

## CASE STUDY 2 – Abu AlKheir mosque evacuation: shooting prevents evacuation and injures driver.

### T11

<b>Witness:</b>	<b>Marwan Hamouda, ambulance driver</b>
<b>Gender:</b>	<b>M</b>
<b>Age:</b>	<b>?</b>
<b>Date of interview:</b>	<b>1 Feb 2009</b>
<b>Location of interview:</b>	<b>PRCS ambulance center Jabalia</b>
<b>Interviewers:</b>	<b>AVM, SVA, RS</b>

On 7th January 2009, Marwan Hamouda was on duty at the Al Awda Hospital ambulance centre. They had already moved the ambulances since the ambulance station was bombed before. At that time there were attacks close to the Abu El Kheir Mosque. Marwan was informed by a friend via mobile phone (all normal telephones were out of order) just after 20:00 (it was already dark) that there were three people injured in an area which he specified. Together with a medic, he went out to rescue the injured, putting on the red light and the siren, thereby clearly making the ambulance recognizable. When they arrived near the spot, the car was hit by a single shot, which hit the driver at the posterior aspect of his left upper thigh. The medic drove the ambulance back to the hospital, which meant that the intended evacuation did not take place. After treatment of the wound, Marwan continued work, as his wound was not very severe, and another colleague was also shot and not on duty.



11 Marwan Hamouda, PRCS, photo on date of interview by SVA

### CASE STUDY 3 – Al Atatra 30 Dec 2008: Shooting prevents evacuation

#### T12

**Witness:** Marwan Hamouda, ambulance driver  
**Gender:** M  
**Age:** ?  
**Date of interview:** 1 Feb 2009  
**Location of interview:** PRCS ambulance center Jabalia  
**Interviewers:** AVM, SVA, RS

In a completely different scenario on the 30th of December 2008 they were also attacked. After a particularly heavy attack 2 ambulances were dispatched to pick up dead and wounded in the Al Atatra area. At about 15:30 Marwan left in an ambulance, accompanied by another ambulance, after access had been authorized via the ICRC and the Israeli army through the coordination mechanism to Al Atatra area, where they had been asked to evacuate wounded people. When arriving in the area, there were many Israeli soldiers in the streets, but there was no fighting. The two ambulances were shot at by soldiers. So they withdrew.

Marwan says that a similar situation occurred that same day. Hassan and a volunteer were driving in one of two ambulances called to a circle (roundabout, location unclear to the team) to pick up patients. Since they are aware that the IDF suspects that they have weapons in the ambulance they were opening the ambulance slowly and exposing the empty stretcher within the ambulance. However, in spite of this they were shot at and they assumed that the shots were not meant to kill them but to prevent them from evacuating the injured.



12 Marwan Hamouda, PRCS, photo on date of interview by SVA

### CASE STUDY 4 – Beit Lahiya roundabout 4 Jan 09: shooting prevents ambulance evacuation and injures emergency personnel

#### T13

**Witness:** Khaled Yussuf Ahmad Abu Saada, ambulance driver (victim)  
**Gender:** M  
**Age:** 42  
**Date of interview:** 30 Jan 09  
**Location of interview:** Al Awda hospital ambulance center Telephone number retained by expert  
**Interviewers:** SAW, SVA, AVM, JT, RS  
**Also present:** Representative of Hamas intelligence, "Ibrahim".

Khaled stated that on January 4 2009 he was informed that at Beit Lahiya Roundabout, Ward-al Garbi, an "incident" had occurred. Accompanied by two First Aiders/ Paramedics, Arafah Hani Abd El Dayem (33) and Ala'a Usamah Sarhan (26) he responded to the call. On arrival at the scene they noted 5 adolescents had been seriously injured- one with a bilateral and another with a unilateral amputation of their lower limbs and proceeded to evacuate them. While evacuating patients they were hit directly by a tank shell from the rear. Khaled Saada the driver was flung from his seat due to the ensuing explosion. He noted blood on his head but was still able to walk and perform his duties. Paramedic Arafah was fatally wounded and Ala'a Usamah sustained Sciatic Nerve Injuries and was transferred to Egypt for further management.<sup>24</sup>

<sup>24</sup> AVM made enquiries about him during her visit to Egypt and was informed that he had been discharged and sent back home.



13a Al-Awda Hospital Ambulance attacked. 30.01.2009, 18.04, with witness, by SVA



13b Al-Awda Hospital Ambulance attacked. 30.01.2009, 18.04 by AVM

## CASE STUDY 5 – AlZarqa Street Jabalia, 12 Jan 09: Shooting kills and injures evacuating personnel

### T14

<b>Witness:</b>	Ahmad Abu AlFul, ambulance driver (victim and eye witness)
<b>Gender:</b>	M
<b>Age:</b>	25
<b>Date of interview:</b>	30 Jan 09
<b>Location of interview:</b>	PRCS Zemo, Jabalia, north Gaza
<b>Interviewer:</b>	SAW, RS, AVM, JT

The team met ambulance driver Ahmed Abu AlFul, aged 25, who is employed at the Civil Defence and volunteers as an ambulance driver.

On January 12 2009 at approximately 16:00 the Israeli army fired an artillery shell in Al Zarqa Street, Jabalia. Three ambulances responded and proceeded to evacuate the body of a decapitated individual with a traumatic right below elbow amputation. A volunteer who was assisting Abu AlFul was then hit by a second artillery shell which beheaded him: Dr Issa Abdul Rahim Saleh, aged 32 and a trained dentist. Abu AlFul sustained shrapnel injuries to his back and head and was admitted to Kamal Adwan Hospital in Beit Lahia. At the time of the assault Abu AlFul and his colleagues were dressed in paramedic uniforms which readily identified them as paramedical personnel and the ambulances were properly marked and distinguishable as such. In all Abu alFul felt that 4 artillery shells were fired at the ambulance on January 12 2009.

He offered the names of 2 witnesses - Eva from the UK and Quiva from Ireland (telephones retained by experts).



14a Ahmad Abu Alful, PRCS, Photo on date of interview by SVA



14b Ahmad Abu Alful, PRCS, Photo on date of interview by SVA



## 2. Attacks on medical facilities

### CASE STUDY 1 – Bombardment of Union of Health Care Committees Compound.<sup>25</sup>

#### T15

<b>Witness I:</b>	Employee, name not recorded
<b>Gender:</b>	M
<b>Age:</b>	Unknown
<b>Date of interview:</b>	31 Jan 2009
<b>Location of interview:</b>	Union of Health Care Committees Compound (A-Raeiya medical center), near Shifa hospital, Gaza City
<b>Interviewers:</b>	SAW, AVM, RS, JT, SVA
<b>Others present:</b>	Hamas intelligence representative, "Ibrahim".

Later that morning the team visited the premises of the Union of Health Care Committees. On January 5 2009 the premises were targeted and attacked by an unknown number of presumed F-16 Jets. All three of the recently delivered fully equipped Mobile Clinics were extensively damaged during the attack. The newly acquired vehicles had been supplied and fitted-out by a Spanish Government Co-operative. Although no casualties were suffered, in addition to the damaged mobile clinic a large crater was caused by the weapons deployed according to the employees of the Union.

A Compact Disc demonstrating the immediate aftermath of the attack was burnt and provided to the team. Retained at the offices PHR-Israel.

#### T16

<b>Witness II:</b>	Mahmoud Abu Rahma, AlMezan fieldworker and neighbor, eyewitness
<b>Gender:</b>	M
<b>Age:</b>	?
<b>Date of interview:</b>	1 Feb 2009
<b>Location of interview:</b>	home of the witness, an apartment overlooking the place of the strike.
<b>Interviewer:</b>	RS
<b>Others present:</b>	another acquaintance, male.

RS met Mahmoud Abu Rahma in his home (11th floor of an apartment building) in the evening. There is no electricity. Mahmoud's two small children play on a mattress in a corner of the room. It was in that corner, where the family had gathered during the attacks, because they considered it the most stable place in the apartment, in case the house would be hit by a bomb. It was not. Instead, a bomb hit three mobile clinics which were parked next to the building, where the Union of Health Care Committees, an NGO, has a Health Centre (see T15, Case Study 1 above). Together with Mahmoud's acquaintance, who does not want his name to be mentioned in this report, RS looks down from a window of a neighbour's apartment. The acquaintance describes that the bomb was released by an F 16 aircraft on 5th January 2009 at approximately 01:00. There were two bombs: one hit a parked car, half of which was thrown burning to the middle of the road. The fire brigade came a short time later to extinguish the fire, when another bomb hit the three mobile clinics, the remainders of which can still be seen from the window. The windows on that side of the neighbour's apartment were smashed by the blast wave and have been substituted by plastic sheets.

<sup>25</sup> For a further account of the attack with photos on the morning after see PHR-Israel Update 7.1.09, Air Strike on A-Raeiya Medical Center and its Clinics: 5.1.09: <http://www.phr.org.il/phr/article.asp?articleid=673&catid=55&pcat=-1&lang=ENG> (accessed 6.3.09)



16a Union of Health Care Committees mobile clinics attacked. 31.01.2009, 12.25. Photo by AVM



16b Union of Health Care Committees mobile clinics attacked. 31.01.2009, 12.28. Photo by AVM

## CASE STUDY 2 – AlWafa hospital

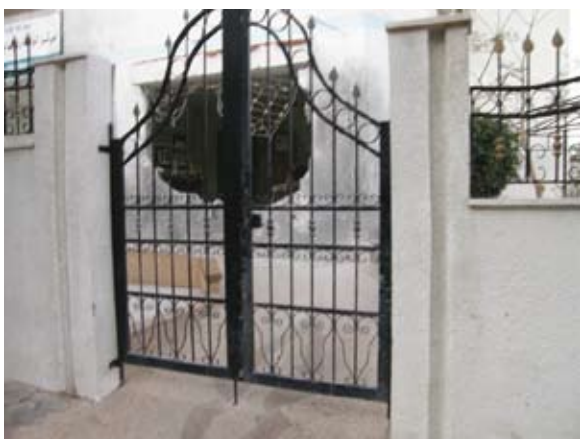
### T17

**Witness:** Dr. Khamis AlEisi, Director of the Hospital  
**Gender:** M  
**Age:** ?  
**Date of interview:** 29 Jan 2009  
**Location of interview:** Al Wafa hospital, Gaza  
**Interviewers:** RS, AVM, SVA, JT, SAW



17a Al-Wafa' Home for the Elderly at Al-Wafa' hospital. 29.01.2009, 17.01. Photo by JT

The hospital has a special department for people with disabilities and a home for the elderly. All buildings of the hospital as well as a new building, which had not yet been equipped and inaugurated, have been damaged by shooting from tanks. The Hospital was attacked on the 16th January 2009. This was the third attack on this particular hospital. The hospital was previously attacked twice, the first time in 2006 and the second time in April 2008, in one of which two nurses died when they were shot at by Israeli soldiers who were occupying a building in front of the hospital. Rooms for patients with considerable damage were shown to us.



17b Al-Wafa' Hospital 29.01.2009. Photo by JT



17c AL-Wafa' Hospital view from inside, 29.01.2009. Photo by SVA

### CASE STUDY 3 - Khan Yunis European Hospital

#### T18

**Witness:** Dr. Al Haj Abd ElLatif – Consultant Surgeon (witness).  
**Gender:** M  
**Age:** ?  
**Date of interview:** 31 Jan 2009  
**Location of interview:** European Hospital in Khan Yunis  
**Interviewer:** SVA, AVM, JT, RS

On 8-9 Jan 09 the hospital was attacked.

**Material finds:** Fragments of the artillery / missile were examined and photographed with inscription “for use in M-82” on the residual fragments. The shot/bomb landed very close to several large diesel tanks on the periphery of the hospital grounds. The hospital generator was damaged due to effects of the attack and several of the high-tech equipment e.g CT were rendered unusable for some time afterward.



18a European Hospital Khan Yunis. Piece of the rocket fired at the hospital. 31.01.2009, 16.06. Photo by AVM



18b European Hospital, Khan Yunis. Area where bomb fell and Damaged hospital generator. 31.10.2009. Photo by SVA

## 3. Type of Injuries

### 3.1 Maiming and amputations

A high number of amputations and maiming among the wounded was recorded by the team.

According to doctors interviewed by the team in Egypt, 150 amputees were referred from Gaza to Egyptian hospitals.<sup>26</sup> The PMRS in Jabalia said that it has a list of at least 165 newly disabled patients of whom at least 90 have amputations.<sup>27</sup>

According to some of the medical professionals spoken to, the reason for the high rates of maiming and amputations was partly to do with the use of anti-personnel weapons such as “disc bombs” (see 3.2 below) and/or DIME (see Chapter 6 below). The use of **drones** (unmanned aircraft) was also closely associated by medical professionals with injuries causing amputations (see also Chapter 6 below).

The team has included the cases below in order to shed light on the context of amputation injuries in this attack, and also in order to illustrate the long term effects of amputations on their victims and future need for rehabilitation.

#### CASE STUDY 1 – MKD

##### T19 (name withheld)

<b>Witness:</b>	MKD (victim)
<b>Gender:</b>	M
<b>Age:</b>	20
<b>Date of interview:</b>	3 Feb 2009
<b>Location of interview:</b>	home visit in Jabalia area, north Gaza with PMRS workers
<b>Interviewers:</b>	AVM, SVA
<b>Physical examination by:</b>	SVA
<b>Others present:</b>	PMRS workers

On the 8 Jan 09 at about 09:30 M went out to the market to buy something there. On his way there, he suddenly heard a sound, looked up and saw something coming at him, directed at his head.

He ducked and it hit his legs. He fell down and was lying on the ground for about 30 minutes before the ambulance came.

There were many other bombs and he was lying there among about another 5 people. Among them was a mother with a child, the child lost an arm in the attack.

His injuries included:

- Amputated left lower leg
- Amputated tip of the right index finger
- Hemothorax left chest
- Shrapnel in the right leg

<sup>26</sup> See 5.3, “Referrals of the wounded abroad” below. According to initial draft lists provided by the Ministry of Health, and quoted by the World Health Organisation in its Initial Health Needs Assessment (16.2.2009), 78 of the wounded were defined as suffering from amputations as a primary injury. However these lists were updated only up to 19.1.09 (one day after the ceasefire).

<sup>27</sup> Personal communication to AVM by PMRS workers in Jabalia. A list of some of the new amputees under the care of PMRS / North Gaza is available at the offices of PMRS and PHR-I.





19 Jabalia. Moustafa Ahmed Aaber (PMRS) and MKD. 03.02.2009, 12.03. Photo by AVM

He was taken to Kamal Adwan Hospital. He had blood transfusions for approximately 3 hours after which he was operated upon by a Palestinian and a Jordanian doctor. He was there for 10 days. After discharge he was followed up by a mobile clinic of Mediciens Sans Frontieres.

To the question of what he presently wishes most he answered that he wants a prosthesis for his leg. It is difficult now since the borders are closed and they cannot purchase all materials presently. Comment: There is a prosthesis workshop in Gaza, run by Handicap International, but its capacity is unclear to us.

Medical files are retained by PMRS workers

## CASE STUDY 2 – KAS

### T20 (name withheld)

<b>Witness:</b>	KAS (victim)
<b>Gender:</b>	F
<b>Age:</b>	18
<b>Date of interview:</b>	3 Feb 2009
<b>Location of interview:</b>	home visit in Jabalia, north Gaza, with PMRS workers
<b>Interviewers:</b>	SVA, RS, AVM
<b>Others present:</b>	PMRS workers



20 Jabalia. KAS. 03.02.2009, 12.32 Photo by AVM

On the evening of Monday 5 Jan 09, at 19:30 the whole family, all 11 members, were gathered in one room.

The previous days there had been many attacks in the area, but they had been spared.

It was dark already, they were watching TV. Suddenly a tank shot into the room. The rocket went through K's leg and injured many others in the room.

A door fell on her body. She felt sharp spikes in her body from the broken floor tiles. Her brother lifted the door from her and called her to come out quickly because it was dangerous to stay. However, her right leg was completely off, above the knee.

There were few ambulances available (2 ambulances took others) and she was taken to the hospital in a private car.

All 11 in the room were injured, some more, some less but she was the only one with a leg amputation.

She was in hospital for 4 days only, after which she was discharged. She has an aunt with medical experience, who is doing the dressings.

She asked for a prosthesis, perhaps she could go to the USA. She refuses to go back to the house where the accident happened, although it has been repaired.

It was further mentioned that it may be difficult for her to get married since they "have to be taken" and: "Who will take her?".

Medical files are retained by PMRS workers

### CASE STUDY 3 – SM

#### T21 (name withheld)

<b>Witness:</b>	SM (victim)
<b>Gender:</b>	M
<b>Age:</b>	53
<b>Date of interview:</b>	1 Feb 09
<b>Location of interview:</b>	Shifa hospital Gaza city
<b>Interviewers:</b>	SAW, AVM, JT
<b>Physical examination:</b>	JT

The team examined S, who was hit by a bomb on Friday 16 Jan 2009 in Gaza City. He was in his brother's house, when it happened. Ten persons were killed and 12 wounded in the same incident. At the examination S was sitting in a wheelchair fully dressed. His left foot had been amputated. He was said to have crushed his right elbow which was in a bandage.

Next to S in a bed was his brother A, 56, who had numerous bandaged wounds from that same incident. The team did not see the wounds.



21 Shifa' hospital, Gaza. SM. Photo on date of interview by SVA

## CASE STUDY 4 – OAA

### T22 (name withheld)

<b>Witness I:</b>	OAA (victim)
<b>Gender:</b>	M
<b>Age:</b>	17
<b>Witness II:</b>	MAA (brother of witness I)
<b>Date of interview:</b>	4 March 2009
<b>Location of interview:</b>	Palestinian Hospital, Cairo, Egypt
<b>Place of residence:</b>	Khan Yunis, Gaza
<b>Interviewer:</b>	AVM

When AVM entered the room O was lying down on his belly. He suffered a double amputation (one leg above the knee and the other below the knee) and his chest and back were one big burn, covering most of his body. O was very depressed. He ignored the greetings and the questions and responded only with some monosyllables from time to time. His eyes were vacant.

His brother M completed the missing details of O's account. It was obvious that both were still under the effect of trauma.

"He was injured on the 5th of January. It was around 8 a.m. O was on the street with some friends. Suddenly a drone shelled at them. His legs were amputated on the spot, both of them. That's it."

None of them talked about fire, but O presented very impressive burns on the front of the body and the back. Later on, AVM learnt from Dr. Housam Turqan<sup>28</sup> that he had arrived at the Palestinian Hospital with burns of 2nd and 3rd degree in 80% of his body. He suffered septicaemia and was on the edge of death several times. However, none of the brothers mentioned any of these details.



22 Palestinian Hospital Cairo. OAA. 04.03.2009, 16:58. Photo by AVM

28 The doctor responsible for referrals of all Palestinian wounded persons from Gaza to Egyptian hospitals. See also 5.3 below for the full interview with him.

## CASE STUDY 5 – MAG

### T23 (name withheld)

<b>Witness:</b>	MAG (victim)
<b>Gender:</b>	M
<b>Age:</b>	36
<b>Date of interview:</b>	4 March 2009
<b>Location of interview:</b>	Palestinian Hospital, Cairo, Egypt
<b>Place of residence:</b>	Al Shati, Gaza
<b>Interviewer:</b>	AVM

M told AVM that he was going back home from the mosque when he was injured. It was the 10th of January, around 7.00 p.m. He was walking on the street and there was a car circulating close to him. The car was targeted by a drone, but the shrapnel reached him, causing a double amputation.

He neither saw the plane nor the rocket. People told him that the drone had been there for a long time that day. At the beginning, he did not feel pain. In the ambulance he started feeling numbness in the legs, and he realized that they were not there anymore.

He was taken to Shifa' Hospital in Gaza and then to Al Ahly Hospita (Gaza) until his situation was stable. After a few days he was sent to Egypt, where he spent 20 days at Al Hilal Al Ahmar Hospital (Zaazik) and then he was transferred to the Palestinian Hospital.

M is a lively, energetic man. His main concern now is receiving the prosthesis, so that he can go back to Gaza "on foot", and start working again. He is an Arabic teacher and he loves teaching and working with children. He feels that the education of the new generation will have a key-role in the future of his people.

Medical documentation was not available.



23 Palestinian Hospital Cairo. MAG. 04.03.2009, 17:35.  
Photo by AVM

## CASE STUDY 6 – HTB

### T24 (name withheld)

<b>Witness:</b>	HTB (victim)
<b>Gender:</b>	M
<b>Age:</b>	24
<b>Date of interview:</b>	6 March 09
<b>Location of interview:</b>	Military hospital, Hilmiya, Cairo, Egypt
<b>Place of residence:</b>	Al Tufah
<b>Interviewer:</b>	AVM

"I was injured on Thursday 15 January 2009, at around 11.30. It was during the land operation. There were several tanks in the area and during the morning there had been shelling and shooting. Some fighters shot at the tanks and the IDF answered back with heavy artillery. In a moment of quiet I went out of the house. I saw two men I knew walking on the street; I called their attention to tell them that the area was not safe. They came up to me and we started talking about the last attacks. They told me that they worked in a nearby factory, and I teased them asking if they worked with the tanks in the yard, because it had been shelled several times.

We were still talking when a **drone** shelled us. We did not notice it before because there were many drones flying around. Immediately after the explosion I saw that both of my legs were gone. I saw my own feet on the ground. I had also shrapnel in my hands. One of the men I was talking to died on the spot, the second one was injured. I do not know what happened to him afterwards.

The ambulance arrived quickly and I was taken to the hospital. At a certain point I lost consciousness so I am not very sure about what happened from that moment on. I remember the following days like in a dream... a nightmare....There is always an image jumping into my mind. It is like a quick flash. I see the paramedics helping me to the stretcher and, as they raise me, my legs remain on the floor..."

**Physical observation:** H presents bilateral amputations under the knees and many small scars in the hands (specially the left one) and in the arms. His wounds are healing well, but he will have to remain in the hospital for a couple of months. Only when his stumps will be completely healed, the procedures for the prostheses will take place.



24 Military Hospital Al Hilmiya, Egypt. HTB. 06.03.2009, 21:24.  
Photo by AVM



### 3.2 Antipersonnel explosives: “Disc bombs”

The experts’ team both heard reports of, and encountered the direct results of an attack by an unfamiliar type of ammunition called “disc bombs” by the Gaza population, in the course of their visit to Gaza.

These munitions appear to be anti-personnel weapons, which comprise (exploding?) discs and result in severe amputations.<sup>29</sup> Case Study 1 below is unique in this report in that it describes an attack that took place during the visit of the team to Gaza, and in that a member of the team, a surgeon (SVA), was present during the care provided to one of the casualties, witnessed the weapon and was able to take samples of it.

#### CASE STUDY 1 – Abu Yussuf AlNajjar hospital in Rafah

##### T25

<b>Witnesses:</b>	SVA (personal observation) Abdallah Shehadeh, hospital director Dr. Ismail Atash, hospital doctor Victim, name unknown, unconscious.
<b>Gender:</b>	M
<b>Date of interview plus event:</b>	2 Feb 2009
<b>Location of interview:</b>	Abu Yussuf AlNajjar hospital, Rafah
<b>Interviewers:</b>	AVM, RS, SVA
<b>Physical examination and collection of material evidence:</b>	SVA
<b>Others present:</b>	professionals in operating theatre



25a Abu Yussuf alNajjar hospital, Khan Yunis. Disc fragments. 2.2.2009.  
Photo by SVA.

The team visited the region of Rafah with a fieldworker from AlMezan. While they were on the way to Rafah they were told of a bombing of a car with three injured young men. When they came to the Abu Yussuf AlNajjar Hospital they met with the hospital Director, Abdallah Shehada, and Dr. Ismail Atash, who said that 3 men had been wounded; one lost two legs and two men had lost one leg each. The two patients who each lost one leg were relatively stable and taken to the European Hospital in Khan Yunis while the third one who had lost both legs above the knee was presently in theatre in this hospital.

While RS and AVM stayed with the Hospital Director, SVA quickly joined the doctor in the operating theatre. According to the hospital staff the car was hit by a so-called drone, an unmanned airplane which bombed the car at approximately 12:00.

<sup>29</sup> After criticism was voiced against the use by the Israeli army of anti personnel “flechettes” munitions in densely populated residential areas in Gaza (petition to the Israeli High Court of Justice by the Palestinian Center for Human Rights and Physicians for Human Rights-Israel, HCJ 8990/02, rejected by the Court in 2003), and despite the fact that the State claimed this ammunition was legal, the Israeli military industry later announced its intention of gradually replacing these with APAM munitions of its own production, called Kalanit and Rakefet, intended to be shot from Merkavah tanks and taking the form of exploding discs (see Ynet, 24.10. 02, Hebrew only <http://www.ynet.co.il/articles/1,7340,L-2200793,00.html> accessed 16.3.09, and the Israel Military Industries website, <http://www.imi-israel.com/Business/ProductsFamily/TankAmmunition.aspx?FolderID=31&d oclD=110> accessed 16.3.09). However, it is unclear whether these were the munitions used, since according to the reports given to the team in Gaza, the ammunition observed was shot from a drone, not a tank. Moreover, it was unclear whether the discs themselves exploded or were dispersed by explosives (see photo attached to Case Study 1, T25).



25b Abu Yussuf alNajjar hospital, Khan Yunis. Amputation by weapon. 2.2.2009. Photo by SVA.



25c Abu Yussuf alNajjar hospital, Khan Yunis. Dual amputation by weapon. Photo during surgery, 2.2.2009, by SVA.

**Physical/medical observations:** In theatre SVA observed this patient who lost both limbs above the knee. He was in a critical condition, very oedematous from crystalloid infusions since there was shortage of donor blood for transfusion. The management of the patient was not ideal as a result of blood loss (which could not be adequately replaced); the tourniquet which had been applied to both limbs consisted of urinary catheters. Furthermore, the intra-operative urinary catheter had dislodged and slipped out of the bladder, preventing measurement of the intra-operative urine production (an important measure of the circulation). The present doctors were debriding the stumps of both legs desperately. There was ongoing blood loss since both limbs were completely destroyed. After struggling for a time the patient had a cardiac arrest and further cardiopulmonary resuscitation was initiated but was unsuccessful. He was declared dead shortly after SVA left the operating theatre.

**Material evidence:** Samples of this patient's legs were taken; two bone specimens, one subcutaneous specimen, one skin specimen and a piece of the weapon, a disc which was lodged in the leg (see Appendix 3).

## CASE STUDY 2 – AAH

### T26

<b>Witness:</b>	AAH (victim and eye witness)
<b>Gender:</b>	M
<b>Age:</b>	45
<b>Date of interview:</b>	3 Feb 2009
<b>Place of interview:</b>	Beth Hamin village, Waseem Basil Street 9, close to AlTouba Mosque (The house with the broken stairs). Telephone of witness and brother retained by team
<b>Interviewers:</b>	SVA and AVM

On the first day of the land offensive, 3 Jan 09, the family gathered to mourn the death of one of the cousins killed during the attack of 27 Dec 08, the attack on the police.

It was about 19:30 in the evening and already dark. There were 8 people sitting in a circle in front of the house. Suddenly, they heard the noise of a **drone** (unmanned small airplane) and a bomb was fired from it. It hit the ground first and then exploded in the middle of the group.

Two died in this attack, the witness' son and his cousin, and all others ended up with amputated limbs.

They were attacked in front of their own house, there was no fighting anywhere else at the time. The youngest victim was 13 years old.

Ambulances took about 15 minutes to arrive and they took him to a small clinic in Beit Hanoun, then to Kamal Adwan hospital and finally to Shifa hospital. He had lots of shrapnel in the body, mainly in the legs. His left leg had to be amputated.

**Injuries:**

- Amputation right leg
- Shrapnel left leg

The explosion cut his brother in half. He was convinced that this bomb exploded with discs, sharp like razors and said that some of the neighbors had unexploded shells with many discs inside them. He went from Shifa Hospital to another local hospital today (before the team arrived) where the wound was debrided.



26 Beit Hamin village. AAH. Photo on date of interview by SVA.

### 3.3. Burns

Special attention was given to burns in the course of the attack due to reports of the use of white phosphorus,<sup>30</sup> phosphorus observed in the air and on the ground,<sup>31</sup> reports of phosphorus injuries,<sup>32</sup> and finally the admission by the Israeli army of its use.<sup>33</sup>

Due to the long time that had elapsed between the injuries and the arrival of the experts' team, it was not possible to tie specific observed burns injuries to white phosphorus with the technical resources available to the team. Indeed, it is unclear whether even advanced laboratory techniques can make such a connection at such a late stage since, ideally, identification should be made within hours of exposure.

30 For a description of doctors' reports and of evidence seen by the experts for the presence of white phosphorus in Gaza see also Chapter 6, "Atypical Weapons" below.

31 See e.g., Human Rights Watch, 10.1.09, <http://www.hrw.org/en/news/2009/01/10/israel-stop-unlawful-use-white-phosphorus-gaza> (accessed 16.3.09), and Amnesty International, 19.1.09, <http://www.amnesty.org/en/for-media/press-releases/israeloccupied-palestinian-territories-israel039s-use-white-phosphorus-a> (accessed 16.3.09).

32 See Chapter 6, "Atypical Weapons" below, and Haaretz article by Amira Hass, 15.2.09, <http://www.haaretz.com/hasen/spages/1061720.html> (accessed 16.3.09).

33 The Israeli army admitted using white phosphorus but claimed it was not used in a manner violating International Humanitarian Law. It announced it would open an investigation into the military's conduct on this issue in Gaza. See e.g., Israeli news website NRG, 19.1.09, <http://www.nrg.co.il/online/1/ART1/842/440.html?hp=0&loc=2&tmp=1106> (Hebrew only, accessed 16.3.09).



Nonetheless the experts state that the reports of the doctors regarding burns treated are consistent with the use of white phosphorus.<sup>34</sup>

Moreover, tissue samples were collected from burn victims, analysed by the team in local laboratories and then sent for further analysis in laboratories in Denmark and South Africa (see Appendix 1 for the list of slides sent for analysis and address of laboratories). Below is a list of slides examined by the teams in laboratories in Gaza.

### **Tissue Samples: initial microscope examination of slides:**

JT, SAW visited the Pathology Department of Shifa Hospital, 2 Feb 09, 11.00, together with the head of department Dr. Zohair R. El-Shorafa, another pathologist who had been trained in Turkey, two young postgraduate trainees and a lab technician.

The purpose of the visit was to examine histology slides of samples (biopsies) taken out by a plastic surgeon from burn cases. They met the surgeon who refused to give his name. He gave no reason for his refusal.

They moved the tables together, and all were sitting by a microscope with four extensions so five persons could examine the same slide at the same time. In the following JT has recorded all that was written in the pathology records. In "the microscope examination" only JT's findings are described.

### **Preliminary findings from slides examined at Pathology department, Shifa Hospital, by JT, SAW.**<sup>35</sup>

0. Patient AH, 10-year old girl. Explosion injury with burns, Phosphorus, 14 Jan 2009, 63/09 lower limb.  
The microscope examination revealed tissue without any epidermal changes suggesting burns. However, there was subcutaneous bleeding and recent inflammatory reaction consistent with burns.  
The following slides were all numbered consecutively.
1. OO, M., Explosion Injury. Deep burn, chest wall, necrosis of skin, muscle and sternum, 14 Jan 2009 ?phosphorus  
The microscope examination showed necrotic tissue, inflammatory reaction especially around the vessels and a few small fibrin thromboses.  
These findings were consistent with burns but not diagnostic of it. The fibrin may indicate disseminated intravascular coagulation (DIC).
2. KM Burns, ?phosphorus, all limbs, chest wall, face, incident 12 Jan 2009, date of biopsy 17Jan 2009, forearm, Debridement.  
The microscope examination showed uncharacteristic inflammation and a few fibrin thromboses consistent with burns.
3. NDH, debridement, hands, expl. inj. Deep burn, ?Phosphorus, biopsy 14 Jan 2009.  
The microscope examination showed masses of necrotic tissue. Not inconsistent with burns.
4. OR Biopsy 14 Jan 2009, Debridement, thigh, expl. inj. Crushed both thighs, bilateral amputation above knees.  
The microscope examination showed striated muscle tissue, cross striation visible, no sign of burns.
5. ADM, Expl. Inj, Sent 27 Jan 2009  
The microscope examination showed tissue with many hairs, only slight inflammation, in epidermis very slight elongation of nuclei. Not inconsistent with burns
6. ZJ Crush injury, arm, expl. inj. Biopsy 14 Jan 2009.  
The microscope examination showed decomposed tissue that had probably not been fixed properly. Non-conclusive
7. MJ, expl. inj. 15 Jan 2009, Biopsy 15 Jan 2009  
The microscope examination showed striated skeletal muscle. No heat changes or other injuries. Non-conclusive

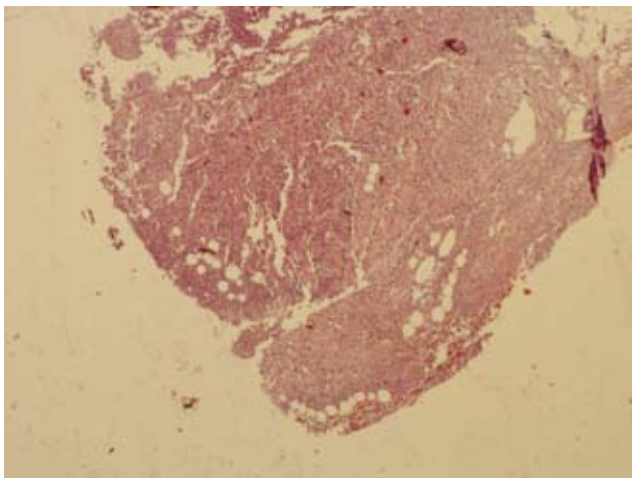
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<sup>34</sup> e.g., Comment (SAW): Phosphorus auto-ignites when it is exposed to oxygen and continues to burn until there is no further phosphorus/oxygen, emitting heat causing a thermal burn and also a chemical burn as it is oxidised to phosphoric acid.

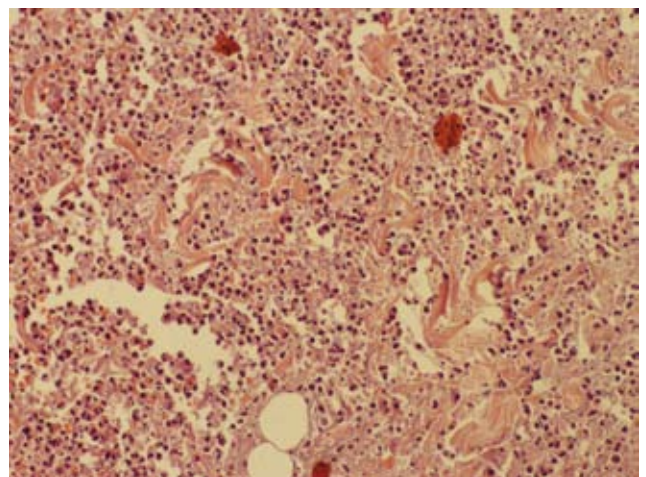
<sup>35</sup> Please note these are preliminary finding only, to be re-examined at laboratories for final assessment. Names of patients are withheld by the team and written in initials for reasons of medical confidentiality

8. Name not given, expl. inj. "crushed" lower limb, 16 Jan 2009, biopsy 16 Jan 2009.  
The microscope examination showed much cross striated muscle tissue, recent hemorrhage. No characteristic burn lesions.
9. Name not given. Expl.inj. The patient brought dead and completely burned 15 Jan 2009. Biopsy date 15 Jan 2009  
The tissue is decalcifying, therefore no available slide yet.
10. Name not given. Expl. inj. Dead body, completely charred 15 Jan 2009, biopsy 15 Jan 2009.  
The microscope examination showed recent ulceration of surface and hemorrhage.  
Consistent with burn.
11. Name not given. Expl. inj. Dead on arrival. Tissue is decalcifying. No slide available yet.  
12, 13 and 14 are all from MAJ, Expl. inj. Deep burn, all limbs ?Phosphorus, Debridement of deep burns, Incident 11 Jan 2009, Biopsies 14 Jan 2009,
12. subcutaneous tissue from lower limb. The microscope examination showed ulceration of the surface without tissue reaction.  
There were several black particles on the surface and deeper into the tissue.
13. Lower limb, ?Phosphorus, many black particles.
14. Subcutis lower limb. Many black particles, also tissue necrosis and fibrin.  
JT comment: The black particles in 12, 13 and 14 may well be carbon residues due to the heat effect. However some of them were in the deeper tissue. We have never before in the microscope seen phosphorus burns. It is likely that if phosphorus reacted in the tissue, then it would form some chemical compound with oxygen. We will try developing methods for Phosphorus detection in tissue and apply them on the mounted samples that were sent to laboratories in Denmark and South Africa.

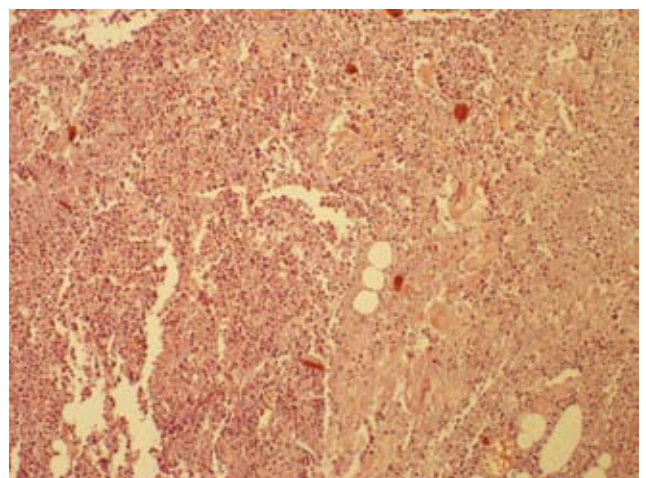
### Microscopy photos:



**M1 Slide 1. Subcutaneous tissue from a male burn victim. Necrosis and inflammation. Photo by JT**



**M3 Slide 1. Subcutaneous tissue from a male burn victim. Necrosis and inflammation. Photo by JT**



**M2 Slide 1. Subcutaneous tissue from a male burn victim. Necrosis and inflammation. Photo by JT**

**Comment, JT:** The photos are in no way proof of burn or phosphorus burn but fully consistent as they show necrosis and inflammatory reaction.

### **Patients' examinations:**

Below are two cases of suspicion of phosphorus burns, as described by SAW on Feb 3 2009:

#### **Patient 1 Shifa hospital**

**Name:** SSA

Female aged 16 years Grade 10 Faroojd School Jabalia, Gaza

**Also present:** translator Reem Salahi, lawyer from USA; Sister Asma 17 years old from Beit Lahiya.

**History:** 10.1.09 approximately 20.00. She was asleep and awoke to the sound of canons firing, fire in laundry could not be extinguished with water but with sand. Sustained facial and lower limb burns. Many immediate family members were in the house and also 11 other family members. All 18 family members were killed during the assault including her mother. Attack started with a drone and followed by an Apache helicopter.

Initially she was admitted to Kamal Adwan Hospital and then transferred to Shifa Hospital. Treatment: Debridement followed by skin grafting of both lower limbs.

**Diagnosis:** Possible Phosphorus Burns?

**Interpretation by team: Inconclusive. Medical report retained at the offices of PHR-Israel**

#### **Patient 2 Shifa hospital**

**Name:** MAJ

Male aged 18 years from Tal al Hawa area, Gaza city.

**History:** Admitted 11.1.09 with multiple burns on body due to ??White Phosphorus plus shrapnel in the right upper limb.

**Treatment:** debridement and suture. Ultrasound Abdomen Normal.

**Operation Notes:** Explosion injury ?Phosphorus

**On examination:** Multiple raw areas:

chest,

left hand (full thickness) burn also injury to tendon and bone.

left lower limb: possible crush injury-muscles



**B** Shifa' hospital. Histology Team for tissue samples, 2.2.2009. Photo by JT

**Interpretation by team: Inconclusive: await histology results from laboratory work (samples 12-14 above).**

Dr Nafez Abu Sha'ban, director of the burns department at Shifa' Hospital, retains photos from the date of admission.

### 3.4 Secondary injury to civilians

In the course of the mission the experts became aware that the attack had led to a total disruption of normal life for all civilians in the Gaza Strip.<sup>36</sup> One of the manifestations of this was injuries caused at home as secondary effects of the attack. We have chosen to include these two physical examinations and testimonies in the report as an illustration of the usually unreported far-reaching consequences of the attack.

#### CASE STUDY I – hot water burns

##### T27 (name withheld)

<b>Witnesses:</b>	IAA (victim), her mother and aunt.
<b>Gender:</b>	F
<b>Age:</b>	5
<b>Date of interview:</b>	1 Feb 2009
<b>Location of interview:</b>	Shifa hospital, Gaza City
<b>Physical examination:</b>	SVA
<b>Interviewer:</b>	SVA
<b>Also present:</b>	Nahed Abu Eyyada (interpreter)

The attention of SVA was drawn to this child by loud screaming from this girl while the anaesthetic of the wound-dressing a little while before was wearing off.

According to the patient's mother and aunt, this is a little 5 year old girl who was injured on the 5th January in an area close to the sea, called El-Mashta.

Because of the previous bombings there was no electricity nor hot water available. The mother of Iman therefore boiled water on a make-shift heater in order to use the hot water to wash clothes.

It was in the evening, and Iman was playing with her brother in an adjacent room. The whole apartment was dark because of the electricity cuts.

When there was a sudden arrival of Helicopter(s) the girl panicked and ran to hide in the room her mother was busy in.

Unfortunately, because of the rush and the darkness she knocked over the pot with boiling water and was severely burned by the water, her trunk and both legs.

Physical examination: The burns are extensive and affect both thighs.



27 Shifa' hospital. IAA. Photo on date of interview by SVA

<sup>36</sup> See Chapter 7 below.

## CASE STUDY 2 – Paraffin stove explosion

### T28 (name withheld)

Witness I:	SSJ (victim)
Gender:	F
Age:	2
Date of interview:	1 Feb 2009
Location of interview:	Shifa hospital, Gaza City
Physical examination:	SVA
Interviewer:	SVA
Also present:	mother, aunt and grandmother. Nahed, PMRS, was translator
Witness II:	Dr. Nafez Abu Sha'aban, treating doctor and head of burns department, Shifa hospital.
Date of interview:	3 Feb 2009
Location of interview:	Shifa hospital
Interviewers:	SVA, SAW

SSJ, 2 years, Burned by hot oil from exploding paraffin stove. S is a 2 year old who lives in an area called "il Monte" close to the border of Israel. During the 3rd week of the war the girl was within the house with her brother when the paraffin stove exploded. The paraffin stove was used because of the lack of electricity. Both sustained wounds, the boy only minor and has subsequently been discharged, S however sustained 14% body surface area, extensive facial burns. The burns are partial to full thickness and extend almost over the entire face. Her eyes were spared.

S will almost certainly require plastic surgery to her face and will not have a normal life. She is disabled for life.

**Note:** During the physical examination at the hospital, the family claimed that S had been injured by white phosphorus. A further conversation with the treating doctor clarified that the burns were caused by hot oil during an accident at home.



28 Shifa' hospital. SSJ. Photo on date of interview by SVA



## 4. Attacks on civilians

### 4.1 attacks on non-combatants by the Israeli army

#### Overview

The team recorded a large number of cases in which non-combatants had been attacked by the Israeli forces on the ground for no apparent justifiable reason. In several cases the attacks were clearly intentional. The following reports include the full accounts of some of the testimonies excerpted in previous chapters, and other accounts not yet related.

#### CASE STUDY 1 - Samouni Family<sup>37</sup>

##### T29

<b>Witness I:</b>	Emad Samouni, Poultry Farmer, eye witness and survivor
<b>Gender:</b>	M
<b>Age:</b>	39
<b>Date of interview:</b>	31 January 2009
<b>Location of interview:</b>	Al Samouni Family, Al Zaitoun Neighborhood, Gaza
<b>Interviewers:</b>	AVM, SAW, RS, JT
<b>Also present:</b>	Jamal AlRozi, PMRS, "Ibrahim" of Hamas <sup>38</sup>

Bombing of the area by the Israeli army was started at 01.00 on the night between 3 and 4 January 2009 by tanks and helicopters (Apache). The approach of the tanks could be sensed by vibration of the ground, tanks appeared after a while shooting ahead of them. In the house there were Emad Samouni, his wife and their ten children. He then wanted to divide the children into different rooms so, in case the house was shelled, not all of them would be killed, but the children refused to be divided. They gathered all in the same room and remained there.

At approximately 05.30-06.00 a helicopter fired a shot through the corrugated asbestos roofing. He then called to his brother to help in a nearby house and they all crawled to this building. In total they were approximately 46 to 50 people present. At approximately 06.10 IDF soldiers appeared and gathered them in only one room. Emad spoke to the soldiers in Hebrew which he learnt when he worked in Israel. They then tied his hands with a plastic tie behind his back until his hands were blue and he lost feeling in them. A soldier cut through the plastic tie and in the process injured his hands.

**Observation:** witness pointed out the injury when being interviewed.

They then retied the tie and kept all 46 people in the room for Sunday and Monday with no water, food, toilet access or footwear. On Monday, approximately 10.00 they heard a bomb exploding and many women screamed. The house in question was totally destroyed.

Mousa, Emad's 19 year old relative (student) and another woman (Maysa, 21 years old) of the family carrying a baby, left the other house and saw all his family members' death after the bombing and he became very emotional and hysterical and started shouting and screaming. The soldiers kept him with the others. Later on the soldiers released all the others and kept Mousa; when Emad protested, they kept him also. The IDF soldiers instructed the people to walk out with a white flag and threatened that if they told anybody that the IDF was in the area they would kill Emad and Mousa. Emad suspected the soldiers arrived in the area by parachute or with the tanks

<sup>37</sup> This case involved several different houses and events and was widely researched and covered by the press.. For a media account describing the attack in its entirety see e.g <http://www.washingtonpost.com/wp-dyn/content/article/2009/01/26/AR2009012602481.html> (accessed 16.3.09). For other testimonies by members of the family see e.g., B'Tselem, [http://www.btselem.org/English/Testimonies/20090104\\_Soldiers\\_kill\\_Atiyyah\\_a\\_Samuni\\_witness\\_Fahed\\_a\\_Samuni.asp](http://www.btselem.org/English/Testimonies/20090104_Soldiers_kill_Atiyyah_a_Samuni_witness_Fahed_a_Samuni.asp) (accessed 16.3.09)

<sup>38</sup> See above, Introduction, on the presence of a de facto government intelligence official in at some of the testimonies

and proceeded to clear the area with bulldozers.

Emad asked for water to drink but instead of offering him the water to drink one soldier pushed the bottle violently to his face and it was spilled all over his face and he was not able to drink any. The soldiers around him discussed in his presence how they were going to shoot him through one ear so that the bullet would pass out through the other ear. They assaulted him by repeatedly kicking him on his ankles and also his back with boots and stepped on his left ankle that had previously been injured.

**Observation:** An old scar was noted on his left ankle where he was kicked.

He was further beaten with rifles and threatened when the laser from the gun was pointed in his direction and he saw it on his body but fortunately they did not shoot him.

Emad and Mousa were kept in the house and they thought that the soldiers were placing explosives in the house to detonate it. Soldiers were changing all the time while they were in the house without shoes, their hands tied, and blindfolded.

Mousa and Emad were finally released on Wednesday [7 Jan 2009] at 10.00. Emad said that while walking toward the main road, supposedly blindfolded, he saw his brother lying in the road. They discovered 29 relatives had been killed in the other house where the explosion had taken place. Amongst the dead were his brother, nephews, sister, brother in law and some cousins. The dead bodies were moved to another house. The youngest among the dead was 6 months old and breast-feeding.



29a Zeitoun. Samouni Family. 31.01.2009, 13.31. Photo by AVM



29b Men of the Samouni family during the interview with expert team. Photo on day of interview by SVA

## T2

<b>Witness II:</b>	Mas'ouda Samouni,
<b>Gender:</b>	F
<b>Age:</b>	20
<b>Date of Interview:</b>	31 January 2009
<b>Location of interview:</b>	Samouni Family, Al Zaitoun, Gaza
<b>Interviewer:</b>	AVM
<b>Also present:</b>	Four other female members of the Samouni family were present during the interview which was undertaken during the ceremony of mourning (A'zza), including one who was also present in the collapsed house and a 14 year old teenager who was injured on the scalp.

Mas'ouda related that the attacks began the night of the 3rd of January. During the hours of the night they could hear the Israeli soldiers moving around on foot and shouting to each other in Hebrew. They could see some of them around the house and on the roof of the surrounding buildings. They were afraid for the other members of the family because most of the residents of the area belong to the extended Samouni family.

Mas'ouda's family and some others relatives remained together in the same room of the house during the night. After a few hours, the soldiers banged on the door and then shot at the door because no one from inside the house answered. Mas'ouda's husband then opened the door, and they were told by the soldiers to move to one of the adjacent houses, belonging to Talal Samouni. They all moved then and waited for some more hours, until they were told to move again to the house of one of the other family members (Wa'el Samouni), which was the biggest one in the area. They were approximately 60 people in the house, all of them kept in the same room. During the initial first hours they managed to prepare food from the poultry kept in the house, and gave that to the many children kept hostage in the house. Having eaten the food prepared, the supply of food ran out and they were kept against their will, without food and water, for almost 24 hours. When the children became hungry and thirsty and started crying, some men of the family tried to reach the water tanks, kept beside the house, to bring in some water, but they were shot at. Some of them came back injured, and one of them was killed by the bullets fired at them.

At a certain moment (they could not state the precise time), a loud explosion was heard and they could see flames emanating from the third floor of the adjacent house, belonging to one of the Samounis. Some men tried again to go to rescue them, but they were immediately shot at by the soldiers, fatally wounding Mas'ouda's husband and injuring some of the other members of the family.

All the women interviewed agreed that there were some soldiers dressed like the Hamas combatants (uniform and red *kuffeyah*/Palestinian scarf). The men that were kept in the house, thinking that they were Hamas fighters, started shouting at them in Arabic, asking them to leave the area, and telling them that there were many women and children among the hostages. The Samounis were asked to approach them and, when they got closer, the alleged Hamas combatants uncovered their uniforms and took off their *kuffeyahs*, showing their IDF (Israel Defense Force) uniforms. Then, the IDF soldiers asked the Samouni men to display their ID. Some of the men were kept and others were allowed to go back to the house with the women and children.



2 Zeitoun. Mas'ouda Samouni, on right. 31.01.2009, 13.35.  
Photo by AVM

On the morning of the 4th of January, more than 24 hours after the appearance of the soldiers on the scene, a loud explosion was heard and the entire house collapsed. During the explosion, Mas'ouda's 10 month old baby was killed while sitting on her lap. When she realized that her baby was dead she was so shocked that she could only hand the child to one of the young women present with her in the house and say to her: "Istashhada" ("He was martyred"). This young lady was also present at the time of the interview. 28 other members of the family died during the attack.

A 14 year old adolescent who had been under the collapsed house for three days with the deceased, was present at the interview and verified the facts.



## T30

<b>Witness III:</b>	Islam Samouni
<b>Gender:</b>	F
<b>Age:</b>	5 years
<b>Date of interview:</b>	31 January 2009
<b>Location of interview:</b>	Together with witnesses at the mourning area, Samouni family, Al Zeitoun, Gaza
<b>Interviewer:</b>	AVM

Soon thereafter, a five year old girl called Islam Samouni narrated during play at the kindergarten how she had lost her parents and four siblings during the same massacre. Her narration was consistent with the information supplied by the adult females during the interview.

Islam showed AVM her house, the only building standing in the area. It was the same large house where the third floor was bombed and was aflame at the time. She said that she was at home with her parents and siblings. They were all gathered in a room because they were afraid of the shooting and the soldiers all around them. Then they were commanded to leave the house and go to Talal Samouni's house. After a few hours they were again asked to go to the largest house (Wa'el Samouni's house) and they met there many other members of the family.

She mentioned that at the time of the hostage situation she was hungry, thirsty and scared, but was comforted by the presence of her parents. After a long time in the house (she could not determine) there was a huge explosion and the house in which they were kept collapsed.

She named in a chanted list all the members of the family who died during the attack: her father, her mother, her four brothers and sisters. Only her sister in law and a niece survived.<sup>39</sup>

Islam's niece, daughter of Maysa, aged less than a year old, was injured and lost three fingers of her left hand.



30 Zeitoun. Islam Samouni. 31.01.2009, 14.40.  
Photo by AVM

<sup>39</sup> According to a testimony given by Maysa Samouni to Israeli human rights organization BTselem, Mousa also survived. See [http://www.btselem.org/english/testimonies/20090104\\_soldiers\\_kill\\_and\\_wound\\_members\\_of\\_a\\_samuni\\_family.asp](http://www.btselem.org/english/testimonies/20090104_soldiers_kill_and_wound_members_of_a_samuni_family.asp) (accessed 16.3.09).

## T31

<b>Witness IV:</b>	name unknown
<b>Gender:</b>	F
<b>Age:</b>	unknown
<b>Date of interview:</b>	31 January 2009
<b>Location of interview:</b>	Alsamouni family, AlZaitoun, Gaza
<b>Interviewer:</b>	AVM

One of the women present at the interview was kept by force in the same house as Emad Samouni (Witness I). She mentioned that her own sister delivered a baby during the hostage situation, surrounded by more than 40 family members, presumably the labor was induced prematurely by the stress and trauma of the hostage situation. The woman suffered severe bleeding after the delivery, but fortunately it was controlled spontaneously and both mother and child were in good health. The woman was injured in the foot during the attack, so when they were allowed to leave the place she had to be carried by her relatives with her newborn baby. They were taken to the hospital and after examination they were declared healthy.

This woman lost her father and other family members in the Samouni's house that collapsed.

AVM: Another woman belonging to the family was present during the interview, but she was not present during the attack.

## T32

<b>Witness V:</b>	Muhammad Wael Fares Al Samouni (victim, eye witness)
<b>Gender:</b>	M
<b>Age:</b>	5 years
<b>Witness VI:</b>	Cousin of witness V, Rami Maher Hamdi Al Samouni (witness)
<b>Gender:</b>	M
<b>Age:</b>	25
<b>Date of interview:</b>	6 March 09
<b>Location of interview:</b>	Military hospital AlHilmiyeh, Cairo, Egypt
<b>Place of residence:</b>	AlSamouni, Al Zeitoun area, Gaza
<b>Interviewer:</b>	AVM

**Physical observation:** Muhammad came to play with Bara<sup>40</sup>. His right arm had many scars and it hung down in an abnormal position.

Bara's father explained to AVM that Muhammad belongs to the Samouni family and had lost his father and two siblings in the massacre of the Samouni family in Al Zeitoun. Since there were many casualties in the family, it was very difficult to find someone to come to Egypt with him. Finally his cousin Rami Samouni agreed to come with him, despite the fact that he was also in the shelled house, and had lost his own wife, his father, several siblings and many relatives in the massacre.

Rami was very emotional and clearly reluctant to repeat his account, but in the end he agreed to do it:<sup>41</sup>

"It was the 3rd of January. Soldiers had been around in the area already for some time. We were in my house, on the second floor, when we realized that the soldiers had taken over the building, entering from the roof. They were paratroops and we were very scared when we found ourselves caught up in our own houses. They started knocking at the doors and shooting if we did not answer. There followed a long time of confusion and fear. I cannot tell how long it was. They entered the houses crashing everything they found on their way. We saw them shooting and setting fire in some of the houses. They asked for our ID and registered us and our belongings.

40 See Bara's testimony, Case Study 9 (T42) below.

41 The team wishes to stress here that it has not had an opportunity to confirm the content of this testimony from other sources. It is presented as it was told to AVM.

We did not know what they wanted from us. There were no fighters among us; just normal people. For many hours they gathered us in some houses. From time to time we were ordered to move to another house where many other relatives were already kept as hostages. We were taken to Wa'el's house. My cousin Wa'el was Muhammad's (witness V's) father. The house was quite big, but there were something like 120 people inside. There were some soldiers who could speak Arabic, and told us not to be afraid because we were safe in that house.

At a certain moment, they asked for the ID of my cousin Atiya, when they saw it they shot at him once on his front and then a burst on his chest. He fell down dead. His son (he couldn't remember his name), 12 years old, started shouting hysterically to the soldiers and threw something at them. I think it was a stone. Then they shot at him and he fell down close to his father."

AVM asked Rami if he saw the soldiers shooting at Atiya and his son, and he said that he saw it all with his own eyes.

"The third day we were in the house, without food or water, the situation became unbearable. The children were crying for food and water and my grandfather could not take it anymore. He was an old man, 75 years old. He started shouting at the soldiers and asking them to release at least the children. He said that we were simple people and we would all leave and leave them the place if they freed us. They started shouting at him and insulting him, he reacted and lost his temper. Then, the soldiers shot at him on his front and he died."

AVM asked Rami if he was in the room when it happened, if he had seen it himself or someone had told him about it. He repeated that he was present and he saw how his grandfather was shot dead. He continued:

"We started shouting and revolting at their cruelty and they became mad at us. They started taking the children and giving them to their mothers. They had the mothers hold them on their laps and then they shot at the babies. I saw some of our children die this way. There was one three months old, another six months old... the eldest of those shot at was only one year old."

AVM interrupted Rami for the third time and asked him if he had seen this scene himself. He swore that he did.

AVM comment: I am not sure if this part of the testimony is true or an elaboration of the tragedy.

"We could not stand it. We were sure that we were going to be killed, all of us, so we started insulting the soldiers and throwing stones at them. There was a lot of tension and anger. At that moment the house was shelled by tanks and Apaches and it collapsed, engulfed by thick smoke and dust.

I came out from the ruins stumbling. I had no doubt that they would kill me, so I decided to get out of the place, and started helping some of the other family members to come out from the rubble. We were trying to find a car to reach the hospital when I lost consciousness. I woke up in Shifa' Hospital... I have no idea how long I was in coma. The doctors let me out as soon as I could walk. I

ran back to see my family, to find out that my wife, my father, two of my brothers, my aunt and many other relatives were no more..."

At this point, Rami broke into tears and could not go on. He tried several times to complete the list of relatives who had lost their lives in the Zeitoun attack, but he was too emotional. AVM remained for a while with him in silence.

When AVM was talking with some other patients of the ward, little Muhammad Samouni came up to her and sat down close to her. He interrupted the conversation and stated:

"Also Daddy, my brother Hossam and my sister Rifkah died. Now they are martyrs in Heaven." When asked where his mother and other siblings were, he answered that they are all in Gaza.



32 Military Hospital Al Hilmiya, Egypt. Muhammad Samouni. 06.03.2009, 19:58. Photo by AVM

## CASE STUDY 2 - the family of Dr. Az-Addin Abu AlAish<sup>42</sup>

### T4

<b>Witness:</b>	Shehab Addin Abu AlAish, brother of Az-Addin Abu AlAish.
<b>Age:</b>	Unknown
<b>Date of interview:</b>	30 January 2009
<b>Location of interview:</b>	apartment of Dr. Az-Addin Abu AlAish, Zemo Junction, Salah A-Din Street, Jabalia, north Gaza. Telephone retained by experts
<b>Interviewers:</b>	RS and SVA

Dr. Az-Addin Abu AlAish, expert obstetrician working for WHO in Israel and the Gaza strip, to whom the apartment belonged, was not present during the visit.

The apartment was hit by a rocket fired from a tank on a hill nearby in Jabalia on 16 January 2009 between 16:45 and 17:00 h. The doctor was not present during the event, but his children, his wife and his cousins were in the apartment.

The rocket crossed one of the rooms in which four children were gathered together. The four children were all girls, ages 14, 15, 16, 21 years and all four were killed. Four other children in another room were injured. Of the girls who died two were defaced and not recognizable.

Apparently people in the area had been prompted to leave the premises, but people in this building refused to do so, since the house he presently occupies is already his second house and he did not want to become a refugee again. As he was regularly called by the Israeli TV for reporting, he also was at the moment of the attack which gave him the chance to tell what happened and to ask in public to stop the attack.

The children who demised were severely mutilated and had to be identified by the clothes they were wearing since two of them lost their faces.

**Material finds:** Blood could be found on the ceiling of the room as well as pieces of hair on concrete rubble and on the staircase.



4 House of Dr. Az-Addin Abu AlAish, Zemo-Jabalia.  
Photo 30.01.2009, 18.17 by AVM

**Physical observations:** The rocket seemed to have crossed the room and destroyed parts of two walls and most of the furniture inside (see photos). It appeared (as can be seen on the pictures) a specific targeted attack, since the adjacent apartments were left remarkably intact.

Shihab still carries shrapnel in his body (mainly the legs) which he does not want to have removed but wished to keep as a remembrance and as proof of what took place.

A sworn affidavit of this event is retained by Palestinian human rights organization AlMezan.

<sup>42</sup> See notes 14 and 15 in Chapter 1 above for detailed background information regarding this event.

### CASE STUDY 3: Abed Rabbo Family<sup>43</sup>

#### T5

<b>Witness:</b>	Souad Abed Rabbo
<b>Gender:</b>	F
<b>Age:</b>	54 <sup>44</sup>
<b>Date of interview:</b>	Feb 2 2009 9am
<b>Location of interview:</b>	Private house, Gaza City
<b>Place of residence:</b>	Abed Rabbo neighborhood, Jabel Al-Kashef, north Gaza
<b>Interviewers:</b>	JT, SAW
<b>Also present:</b>	Fred Abrahams of Human Rights Watch, son of witness Khaled Muhammad Monib Abed Rabbo and another son, Hossam. After a while her husband also came into the room. There were a number of women in the room and in the neighboring rooms. A daughter helped with the physical examination. The interpreter was Fares.

This interview followed a visit to the home of this family by JT (30 January 2009), in which the area of vast devastation in Jabel Al-Kashef was surveyed, focusing on the house of the Abed Rabbo family. Most of the houses in that area were blown up. JT saw remains of what was said to be an Israeli anti-tank mine in the remains of the house.<sup>45</sup>

Feb 2 2009. Souad Abed Rabbo told the team that on 7 Jan 2009 there were 30-40 people in the house in Jebel al-Kashif. On the first day of the "ground invasion", 4 Jan 2009, the Israeli tanks had already passed the house. Now they experienced tank shelling around the house and Israeli soldiers shouting that they should all come out of their houses. She, her daughter in law (married to her son Khaled) and her three granddaughters went out of the house, Souad and the daughter in law and her 7-year old girl each holding a white flag above their heads. The girls were Souad,<sup>46</sup> 7, Samar, 4 and Amal, 2. Outside the house there was an Israeli tank. It had come from the west towards the house that was facing north. It was 11.30 – 12.00. The tank was in the garden about ten meters from her, when she stopped to receive permission to leave unharmed. On her right side were the three girls, behind her was the daughter in law close to the door of the house. The soldier on the tank never replied. They were looking into each others' eyes for 7-10 minutes, when suddenly a soldier opened fire and shot the granddaughter of the witness, Souad, in the neck and chest. She died immediately. They also shot Amal. She was hit in the chest and abdomen, and the interviewee saw her intestines come out. Amal died a little later. The daughter in law ran immediately into the house and was not hurt. The witness Souad Abed Rabbo was hit twice, as she turned around in a clockwise movement. She was hit in the left arm and in the left buttock. She did not see who shot. She assumed that the shots were fired from gun(s) not from the tank, but she was not certain.<sup>47</sup> She saw three soldiers on top of the tanks holding weapons. She felt, as if her left hand fingers were frozen, but she did not at the time feel the gunshot lesion in the buttock and flank.

Samar was hit in the chest with the bullet coming out of the back. She had a lesion of the spine and was at the time of the interview in a hospital in Belgium suffering paralysis.

Souad Abed Rabbo was helped into the house.

They were shouting for ambulances and one of her sons Ahmed called on the phone for an ambulance. They could not by phone or otherwise come in contact with an ambulance. A neighbor, however, by the name of Samih al-Sheikh was an ambulance driver and tried to come to their rescue. He was prevented from doing that, as the soldiers shot at him.

After a while Khaled's wife looked out of the window to see that there were now many tanks.

The interviewee now gave the dead Amal to her husband Muhammad Monib Abed Rabbo, who carried her out of the house and came

43 The names of the witnesses are not withheld in this case despite disclosure of medical information, as its details have already been exposed by media, with the witnesses' consent, including medical details. See e.g. <http://www.smh.com.au/articles/2009/01/23/1232471596621.html>.

44 The same witness was also interviewed by a fieldworker from Israeli human rights organization B'Tselem and her testimony is recorded by them. According to that testimony she was born in 1953 and is 56 years old

45 Identification of the weapon by Marc Galasco, weapons expert for Human Rights Watch, during the team's visit in Gaza.

46 JT: The eldest granddaughter has the same name as the witness.

47 In a testimony given to Israeli human rights organization B'Tselem the same witness claimed she saw a third soldier get out of the tank and shoot with his rifle. He was "most likely religious."



back a little later telling everybody to leave the house. Khaled was carrying Samar, while the witness Souad Abed Rabbo was carried on a bed.

They all left the house and the Israeli soldiers shot "around them" but not at them.

They went towards Zemo Junction in order to find an ambulance. At the Zemo Junction there was a father and his young son with a horse and carriage. As they were requested to help, the Israeli soldiers first shot the horse and the young man by the name of Adham Rahim Nazir. The latter was admitted to hospital in Egypt and had died due to his wounds three days before the interview. The son, Khaled, had explored this, as he wanted to know the fate of the man who was shot trying to help them.<sup>48</sup>

They found an ambulance about 1200 m from the house and were taken to Kamal Adwan hospital.

**Medical records:** Copies of the hospital records of the interviewee and her granddaughters were given to SAW by Shifa hospital. JT: the hospital records had erroneously mistaken Amal for Souad (the granddaughter) and vice versa.

In the records of Souad Abed Rabbo (the witness) it read that she arrived at the hospital at 14.30 on 7 Jan 2009. There was an entrance wound low on the back and an exit wound on the abdominal wall. She also had a lesion of the left arm and was referred to the surgical department. Blood pressure, pulse and temperature were all normal. The 4-year old Samar was taken to Shifah Hospital, neurosurgery and was taken care of by Dr. Skeik in "children surgery".

**Physical examination by JT:** The witness Souad Abed Rabbo was partly undressed with the help of her daughter. She was an obese woman lying most of the time on her back on a sofa.

On her left arm she had two lesions, almost completely healed. On the "extensor side" of the lower arm, about 10 cm below the elbow joint, a sutured wound about 3 cm in transverse measure and less than one cm in vertical measure. The other lesion was a likewise almost healed, sutured wound in the "cubital fossa" with almost the same dimensions as the other wound.

**Interpretation by JT:** Fully consistent with a gunshot lesion from 7 Jan 2009. Entrance and exit wound cannot be determined.

On her left buttock she had a healing wound the diameter about 1 cm. On the abdominal wall a little to the left and a few cm below the umbilicus she had an irregular wound that had probably been sutured. It measured 3 cm in transverse direction and about 1 cm vertically.

**Interpretation by JT:** The wounds were fully consistent with being caused by one gunshot with entrance in the buttock, direction forward, a little upwards and a little to the right. The weapon may well have been a rifle, the bullet of not very large caliber.

(Souad Abed Rabbo complained of pains in the arm and inhibition of movement, and JT and SAW recommended further medical examination.)

Medical file retained at the offices of PHR-Israel.

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<sup>48</sup> This issue was not mentioned in the testimony given by Souad to Israeli human rights organization, B'Tselem.



5a **Abed Rabbo family home.** Photo 30.1.09 by JT.



5b **Souad Abed Rabbo, gun shot, entrance wound, Left buttock, 02.02.2009.** Photo by JT



5c **Souad Abed Rabbo, gun shot, exit wound, Abdominal wall, 02.02.2009.** Photo by JT



5d **Souad Abed Rabbo, left forearm, gun shot wound, 02.02.2009.** Photo by JT



5e **Souad Abed Rabbo in a private house in Gaza, 02.02.2009.** Photo by JT

## CASE STUDY 4 – Doa’ and Iyad Al Banna

T33

<b>Witness I:</b>	Doa’ Al Banna (victim)
<b>Gender:</b>	F
<b>Age:</b>	15
<b>Location:</b>	Jabalial al Nazlah, the martyr’s clinic, North Gaza
<b>Date:</b>	Feb 2, 2009
<b>Interviewers:</b>	AVM, SVA, RS
<b>Also present:</b>	Mustafa al Abed, PMRS worker responsible for the rehabilitation program in North Gaza

The interview was part of a PMRS-organised home visit

**Observation:** the team found Doa’ lying on a bed surrounded by what has remained from the family’s furnishing after their home has been destroyed. They have found shelter in a kind of garage under construction.

Doa’ says that she was sitting on the balcony on the fifth floor of the apartment building the family was living in, the day before her 15th birthday, on 12th January 2009,<sup>49</sup> together with her two sisters (12 and 24 years old), when suddenly she found herself lying between rubble, glass and dust and smoke. She does not remember how it happened, but she remembers looking at her sisters: The younger one lay with her eyes closed as if she were sleeping. She older one had a big wound in her belly and the intestines were visible outside, of her left hand only the thumb was left. Only after that she saw that she herself was in the same condition, her belly torn open with the intestine outside, and her left hand torn off. One of her brothers came to help with a friend, but she asked him to go help her sisters, and managed to walk herself to the staircase and downstairs, holding her bowels inside her belly with her healthy right arm. On the first floor, one of the neighbours wanted to assist her, but she asked them to go up and look for her sisters. However, he did not listen to her and carried her downstairs. The stairs had collapsed partly. Neighbours then carried her outside. As there was no ambulance, she was taken to an ordinary car and to a hospital. She felt pain only in her left underarm. Her memory is incomplete.



33 Jabalia. Doa’ Al Banna. 02.02.2009, 11.52.  
Photo by AVM

The way to the hospital was long and she was very scared because of the bombings, the chaos and many ambulances. When she arrived at the hospital, she refused to take a stretcher since there were many more injured patients.

She underwent surgery. During the recovery period in the hospital her parents were hardly there, since they were needed more at home.

Her mother told her only later in the hospital that both her sisters had died. One of her brothers who came to assist his injured sisters was hit by a subsequent bombing and has a severe head injury with shrapnel in his head. He is at present in the Intensive Care Unit of an Egyptian hospital. His friend was beheaded; the event was witnessed by his 6 year old brother.

49 But cf. the testimony of Witness III (T8), the uncle of Witness I, who said that the event occurred on 14.1.09. Since Witness I remembered and stressed that the event occurred one day before her birthday she may be more accurate in her memory.



## T34

**Witness II:** Iyad Kamal Muhammad Al-Banna (victim, brother of witness I)  
**Gender:** M  
**Age:** 23  
**Date of Interview:** 4 March 09  
**Location of interview:** Palestinian Hospital, Cairo, Egypt  
**Place of residence:** Jabalia, north Gaza  
**Also present:** Care giver Ashraf Mahmud Al Banna (Abu Khader), Uncle (Witness III)  
**Interviewer:** AVM



34a Palestinian Hospital, Cairo. Iyad Al Banna.  
04.03.2009, 14:09. Photo by AVM

**Physical observation:** Iyad had a big scar in his head and his left ear was bandaged. AVM was informed that he had plastic surgery on the left tympanum, which was perforated due to the explosion.

He cannot remember what happened to him, but he is alert and orientated. He talked to AVM about his family, whom the team met in Gaza, and he asked about his house and some members of his family. Nevertheless, he complained that he cannot remember many things: his friends call him by phone and he cannot remember them, or cannot associate their names with who they are. He gets very sad and worried when it happens.



34b Palestinian Hospital, Cairo. Iyad Al Banna. 04.03.2009, 14:09.  
Photo by AVM

## T8

<b>Witness III:</b>	Ashraf Mahmud Al-Banna (uncle of witness II, present at attack)
<b>Gender:</b>	M
<b>Age:</b>	?
<b>Date of Interview:</b>	4 March 09
<b>Location of interview:</b>	<b>Palestinian Hospital, Cairo, Egypt</b>
<b>Place of residence:</b>	<b>Jabalia, north Gaza</b>
<b>Also present:</b>	<b>Iyad Al Banna (witness II)</b>

Since Iyad could not remember the attack, his uncle Ashraf told AVM what happened that 14th of January.<sup>50</sup> He was present at home during the shell fire, since they are an extended family and the six brothers Al Banna live in the same building.

"Iyad's family lived in the 6th floor. It was at the sunset and there was neither electricity nor water in the house, so the three daughters of the family were in the balcony, pulling a rope with a basket to bring upstairs some containers of drinkable water.

There were tanks in Jabal Al-Kashef, but we could see them only from afar.

All of sudden, a rocket hit the house, exactly the balcony where the girls were. Ferial (20 year old) and Ayah (10 year old) died on the spot. Doa' (15 year old) was seriously injured.

There was a moment of panic. Iyad and his friend Moustafa al Basha tried to go upstairs to rescue his sisters. On the stairs they found Doa' but she asked them to go to help the others. As soon as they reached the place, there was a second explosion. Iyad's friend was beheaded while Iyad himself got shrapnel in his scalp.

The third attack took place when the ambulance arrived to rescue the nieces and nephews. The emergency team had just reached the place when the third rocket was shelled at them. Two paramedics died in the attack. After that, no one dared to go close to the bodies. We were all relatives. We were living in the same house and we had to wait for many hours before we could pray for them and bury them. Each time we tried to reach their flat, the Apache would open fire on us, so we had to withdraw and wait.

I am sure that the soldiers were watching us: they hit the girls, first, and then the boys and the paramedics. They have the equipment to do that. It seems that they were waiting for the rescuers to come to hit again and again.

Iyad underwent brain surgery for the first time at Shifa' Hospital, but they could not stop the haemorrhage, so he was sent urgently to Cairo. He remained for some days in Bank Al Ahli Hospital, under the supervision of Dr. Sherif Mutkawy [...].

Iyad was operated again in the Palestinian Hospital and the abscess was drained once more. Immediately after surgery he woke up and started improving day after day.

Before he was so agitated and often he had to be tied up, because he became irritable and aggressive. From the day of this second operation he was improving from every point of view. I am teaching him again how to read and write, and he has already started to memorize Al Cor'an al Karim."

Medical documentation was not available

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<sup>50</sup> See Note 43.



## CASE STUDY 5 – Abu Halima family

### T35

<b>Witness I:</b>	Sabah Abu Halima (victim)
<b>Gender:</b>	F
<b>Age:</b>	45
<b>Date of interview:</b>	1 Feb 2009
<b>Location:</b>	Shifa hospital, Gaza
<b>Place of residence:</b>	Beit Lahia al Sieh, close to Al Atatra, Gaza
<b>Interview and physical examination:</b>	JT, SAW, AVM
<b>Also present:</b>	Sabah's sister and mother

On 4 January 2009 she was having lunch with the family, altogether 16 persons, including 9 children. There were attacks from F16 flights, three rockets were fired into the house.

Five persons died in the first attack. Some had their head shot off. Her 8-year old boy burned to death shouting: "Mommy, Mommy we must pray".

Two bodies were inseparable due to the heat.

Her child of 1-year and three months died in her arms. After the 2nd rocket there was much fire and smoke.

A 5-year old boy and a 16-year old boy survived with burns.

A 3-year old girl and a 20-year old woman were referred to Egypt for treatment of burns.<sup>51</sup>

When the survivors were leaving the house to go to the hospital, they were shot at by Israeli soldiers. Two nephews died due to the shooting, Muhammad Nijma and Matar Said.

Sabah Abu Halima could see no reason for her house to be attacked.

**Physical examination:** The team was not able to see the burns, as she was bandaged. Apparently extensive burns on the right side of her body arm and leg, awaiting plastic surgery.

**Additional materials:** The team was given a photograph by the treating doctor, Dr. Nafez Abu Shaaban:



35b Shifa' Hospital. Sabah Abu Halima. 01.02.2009, 14.24. Photo by AVM.



35a Shifa' Hospital. Sabah Abu Halima. Date unknown. Photo by Dr. Nafez Abu Sha'ban, Head of Burns Department, Shifa' hospital.

51 See testimonies T9 and T37 below.

## T36

<b>Witness I:</b>	Sabah Abu Halima
<b>Second interview:</b>	2 March 2009
<b>Location of interview:</b>	Ahmed Maher hospital, Egypt. Contact numbers retained by experts
<b>Interviewer:</b>	AVM
<b>Also present:</b>	2 nephews, one niece based in Cairo

AVM visited Sabah Abu Halima right after her arrival in Cairo on the evening of the 2nd of March.

When the team had visited Sabah on the 1st of February at Shifa' Hospital,<sup>52</sup> she told them that her daughter in law (Ghada, 20) and her granddaughter (Farah, 2 and a half) were sent to Egypt immediately after the attack, with severe burns. The aim of this second visit was to know the hospital Ghada and Farah were admitted to, and the contact person to reach them.

Sabah had just undergone plastic surgery on her right arm the day before the meeting. She was expecting to go back to Gaza as soon as the borders would be open. Her general condition was good.

Sabah gave AVM the telephone number of her son, who is in Hilmiya Military Hospital with Ghada and Farah.

## T9

<b>Witness II:</b>	Muhammad Saad Abu Halima, the father of Farah, 30 months old, who was injured in the attack (eyewitness)
<b>Gender:</b>	M
<b>Age:</b>	24
<b>Date of interview:</b>	2 March 2009
<b>Location of interview:</b>	Military Hospital in Hilmiya, Egypt
<b>Place of residence:</b>	Beit Lahia, Al Sieh, AlAtatra, Gaza.
<b>Interviewer:</b>	AVM
<b>Also present:</b>	Farah Muhammad Abu Halima, (f) 30 months old (daughter of witness), and Riad (Abu Ghada), the father of Witness III (see below)

At the Military Hospital in Hilmiya AVM visited Farah Muhammad Abu Halima (granddaughter of Sabah Abu Halima), a 30 months old baby.

Her father, Muhammad Saad Abu Halima, and her grandfather Riad (Abu Gada) were present. They explained that Farah suffered burns in the 45% of her body, and was referred to Egypt immediately after the attack with her mother Ghada Riad Abu Halima, who is still in ICU.

**Physical observation I:** Her head, legs, abdomen and back are still bandaged and scars can be seen on her face and arms.

Nevertheless, according to her family her prognosis is good and she is expected to be back home soon.

Farah's father was in the house in the moment of the attack and he repeats how it happened: "We live in Beit Lahia Al Sieh, close to Atatra area. It was a military closed area and at that time there were continuous attacks and explosions around us.

It was the Sunday 4th of January, around 7 p.m. We were having supper together and, since ours is an extended family, there were 18 members of the family at home. We were occupying several rooms of the house.

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52 See T35 above

We heard an explosion very close to our house and we realized that our uncle's house had been hit. It is only a few meters from our house. Immediately, a missile hit the room where we were eating. My father and four of my brothers died on the spot. We heard them crying for help and holding to each other as they burnt. My wife Ghada called me aloud. She was on fire and I could not do anything to extinguish the flames, since I was holding our youngest baby, Ayah (5 months old) in my arms. I tried several times to go downstairs to leave the baby in a safe place and go back to help my wife, but every time I tried to leave the room there was a new explosion and more fire. I remember three consecutive explosions, and a dense dark smoke engulfing the whole building.

After the last shell fire some of us managed to reach the street. I was holding my daughter Ayah and my little sister Shahed (13 months old), who was completely burnt.

One of our relatives, called Matar, took my mother in his car and drove to the hospital. I put Ghada, Farah and Shahed in the tractor with my brother Omar (17) and some other relatives. My brother Ali and my aunt Nabilah were also with us.

We were going down the Kamal Adwan street, and we had almost reached the school when the soldiers halted us. A tank appeared on the street and stopped close to the school. The soldiers were occupying the second floor of a building which was only 20 meters from the street. They could see that we were all wounded and dirty from the explosions, because the tractor was open at the back. They shot at us, killing my cousins Matar Saad Abu Halima and Muhammad Hikma Abu Halima, who were driving us to the hospital.

The soldiers ordered us to get out of the tractor, and they asked me to take off my clothes. I did it and they checked all my body. I think they were looking for explosives, but we were all injured and in pitiful conditions. How could we think of carrying explosives when my younger siblings and my own children were dying?

Then, when I was almost expecting death, they shouted at me: "you can get dressed and go". They did not allow us to use the tractor. I held my sister Shahed in my arms (she was our only sister after nine brothers!) but the soldiers said that the baby was already dead, so they forced me to leave her in the car. I tried to help my wife Ghada, who was completely burned, and they forced us to walk to the hospital. For about 300 meters the soldiers were shooting at our feet as we walked, raising so much dust that the wounds of my wife became full of dirt. After a while we saw a lorry on the road. It was overcrowded with people going to the hospital after the heavy attacks, but they made room for us and we arrived at Shifa' Hospital.

I had no serious injuries, neither did my youngest daughter Ayah, whom I was holding at the time of the attack. My wife Ghada and my daughter Farah were sent immediately to Egypt. I came with them and from that time on I have not seen the other members of the family. They told me that our house was consumed by the fire, and that it took 7 days, till the IDF allowed the rescuers to take out the corpses. The casualties were:

**Killed:**

- Saad Allah Matar Abu Halima, 45, my father. He was beheaded in the first explosion and burnt holding one of my younger brothers
- Abd Saad Abu Halima, 14, brother.
- Zeid Saad Abu Halima, 12, brother.
- Hamza Saad Abu Halima, 8, brother.
- Shahed Saad Abu Halima, 13 months old, sister.

They all died during the attack.

**Also killed:**

- Matar Saad Abu Halima, cousin
- Muhammad Hikmah Abu Halima, cousin

They both were shot at while driving the injured to the hospital.

**Injured:**

- Sabah Salamah Abu Halima, mother
- Ghada Riad Abu Halima, 20, wife
- Farah Muhammad Abu Halima, 30 months old, daughter
- Yusuf Saad Allah Abu Halima, 16, brother (burns)
- A'la Saad Abu Halima, 4, brother (burns)
- Omar Saad Abu Halima, 18, brother (burns)

Only my brothers Mahmoud (20) and Ahmed (22), his wife Maysa, myself and my daughter Ayah were not injured. My brothers were staying in a different room at the time of the attack”.

Observation by AVM: Muhammad’s account is fully consistent with his mother’s, even though they haven’t seen each other since that day - he was in Egypt with the injured and she was in Shifa’ Hospital.



9 Military Hospital Al Hilmiya, Egypt. Farah Mohammed Abu Halima. 03.03.2009, 18:36. Photo by AVM

### Patient’s Visit

<b>Witness III:</b> <sup>53</sup>	Ghada Riad Abu Halima, victim, the wife of witness II and mother of Farah, 30 months old, who was injured in the attack
<b>Gender:</b>	F
<b>Age:</b>	20
<b>Date of 1st observation:</b>	2 March 2009
<b>Location of observation:</b>	Military Hospital in Hilmiya, Egypt
<b>Place of residence:</b>	Beit Lahia, Al Sieh, AlAtatra, Gaza.
<b>Interviewer:</b>	AVM
<b>Also present:</b>	Muhammad Abu Halima, and father Riad

After the account of Witness II he went with AVM to visit his wife Ghada, who is still in ICU. AVM was not allowed in, she could see her only through a glass window. Witness II explained that Ghada had burns in the 40% of her body. The most severe ones were in the arms, legs and chest. He said that the right arm had exposed the bone in the area of the elbow, and she cannot move the arm or the fingers. This information was confirmed later on by Ghada’s father.

**Physical observation:** AVM could see only Ghada’s bandages covering her head, both arms and abdomen, she noticed that she waved at her with the left hand, most likely because she could not move the right one.

<sup>53</sup> This witness was also interviewed by B’Tselem, while she was still at Shifa hospital in Gaza, on 9.1.09. For the testimony see [http://www.btselem.org/english/testimonies/20090104\\_abu\\_halima\\_home\\_set\\_on\\_fire\\_by\\_shelling.asp](http://www.btselem.org/english/testimonies/20090104_abu_halima_home_set_on_fire_by_shelling.asp)

### T37

<b>Witness III:</b>	Ghada Riad Abu Halima, victim, the wife of witness II and mother of Farah, 30 months old, who was injured in the attack
<b>Date of interview:</b>	6 March 2009
<b>Location of interview:</b>	Military Hospital in Hilmiya, Egypt
<b>Interviewer:</b>	AVM
<b>Also present:</b>	Muhammad Abu Halima, father Riad and daughter Farah

AVM visited Witness III for the second time at the same hospital on the 6th of March. On this occasion she managed to enter the room in ICU, and saw her lying on her left side.

**Physical observation:** The bandages covered her from the head to the toes, especially on the right side. She said that she would undergo plastic surgery on Sunday the 8th of March, because the bones are exposed in many places, like the right arm, elbow and chest. It was obvious that she could not make the slightest movement without great pain, due to the extensive burns that cover most of her body.

Witness III refused to be photographed, but she said that the medical team which follows her case had already taken some pictures of the burns and could give them to AVM.

## CASE STUDY 6 – AAM

### T38 (name withheld)

<b>Witness:</b>	AAM (victim)
<b>Gender:</b>	M
<b>Age:</b>	?
<b>Date of interview:</b>	Feb 2 2009
<b>Location of interview:</b>	Jabalia town, Old Gaza Street, north Gaza.
<b>Interviewers:</b>	AVM, SVA, RS
<b>Also present:</b>	Father, uncle, relatives and acquaintances, Mustafa al Abed, PMRS worker for rehabilitation in North Gaza

Home-visit organised by PMRS North Gaza

The team find the child in a small room, where several people are gathered. He is lying on a bed and talks slowly like someone who is very tired. He can hardly follow a conversation. He is hemiplegic, meaning that he cannot move his left side and does not have any feeling on that side of his body either. He has also lost sphincter control as a result of his head injury. He started talking to the team but could barely connect the sentences.

A's uncle told the team that he is the 11th of 14 children of his parents, the 5th boy. The day he was injured (date unclear to the team) he was playing in the street and then went to buy something. Suddenly there was fighting with severe bombardments. There came airplanes and explosions in the street. The boy was hit on his head by parts of a collapsing building and by shrapnel. He was taken to hospital and remained in the intensive care and was in coma for 12 days. He underwent neurosurgery and shrapnel was removed from his brain at Shifa Hospital. The brain injury caused the hemiplegia of the entire left side of his body. After a few days he was transferred to another hospital. The follow up care has been poor. Except for the PMRS no-one came to visit him.



Men in the room told the team that bombs had been thrown from unmanned aircraft (drones or as the people in Gaza call them "Zanana planes").

Physical observation (SVA): There are two scars on the right side of his head, with 16 stitches.



38 Jabalia. AAM. 02.02.2009, 12.28. Photo by AVM.

## CASE STUDY 7 – Attack on police trainees<sup>54</sup>

### T39 (name withheld)

<b>Witness:</b>	MHA (victim)
<b>Gender:</b>	M
<b>Age:</b>	35
<b>Date of Interview:</b>	4 March 09
<b>Location of interview:</b>	Palestinian Hospital, Cairo, Egypt
<b>Interviewer:</b>	AVM
<b>Also present:</b>	AHA (brother of the witness)

M was one of the Hamas police graduates who suffered the first attacks on the 27th of December. He was still in a training stage. There were 44 trainees in his class. Only four of them survived. He remembered that he did not feel like going to work that morning. They had guests at home till late night and he felt lazy. His wife hurried him to work in the morning. Around 10.30 they heard in the news that the border had been opened for humanitarian aid and some goods had entered the Gaza Strip. They commented on this fact, thinking that it was a positive sign. At 11.00 they were already in formation when the attack started. He did not see the plane. He heard the buzz of the missile and, suddenly, the explosion. At this point M's account became very intimate and emotional:

"I saw my life-long friends scattered into pieces all around the place. I thought I was dead, like them, and it took me a while to realize that I was alive... I immediately regretted it, but I remembered Allah and started chanting the proclamation of faith: "La illah illa Allah". It strengthened me. Some TV crews filmed this moment and now I see myself from time to time on Al Jazeera. I hardly can believe that it happened to me.

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<sup>54</sup> There is a legal controversy as to whether the air strike on the civil police graduates constituted an attack against combatants or non-combatants. We have included this testimony as a rare opportunity to learn of the initial moments of the Gaza attack, and of this specific attack, from the victim's perspective.

I still cannot chase out the image of my friends' blood all around me: their bodies, their limbs, their heads ... how much I wanted to be a martyr like them. Instead I was alive, though I could not grasp then the magnitude of the attacks.

I tried to get up and help my friends but I couldn't move. I checked myself, to find that my legs were almost gone, all covered by blood and shrapnel. My belly was fully open and my bowels were out.

I was taken to Shifa' Hospital. There was a great confusion there: casualties all over, journalists, medical teams running from one patient to the next, corpses and limbs lined up on the floor...

In Shifa' Hospital they removed two big pieces of shrapnel from my belly but, because of the chaos, they did not notice that there were several other pieces. After two days my belly grew like a cow. There was a perforation – doctors said... peritonitis, I think – the dirtiness had gone all around my bowels and came out from the wound. I am not fully aware of those days. Fever was very high and I was in coma most of the time.

I know that they had to open me once again to clean the intestine, and right after I came to Egypt. First I went to Al Salam Hospital, and then I came here [to the Palestinian Hospital - AVM]. We travelled from Gaza 12 of us together... six of them died during the first week. I have seen death so close several times: I was in coma for one month and during that time in the ICU I suffered four cardiac arrests.

It was nearly two weeks after I came out from ICU when my right leg became necrotic. It had been infected for a long time, and now the risk of septicaemia seemed very close. One day, a couple of weeks ago, my doctor came and told me that I had to make a difficult choice: either amputation or death. I cried, I tell you, it was much better to be a martyr than a cripple. I tried to think but my mind was blank. Amputation or death...

Then I called my doctor and told him: "if Allah had wanted me a martyr, if it was my qadar, I would have died any of the many times I was about to, but since I am still alive, it means that Allah wants me to live. Amputate my leg. When are you ready to do it?"

"even tomorrow' - he replied. "It is fine with me. Tomorrow"

It was already ten days ago and now I am trying to get used to this stump..."

**Physical observation:** Even though M communicates great strength and determination, he still looks very sick. His left leg, held together with external fixing, is oedematous and bluish. His abdomen is still tense and tympanic and evacuation is still not normal.

M cannot move his toes. He knew that the external fixation cannot be removed for at least 6 months, but he fears that the left leg will be amputated much earlier than that. "Also the right one started that way" – commented with great realism. Dr. Houssam Turqan<sup>55</sup> confirmed this risk during our meeting on the 7th of March. Some days later Dr. Houssam Turqan told AVM that M was one of the "miracles" of medical teams in the Palestinian Hospital.

Medical documentation was not available.

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55 The doctor in charge of all the referrals of the wounded from Gaza to Egyptian hospitals, who met with AVM in Cairo. See also Chapter 5.3 below.

## CASE STUDY 8 – MSB

### T40 (name withheld)

<b>Witness:</b>	MSB (victim)
<b>Gender:</b>	M
<b>Age:</b>	24
<b>Date of interview:</b>	4 March 09
<b>Location of interview:</b>	Palestinian hospital, Cairo
<b>Place of residence:</b>	Khan Yunis
<b>Interviewer:</b>	AVM
<b>Also present:</b>	Dr. Salwa Hatim, from the Arab Union of Doctors

M is one of the patients who suffered the most severe injuries. For a long time he had been fighting between life and death, but his condition has greatly improved/

He started his account by explaining that, when the IDF had already attacked the governmental infrastructures (ministries, mosques, schools, universities...) they started shooting and shelling randomly, aiming just to terrify and to "give a lesson" to the population. He declared to have seen some "cd" shrapnel (called "disc bombs" elsewhere in this report, see 3.2 above) and flechettes on the ground in his area. He thinks that the attack where he was injured was part of this second "strategy".

"It was the 30th of December and I was sitting in the garden with some friends. It was around 7.30 a.m. We were all civilians. We were wearing civil clothes and none of us had a weapon. Suddenly a drone flew over us and shelled the group. The rocket hit me on my back and came out from my belly. It made a big damage in my bowels, cutting my urethra and destroying part of the intestines. It also caused open fractures in my back bone, pelvis and hips (see picture 11).

I was taken to Nasser Hospital and, after I was transferred to Egypt, I remained for a very long time in the ICU at the Palestinian Hospital"



**40** Palestinian Hospital, Cairo. MSB. X-ray. DOCTORS USE THIS X-RAY AS EVIDENCE OF ABNORMAL FRACTURES. Photo of x-ray 04.03.2009, 16:30 by AVM.

AVM was told by Dr. Salwa Hatim and by Dr. Houssam Turqan<sup>56</sup> that M was in coma for many days. He has an irreversible colostomy and his back and anus are still one big wound waiting for further reconstructive surgery.

A picture of the x-rays is retained by the team, but other medical documentation was not available.

<sup>56</sup> See Note 49.

## CASE STUDY 9 – BHKM

### T41 (name withheld)

<b>Witness I:</b>	BHKM (victim)
<b>Gender:</b>	M
<b>Age:</b>	5
<b>Witness II:</b>	HKM (father of the witness)
<b>Gender:</b>	M
<b>Age:</b>	24
<b>Date of interview:</b>	6 March 09
<b>Location of interview:</b>	Military Hospital – Al Hilmiya, Cairo, Egypt
<b>Place of residence:</b>	Rafah
<b>Interviewer:</b>	AVM

B's father H told AVM how B was wounded:

"We live in an open area in the outskirts of Rafah. There are only three buildings in the surroundings. The night of the 13th of January I was alone with my child in our flat watching TV. The rest of the family was in my brother's flat. It was a moment of heavy attacks, and I was trying to distract him from the deafening explosions.

It was around 11:00 p.m. The building close to our house was shelled by F16. Shrapnel, rubble and smoke invaded our sitting room and then I saw B's belly fully open and his bowels coming out. There were also deep wounds on his chest.

I took him immediately to Abu Yussuf el Najjar Hospital. It was not difficult to find an ambulance. There were many people going to the hospitals because of the continuous attacks. Then we were referred to Egypt. Everything happened very quickly. Now B is doing fine. We will go back home in a few days."

B is a bright, lively child who plays around and makes friends with everyone in the ward. On his bed there is a drawing showing war planes, tanks and soldiers. A lot of blood, shooting and dead bodies are to be seen all over: "It is my house" - he says proudly - "I live in the war". B has a long scar going down from his chest to his abdomen.



41 Military Hospital Al Hilmiya, Egypt. BHKM.  
06.03.2009, 19:42. Photo by AVM

## 4.2 Attacks during the truce

From 7 January and onward,<sup>57</sup> the Israeli army declared three hours each day during which attacks would cease in order to enable entry of humanitarian supplies into the Gaza Strip and movement of civilians and the wounded within Gaza. However, the team heard of several examples in which this truce was breached by Israeli forces on the ground.

### CASE STUDY 1 – The Shurrab family<sup>58</sup>

#### T1

<b>Witness:</b>	<b>Muhammad Qassab Khalil Shurrab (victim and eye witness)</b>
<b>Gender:</b>	<b>M</b>
<b>Age:</b>	<b>64</b>
<b>Date of interview:</b>	<b>2 Feb 2009</b>
<b>Location of interview:</b>	<b>Khan Yunis</b>
<b>Interviewers:</b>	<b>AVM, RS</b>
<b>Also present:</b>	<b>AlMezan fieldworkers</b>

In January a storm had damaged the satellite dish on his house and he could no longer watch TV. So his son Qassab (28 years old, architect) came to see him and to repair the dish, accompanied by his younger brother Ibrahim, (18 years old, a university student in his first semester of architecture). On Friday, 16 January, the three of them wanted to go back to Khan Yunis, which is only a short distance. There were certain hours of cease fire during these days. So they informed about these hours and were told that there was a cease fire from 10:00 to 13:00 hours that day. So they left after the prayer at noon in the red Land Rover, first using the dust road which led them to the asphalt road. Muhammad drove slowly. Already on the asphalt road he saw two Israeli tanks on his left side. However, there was no fighting. He waved to the soldiers and proceeded. After about 200m, the car was hit by gun fire. Muhammad was hit in his upper left arm. He shouted at his sons to put their heads down and tried to protect himself. The windscreen of the car was hit by 22 bullets. He lost control over the car and stopped it at the side of the street...

### CASE STUDY 2 – MAH

#### T42 (name withheld)

<b>Witness:</b>	<b>MAH</b>
<b>Gender:</b>	<b>M</b>
<b>Age:</b>	<b>25</b>
<b>Date of interview:</b>	<b>1 Feb 09</b>
<b>Location of interview:</b>	<b>Shifa hospital Gaza city</b>
<b>Interviewers:</b>	<b>SAW, AVM, JT</b>
<b>Physical examination:</b>	<b>JT, SAW, AVM</b>
<b>Also present:</b>	<b>A relative or neighbor, who gave the team his phone number</b>

The team examined MAH. He lived in Gaza City with his family, the father who was director of Palestinian Bank, 55, the mother, a brother, 24, a brother, 19 and a sister, 14.

On 27 Dec 2008 there had been air attacks in the neighbourhood and after one week the land operation. A club called "Barcelona" was attacked.

<sup>57</sup> PHR-Israel Update 7.1.09: "Health-related Violations"

<sup>58</sup> For the full testimony and detailed background on this case see Chapter 1, "Denial of Evacuation and attacks on medical teams" 1.1., Case Study 1 above.





42a Shifa' Hospital. MAH. Leg burns, 01.02.2009, 14.47. Photo by AVM



42b Shifa' Hospital. MAH. Leg burns, 01.02.2009, 14.47. Photo by AVM



42c Shifa' Hospital. MAH. 01.02.2009, 14.47. Photo by JT

The brother of 19 years became nervous and wanted to move to a safe place. When he had found it and told the family, the father decided to move with the rest of the family to the safe place.

When the truce was supposed to have started at 11 am on 15 Jan 2009, the remaining five family members went down the stairs to their car. The father was carrying 140.000 US dollars that he was guarding for bank customers. As soon as they were inside the car it was hit – probably from the air - altogether they were hit three times, possibly once from a tank, M did not see that. At the first hit towards the car he was thrown out of the car, and he said witnesses told him that he tried to crawl back into the car, perhaps in order to save the family. They all burnt to death however. He and the 19 year old were the only survivors of the family. The money also burned completely. It was said that the fire burned for 6 hours.

The incident was witnessed by a neighbor (telephone retained by the experts) who tried to help.

M woke up in the hospital. His spleen had been removed. His left eye was destroyed, he had lost some teeth, there was a fracture of the mandible (lower jaw) and he had extensive 3rd degree burns especially of his legs.

**Physical examination:** By examination the team saw a young man heavily influenced by the injuries and the loss of his family, but still able to tell the story and even smile.

He was missing two teeth in his right upper jaw, detailed examination was not possible as he wore tight metal braces due to his mandibular fracture. The left eye was destroyed. He had bandages on part of his arms and on his legs. X-ray photos allegedly taken at admission showed several foreign bodies in the head, the neck and the thorax (breast).

About half an hour after the examination the dressing was changed, and the team saw the burns of the right leg. The skin defect stretched from the hip to the foot, including part of the foot and was present on the outer/dorsal side of the leg. The wound was deep and had a foul smell, possibly indicating infection. There was scattered granulation tissue as a sign of incipient healing. The wound margins were sharply demarcated, probably due to treatment.

**Overall impression and conclusion on MAH:** His story was fully consistent with the events known to have happened, and his lesions may well be caused in the way that he described.

As the burns were rather extensive and possibly infected, it is difficult to give a prognosis as to his survival.

It was not possible to determine if the wounds had been caused by phosphorus burns.

Medical files retained in the offices of PHR-Israel



42e MAH. X-ray, head, lateral view, foreign bodies visible, probably shrapnel. Photo of x-ray 01.02.2009 by JT



42d MAH. X-ray picture, chest, foreign bodies visible, probably shrapnel. Photo of x-ray 01.02.2009 by JT

### CASE STUDY 3 – MMI

#### T43 (name withheld)

<b>Witness:</b>	MMI (victim)
<b>Gender:</b>	M
<b>Age:</b>	40
<b>Date of interview:</b>	6 March 09
<b>Location of interview:</b>	Military hospital, Hilmiya, Cairo, Egypt
<b>Place of residence:</b>	Al Zeitoun, Gaza
<b>Interviewer:</b>	AVM

Physical observation: M had his right leg amputated below the knee and numerous scars on the left leg.

“Our house was in an area where there were a lot of attacks, so I felt that it was not safe and, as soon as I could, I sent my wife to a safer place, with her family. I reached her afterwards. On the 4th of January, I went back home with my son KMI (14), to get some clothes and other things we needed in our new location.

It was around midday, and I thought it was the time of the humanitarian ceasefire or truce. That’s why I took my son and went back home on my motorcycle. We were coming back and we had already left behind the most dangerous area. I thought: “al hamdu lillah, we were safe”. At that very moment a drone hit us with a small missile. It was very powerful, and my son died on the spot. I could see his limbs spread all over the place. I was taken to the Shifa’ hospital and from there to Al Arish Hospital, Al Kobbah Hospital (Cairo) and finally to the Hilmiya Military Hospital.”



43 Military Hospital Al Hilmiya, Egypt. MMI. 06.03.2009, 20:32. Photo by AVM

## CASE STUDY 4 – MARK

### T44 (name withheld)

<b>Witness:</b>	<b>MARK (victim)</b>
<b>Gender:</b>	<b>M</b>
<b>Age:</b>	<b>22</b>
<b>Date of interview:</b>	<b>6 March 09</b>
<b>Location of interview:</b>	<b>Military hospital, Hilmiya, Cairo, Egypt</b>
<b>Place of residence:</b>	<b>Jabal Al Rayes (AlTufah), Gaza</b>
<b>Interviewer:</b>	<b>AVM</b>
<b>Also present:</b>	<b>Care giver, SARK (brother)</b>

With M there was his brother S (26) who confirmed his account providing further details.

“On Sunday, the 4th of January 2009, I was sitting with some friends in a car outside my house in Al Tufah. It was around 3p.m. There had been heavy attacks on the area for many hours and there were some tanks pointing at us on Jabal Al Rayes, but we wanted to use the three hours’ truce to go to my friend’s house.

Suddenly, we heard an explosion and the house close to us was shelled by the tanks. The owner of the house died and one of my friends was injured. I had a big wound in my hip and the bones were sticking out from the thigh. I was taken to Shifa’ Hospital with a private car and then to Al Quds Hospital, where I waited for one week to be sent to Egypt.

At the moment, I have had plastic surgery done on my thigh and the wound is now closed and clean, but the joint is still broken and I have been waiting here for many days....”

Physical observation: M showed AVM a big scar on his left thigh. The leg was laid on the bed in an abnormal position, showing evidence of the fracture. There was no access to his medical file or x-rays for further information on his case.



44 Military Hospital Al Hilmiya, Egypt. MARK. 06.03.2009, 21:06.  
Photo by AVM

## 5. Public health and environment; capabilities, weaknesses and threats of the Gaza health system

### 5.1 Impact on public health

#### Public health status prior to the attack

**RS:** Prior to the attack, public health standards were high in some areas and precarious in others, because of the siege of the Gaza-Strip.

#### Selected health indicators

	Reference	Amount	Year
Population with access to local health services	%	100	2005
Contraceptive prevalence rate	%	50	2005
Antenatal care coverage	%	97	2005
Births attended by skilled health personnel	%	97	2005
Infants attended by trained personnel	%	97	2005
One year-olds immunized with BCG	%	100	2007
One year-olds immunized with DPT	%	100	2007
One year-olds immunized with OPV	%	100	2007
One year-olds immunized with measles vaccine	%	100	2007
One year-olds immunized with Hepatitis B vaccine	%	99	2007
Pregnant women immunized with two or more doses of tetanus toxoid	%	37	2007
Infant mortality rate (< 1 year)	Per 1.000 live births	24,2	2005
Under five mortality rate	Per 1.000 live births	28,3	2006
Maternal mortality ratio	Per 100.000 live births	80	2005

According to WHO Regional Office for the Eastern Mediterranean: Country Profiles: Palestine

With regard to the “human poverty index” the Occupied Palestinian Territories rank 9 out of 108 “developing countries and areas” in UNDP’s Human Development Report 2007/08. The “human poverty index” is calculated on the basis of longevity, which is measured by the proportion of the population not expected to survive to the age of 40 years, knowledge, measured by the adult illiteracy rate, and standard of living, a combined indicator, which considers access to clean water, the proportion of underweight children among children younger than five years of age etc.

*Some components of public health have been found highly problematic.*

## Environment, water and sanitation<sup>59</sup>

**RS:** I visited two water treatment plants, one in Beit Lahiya in the North and one South West of Gaza City. In both of them lagoons are protected by sand dams. The water level is up to 12 m above the surrounding area, part of which is residential area. There was an accident in 2007, when a dam of a recently built new lagoon broke and the area of Omar Nasr was flooded with contaminated water. Five people died, among them two children. One of the dams of the water treatment plant South of Gaza City was hit by a bomb from a F16 aircraft during the attacks in December 2008 / January 2009, flooding an area which was partly occupied by Bedouin residences. There are no data on casualties.

The maximum capacity of the Northern treatment plant is 9.000 m<sup>3</sup> daily, but daily afflux is at present 19.000 m<sup>3</sup> according to Prof. Samir Afifi of the Islamic University's Environmental and Earth Science Department. The treatment plant South of Gaza City has been built in 1999 with support of USAID with a maximum capacity of 35.000 m<sup>3</sup> per day, but is at present receiving 50.000 m<sup>3</sup> daily, according to Prof. Afifi. Also according to him, the contents of nitrate is 350 mg/l, while the permitted maximum in the EU is 50 mg/l and in Switzerland 25 mg/l. Nitrate is reduced by bacteria in the human body, for example in the intestine, to nitrite, which can contribute to the formation of nitrosamine which is carcinogenic, and can form compounds with haemoglobin, leading to the formation of methaemoglobin, which creates red blood cells not being able to transport oxygen.

Viral and bacterial contamination of drinking water is highly probable under these circumstances. The "Epidemiological Bulletin for Gaza Strip", published by UNRWA, reports in its issue of 15th February 2009 that in 2008 98% of so called Class B diseases (this is an epidemiological classification which summarizes diseases, which are considered important for public health without representing an immediate threat in terms of epidemic spread, and which are reported weekly in epidemiological vigilance systems), which cannot be prevented by vaccination, have been diarrhoea. 17.754 children below the age of three years have been treated for watery diarrhoea, and 4.272 people for acute bloody diarrhoea. Big part of this is most likely connected to poor water quality.

Suspicion has been expressed that there might be polio-virus in the water. Samples have been taken from the two mentioned water treatment plants for virological examination. Please see appendix 2 for the list of samples sent to a UK laboratory for analysis (insert lab details here).

Doctors and nurses of the Palestinian Medical Relief Society reported from their under-fives follow-up programme that 45% of these children are under-weight and 63% anaemic (according to their criteria, this means an Hgb of less than 11 g/dl blood (between 11 and 14 g/dl would be normal in children of the age between 2 and 6 years). Both these parameters indicate nutrition problems which can be attributed to the siege and subsequent supply problems, and which most probably can have been aggravated by the attacks. Statistics on these issues including the time of the attacks are not yet available.

### Impact of the attacks on public health:

After the attacks in December 2008/January 2009 many people reported long lasting electricity cuts in densely populated residential areas, meaning that water pumps could not work and water was not available in buildings which depend on pumps for water supply. It is obvious that the water supply system has been destroyed where buildings and entire residential areas were destroyed. Near the Sheikh Zayed residential area in Beit Lahiya I saw a bomb crater on a road, where two big water pipes were crossing and had been destroyed by the bomb.

On an organic farm in Beit Hanoun, run by the "Safe Agricultural Producers Society" (SAPS), grass was cut shortly after an area at a distance of 300 m had been bombed by F 16 aircraft. Staff from the farm reported that two cows died within 30 minutes after having eaten from the grass. Two other cows survived after receiving an Atropin injection by a doctor. I took samples of the grass and the soil with control samples at a bigger distance from the bombed area for toxicological examination. Please see appendix 2 for the list of samples sent to a UK laboratory for analysis (insert lab details here).

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<sup>59</sup> Based on field trips made by RS with the Islamic University's Environmental and Earth Science Department, 3 Feb 09.



Butane gas was not available during and several days after the attacks. As this is the main fuel for cooking, this has led to nutrition problems. Because of the scarcity of wood in the Gaza-Strip, there are hardly any alternatives for cooking. People tried to cope by using parts of their damaged furniture as fire wood.

The attacks caused a temporary disruption of the regular public healthcare system. Many health centres could not be reached, some were attacked or destroyed.<sup>60</sup> Medical staff had to be concentrated in hospitals for the treatment of severely injured people. People with chronic diseases like hypertension or diabetes receive their necessary drugs in most cases for an entire month. However, cases of dangerous interruptions of treatment have most probably occurred, where health centres were not able to provide continuation of treatment. We have not been able to assess the magnitude of this problem during the time of the mission.

Dr. Lennia Obed, gynaecologist at the Palestinian Medical Relief Society's clinic in Jabalia City, reported that she saw several cases of pregnant women no longer feeling fetal movement or vaginal bleeding because of psychological trauma caused by the attacks. Four cases of intrauterine death occurred during the attacks, which could not be attributed to any other reason.

## 5.2 Impact on healthcare-related issues<sup>61</sup>

**SVA:** On the evening of the 3rd of February 2009 I met with Mahmoud Daher who is the Primary Health Care specialist for the World Health Organisation in Gaza. We talked about the health situation in the Gaza strip. He informed me that the four main role players in health are:

- The Ministry of Health (responsible for approximately 60% of primary health care and 70% of secondary health care.
- The United Nations Relief and Works Agency for Palestinian refugees, UNRWA (35% of primary health care clinics and no secondary care).
- A combined group of NGO's responsible for approximately 10% of primary health care and 25% of secondary care.
- The private sector which particularly specialises in Secondary and Tertiary care.<sup>62</sup>

An additional fifth role player is medical care outside the Gaza Strip:

Medical care outside Gaza is divided over Israel, East Jerusalem, West Bank, Egypt and Jordan.

During the period of 2001 to 2004 approximately 1000 patients monthly were treated outside the Gaza Strip. However since the 27th June 2006 there were far more restrictions and since the capture of an Israeli soldier the Rafah border with Egypt is now almost completely closed.

The funds received by the Ministry of Health in Ramallah (Fatah) are mainly received from the international community (30 percent); tax collection by Israel for VAT in the occupied territories and customs (30%) and local revenue (locally collected tax 20%).

According to the AMA, the Agreement for the Movement and Access in November 2005, (negotiated by Condoleezza Rice) borders were open as long as European observers were allowed in. This however has not been effected since June 2007. Another part of this agreement was to re-establish a connection between the Gaza Strip and the West Bank. In the initial phase after the elections of 2006, although Hamas was democratically elected, they were not (yet) in full control. However since the 14th June 2007, Hamas came into control and took over power and displaced Fatah. There was fighting between the two and approximately 300 casualties on both sides. Since that time the Rafah border with Egypt is almost completely closed<sup>63</sup>. Initially Hamas left the Fatah people in their positions, however later they started moving people around in various posts. This caused a lot of unhappiness among the Fatah health workers and many stayed at home either voluntarily or after disagreements/fights. Some people were ordered to stay home since they spoke

60 See, e.g., World Health Organisation, Gaza Strip Initial Health Needs Assessment, Gaza, 16.2.09, pp. 2, 6-9. 12. [http://www.ochaopt.org/gazacrisis/admin/output/files/ocha\\_opt\\_organizations\\_report\\_early\\_health\\_assessment\\_2009\\_02\\_16\\_english.pdf](http://www.ochaopt.org/gazacrisis/admin/output/files/ocha_opt_organizations_report_early_health_assessment_2009_02_16_english.pdf) (accessed 16.3.09)

61 Based on a meeting between SVA and Mahmud Daher of the World Health Organisation Gaza office, 3 Feb 2009.

62 The sum total of 105% is apparently due to overlap between service providers.

63 On this see e.g., PHR-Israel, Holding Health to Ransom, August 2008, pp. 14-15. Accessible at [http://www.phr.org.il/phr/files/articlefile\\_1217866249125.pdf](http://www.phr.org.il/phr/files/articlefile_1217866249125.pdf)

out too much and became politically active instead of medically.

The Erez crossing with Israel has been problematic since the same time, sometimes it is open sometimes closed since June 2007. Although the total number of patients allowed to leave for medical treatment has been more or less the same, the proportion of successful medical applications for treatment outside the Gaza Strip has decreased from approximately 90% in the beginning to approximately 60% before the attack.

### **The health workers strike<sup>64</sup>**

On the 30 August after 40 people in key positions in the Health sector left the Union of Health Services in Ramallah, (mainly Fatah) people called for a strike. About 50% of doctors, nurses and administration responded to this call and started striking. The proportion of administrators striking was bigger than the proportion of doctors and nurses. Over time, gradually the number of people striking decreased from approximately 50% to 25% just before the war. The reason for this decline may be threats or worries about losing their permanent jobs. At the start of the war on the 27th December the Union of Health Services in Ramallah called the strike off.

### **Casualties and attacks**

In the initial air strikes on 27 December 2008 approximately 600 people were killed including an Italian journalist and approximately 2000 people were injured. By the 29th January 2009 there were 1308 deaths and 5335 wounded. Four hundred and eleven children under the age of 18 and one hundred and six women. Sixteen health officials died on duty, these were mostly ambulance drivers as well as people going home from work. Thirty-three primary health care centres were destroyed of which two completely. Nine hospitals were damaged, of which the AIQuds hospital was the most severely damaged.

### **Drugs and equipment**

Before the 27th of December there was a severe shortage of medical drugs. One hundred and five drugs out of a list of one hundred and eighty were unavailable (105/180; over 50% shortage). From the consumables 250 out of a list of approximately 1000 was out of stock (25%) additionally there is a list of 70 essential laboratory materials missing presently in the Gaza strip.

### **5.3 Referrals of the wounded to Egypt**

According to information given to the group by doctors at Shifa hospital and by Ministry of Health officials, the majority of seriously wounded patients were referred to medical care in external medical centers, exiting Gaza via Rafah Crossing and Egypt<sup>65</sup>.

The head of human resources at Shifa hospital, Dr. Naser Abu Sha'ban, presented the group with a list of 60 patients referred to Saudi Arabia, but stressed that the vast majority of patients had been referred to Egyptian hospitals.

On 7 March 2009, after visiting various hospitals in Cairo to which the wounded had been referred during the attack, AVM met with Dr. Houssam Turqan, Medical Counselor from the Palestinian Embassy in Cairo, who had acted as Coordinator for the treatment of all the patients coming from Palestine to Egypt. Following is his account of the referrals system.

### **Organisation and coordination of activities during the emergency**

"I went to Rafah on the 27th of December, as soon as the attacks started. I wanted to know the situation from as close as possible, and get ready for a possible emergency in the area. I started making some contacts with the Minister of Health, with the Palestinian Embassy in Cairo and with some other organizations.

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<sup>64</sup> For additional information on the strike see World Health Organisation, Health workers Strike, Gaza Strip – Update 30-31 August 2008, and subsequent updates.

<sup>65</sup> World Health Organisation, Gaza Strip Initial Health Needs Assessment, Gaza, 16.2.09, p. 10. [http://www.ochaopt.org/gazacrisis/admin/output/files/ocha\\_opt\\_organizations\\_report\\_early\\_health\\_assessment\\_2009\\_02\\_16\\_english.pdf](http://www.ochaopt.org/gazacrisis/admin/output/files/ocha_opt_organizations_report_early_health_assessment_2009_02_16_english.pdf)

The first patients arrived only the 31st of December, at around 18:00, as a result of the conversations with the representatives of the Minister of Health, especially with Dr. Tarik Al Mahalawi, Director of Health of North Sina District. After we received the permit to receive the injured, we designed a plan to face the emergency:

- upgrading Al Arish Hospital to function as a triage center;
- sending teams of doctors specifically trained to do triage and to face the emergency
- setting up a net of Egyptian hospitals (belonging to the Ministry of Health) which would be fit to receive patients;
- classifying these hospitals according to their main specialties;
- distributing the patients to the hospitals according to their injuries. "

### **Triage system**

The injured arrived through Rafah border with Palestinian ambulances. The transfer from the Palestinian ambulances to the Egyptian was done in a few minutes. The bureaucratic issues were reduced to a minimum to facilitate the access. The patients were then sent directly to Al Arish Hospital for triage. According to their diagnosis, they were sent to the different hospitals in Cairo by planes or ambulances.

### **Patients' transfer**

- The most severe cases were sent directly to Cairo by plane. Dr. Houssam affirmed that more than three times military planes were used to transfer the most serious cases to the hospitals in Cairo. Only the patients whose life was threatened travelled by plane.
- There were several very severe cases whose medical condition prevented the trip from Al Arish to Cairo. They were sent to the University Hospitals in Suez and Isma'iliyah.
- The moderate cases were sent by ambulances to Cairo and were distributed to the hospitals.

### **Distribution of patients to hospitals**

17 hospitals participated in the treatment of the patients from Gaza: 16 of them are related to the Ministry of Health. The last one was the Palestinian Hospital which, in spite of being an NGO hospital (belonging to the PRCS), insisted on receiving patients from Gaza. The Palestinian Hospital received this particular concession from the Minister of Health, due to its direct link with the Palestinian people.

The hospitals were classified and chosen according to their specialties, and the patients were referred according to these criteria, for instance:

- Al Maadi Military Hospital received most of the cases of blindness due to explosions
- Al Hilmiya Military Hospital received most of the burn cases
- Al Hilal Al Ahmar (Red Crescent) Hospital received most of the trauma cases, etc

The summary of the flow of patients from Gaza to the 17 Egyptian hospitals from 31.12.2008 to 03.03.2009 was provided by Dr. Houssam (in Arabic) and is retained by PHR-Israel.

### **Patients**

The total number of patients arriving in Egypt from Gaza, from the beginning of the Israeli Offensive till the day of our meeting (07.03.2009), was 1146.<sup>66</sup> Most of these were injured, but from the 15 of January on, many cases of sick patients made their way into

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<sup>66</sup> But cf. idem. The discrepancy in figures can be partly explained by changes between 22.1.09 and the date of this meeting, but it also reflects the inability of organizations on the ground in Gaza to follow the constant changes at the Crossings with accuracy. Due to political and bureaucratic limitations on coordination of the non-governmental sector in Gaza with the medical centers in Egypt, cross reference on these issues is extremely difficult.

the Egyptian Hospitals. The Ministry of Health accepted them together with the injured, because they were aware of the difficulties of chronic patients both to get their treatment in Gaza and to go abroad for treatment via Erez Crossing.

To the 1146 patients had to be added more than 1000 care givers, who accompanied the patients from Gaza and were to be hosted in the hospitals providing them with food, clothes and other basic needs.

**43 patients died** in Egypt.

At the present moment (7 March 2009), **650** patients have been discharged and **390** are still in Egypt. Of these, only **70** are injured. These data explain that the number of chronic patients has increased in the last few weeks, while the number of the injured decreases, as they are returning gradually to Gaza.

### **Injuries: Amputations and burns**

Dr. Houssam opened this chapter on the treatment of injuries by appreciating the work of the Palestinian medical teams who treated the patients in Gaza Hospitals. It is obvious that they worked under a terrible pressure in an emergency situation, under insane job conditions, overloaded by the load of patients and with little resources. Their aim during the attacks was saving lives, and this was done with competence and a high professional standard.

He confirms the fact that many wounds and burns reacted in an abnormal and unexpected way. He described cases of:

- abnormal evolution of the injuries,
- absence of skin and subcutaneous tissue,
- “crushed” wounds in fractures
- “coagulation” of the wounds, preventing the granulation of the tissues.

Some biopsies were taken in Ma’hed Nasser Hospital, but they are still under analysis.

No specific assessment was done to suspected cases of White Phosphorus.

Nearly **150** cases of amputations were treated in Egyptian Hospitals. 65 of these have already received prostheses and have left the country, while 70 are still on the waiting list. In most of these cases, it is the condition of the stumps that has delayed the use of prosthesis.

### **Social welfare and psychological support to the patients**

Medical treatment has been supported by social and psychological activities, in order to reach a holistic healing of the injured. Many organizations, NGOs, businessmen, and volunteers have contributed generously to support the patients morally and economically.

An important point of this holistic service has been the institution of a team in every hospital where patients from Gaza were admitted. These teams are composed of a Palestinian doctor and two Egyptian doctors. Their goal was to assess and follow up the social and psychological needs of the patients from different points of view: from dealing with trauma to the need for pocket money; from bringing clothes and telephone cards to providing wheel chairs or prosthetic limbs.

A daily report was required from these teams to update on the situation of the patients from Gaza in each of the 17 Egyptian hospitals. Dr. Houssam has followed these reports personally and has supervised the treatment and the welfare of the patients.

For this purpose, the cooperation between the Palestinian Embassy in Cairo, in the person of the Coordinator of the Palestinian patients – Dr. Houssam Turqan – and the Arab Union of Doctors, which has provided the psychological and humanitarian support, has been essential.

The cooperation of the Palestinian Hospital has also been important for the referral of some patients to private hospitals in Egypt or abroad to complete their treatment.

### **Funding**

- The treatment and transportation of all the patients admitted to the 16 public/military Egyptian Hospitals have been a donation of the Egyptian Minister of Health.
- Some specific services, such as wheelchairs and prosthetic limbs have been provided by private donations (individuals or associations)
- The treatment of the patients admitted to the Palestinian Hospital has been entirely supported by the hospital through private donations.

### **Discharge and return to Gaza**

The return to Gaza is always done via the Palestinian Hospital. Patients are transferred to the hospital to get ready for their departure and leave as soon as possible.

The ambulances for those who need it are provided by the Egyptian Minister of Health.

Every patient and every care giver leaves the hospital with a bag of new clothes and a box of food and other basic goods. These goods are provided by private donations.

For those not requiring ambulances, a taxi and a pick up for the luggage is paid for by the Palestinian Embassy.

## **5.3 Site visit: primary health care clinics<sup>67</sup>**

Present: AVM, RS

### **Hay es Salam, Jabalia Al Rayes.**

The residential area has been totally destroyed during the ground invasion. There are remnants of apartment buildings in a wide area. Partly the area has been levelled by bulldozers. In one area tents have been set up as shelters for people whose houses have been destroyed. While we visit, mattresses and blankets are distributed by UNICEF.

PMRS is using one of the tents as a temporary clinic.

Not far from that place, another mobile clinic has been temporarily established in the undestroyed part of a building, most of which is in ruins.

During the attacks, PMRS could not reach the area. We are told by the staff that people come for treatment of wounds, but mainly for ordinary health problems, which can be dealt with by primary health care services. Among them are many with chronic diseases like diabetes or hypertension. There are also cases of severe psycho-trauma with in some cases even paralysis.

The area is densely populated. It was neglected. There was no other medical assistance than that of the mobile clinics. These came before the attacks once or twice a month. "Small" attacks were common for a long time even before the intensive attacks since the end of December 2008. The border is close by.

Fortunately patients with chronic diseases had received their medications for a month in advance.

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<sup>67</sup> Surveyed together with Nahed of the Palestinian Medical Relief Society, Wednesday, 4th February 2009.





PH2 Hay es Salam, Jabalia Al Rayes, PMRS health post in tent. Photo by RS during site visit.



PH3 Hay es Salam, Jabalia Al Rayes, PMRS clinic half destroyed. Photo by RS during site visit.

Before the attacks, leaflets were dropped from airplanes, telling people to leave. Many, however, remained. They were used to minor attacks and did not at all expect such a heavy attack. Furthermore they did not know where to go, also because the same leaflets were also dropped in other areas, where they possibly might have gone to. In the beginning only 10% of residents left, at the end only 10% remained.

## Omar Nasr Clinic

Dr. Muhammed Yaghi of PMRS welcomes us. The clinic is situated close to the water treatment plant. It is new, modern, well equipped and clean. It serves as the only clinic in an area where 3.500 (three thousand five hundred) people live. Most of the men worked in Israel before. They are now unemployed.

Malnutrition and anaemia are big problems in the neighbourhood. In 2007, more than 65% of children under five years of age had a haemoglobin of less than 11 g/dl blood (should be between 11 and 14 for children between 2 and 6 years of age). The clinic has a follow-up programme for all children under five (the UNRWA child care programme ends at the age of two years after the end of the main vaccinations).

In March 2007, the dam of a newly built lagoon for the water treatment plant broke because of poor construction. The area was flooded by sewage. Two children and three adults died. The clinic had to be closed for six days.<sup>68</sup>

There is a perinatal care programme. Deliveries are assisted only in cases of emergency. Family planning is offered, but not much used.

## PMRS-clinic in Jabalia City on the edge of Jabalia Camp.

We are received by Dr. Wael Abu Onn, paediatrician, and Dr. Lamia Obeid, gynaecologist.

The clinic offers ante- and postnatal care as well as family planning, the latter only to married women with children. However, the use of family planning is minor. There is health training for women. Home visits are done.

During the attacks several cases of spontaneous abortion occurred, which doctors attribute to psychological trauma. There were four cases of intrauterine death without any physical reason.<sup>69</sup>



PH4 PMRS Primary Health Care Clinics. 04.02.2009, 13.32. Photo by AVM

Already before the attacks, there was shortage of prophylactic drugs such as iron or folic acid for pregnant women. This shortage was due the siege of the Gaza Strip. During the attacks the demand for drugs rose, while at the same time stocks could not be renewed. In total, the clinic had to treat 5.000 (five thousand) cases during the attacks.

The regular follow-up programme for under-fives is for free. The PMRS-programme for under-fives is the same, however, follow-up is said to be poor in government clinics. In the area of this clinic, 45% of children under five years of age are under-weight and 63% anaemic. These figures got worse under the siege.

68 See 6.1 above

69 See 6.1 above



## 5.4 Site visit: Environmental hazards<sup>70</sup>

Present: RS

Dr. Zeyad H. Abu Heen, head of the Department of Environment and Earthsciences, Assistant Professor of Geophysics, The Islamic University, Gaza;

Hisham Matar and Raed Khaldi, Water Resources Managers;

Prof. Dr. Samir Afifi, Department of Environment and Earthsciences, The Islamic University, Gaza, and chairman of the GEF/SGP (Small Grants Programme) Palestine.

And others.

### **Sheikh Zayed residential area in Beit Lahya.**

A bomb crater can be seen on a spot at some distance from residential buildings, where two important water supply tubes cross.<sup>71</sup> The bomb attack occurred on 29th December 2009 by a F 16 aircraft. Water supply has been interrupted to many residences. It is not clear, whether the pipes have been hit on purpose.



**PH1 Crater water pipe damaged.** Photo by RS during site visit.

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<sup>70</sup> Surveyed with the Department of Environment and Earthsciences, The Islamic University, Gaza, 3 Feb 09

<sup>71</sup> See 6.1 above

### **Water treatment plant Beit Lahya.**

The lagoons lie 12 m above the surrounding area and have been built in 1978. The maximum capacity of the plant is 9.000 (nine thousand) m<sup>3</sup> daily. However, the daily afflux is at present 19.000 (nineteen thousand) m<sup>3</sup>. The discharge occurs in sand stone. Because of the overload, treatment is not sufficient, and water remains contaminated. Drinking water in Gaza contains according to Prof. Afifi, 350 mg of nitrate per liter (the EU allows 50 mg/l). It is suspected that there is poliomyelitis virus in the water and in the sludge of this treatment plant. I take samples for virologic examination.

### **Organic farm of the Safe Agricultural Producers Society (SAPS) in Beit Hanun.**

On 12th January 2009 an area at a distance of 300 m from the farm has been bombed by F 16 aircraft. Grass was cut shortly after that. When cows ate the grass, two of them died within 30 minutes, another two survived after getting an Atropin injection by a doctor. I take samples of the grass and the soil with control samples at a bigger distance from the area.

### **Ruins of the Ministry of Justice, Gaza City.**

It is suspected that the DIME bomb has been used in the attack on the ministry. On request I take samples from the rubble.



**PH5 Gaza City Ministry of Justice. 31.01.2009, 12.42.**

Photo by AVM

### **Water treatment plant South West of Gaza City.**

The treatment plant has been built in 1999 with support of USAID. Its maximum capacity is 35.000 (thirty five thousand) m<sup>3</sup>, but daily afflux is 50.000 (fifty thousand) m<sup>3</sup>. The dam of one of the lagoons has been hit by a bomb and is being repaired. After the bombing, sewage water contaminated a big area where beduins were living. I take samples for virologic examination.

Samples are sent out via Egypt the next day with members of Human Rights Watch. See Appendix 2 for details.

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## 6. Atypical injuries / weapons<sup>72</sup>

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Many of the medical professionals met by the team reported suspicions of use of non conventional weapons. In this report we separate between **reports of use of such weapons and observed evidence of presence of such weapons**. Directly observed evidence of atypical weapons on patients has already been discussed above, Chapter 3 “Injuries”.

### 6.1 Indirect reports on the use of weapons

According to hospital directors and Ministry of Health officials, during the war a wide range of weapons were utilised, from small unmanned airplanes to Apache helicopters and F16 fighter jets.

Many patients and doctors, as well as two international weapons experts from the US (Marc Galasco, Human Rights Watch) and the UK (Chris Cobb-Smith, Amnesty International), who were researching on the ground, reported the use during this attack of unmanned airplanes or **drones** for airstrikes. According to the director of the European hospital in Khan Yunis, drones were used to fire rockets causing dismemberment and/or amputation.<sup>73</sup> In this context the so-called “**disc-bombs**”<sup>74</sup> or “**CD-bombs**” were mentioned.

(RS) Dr. Muhammad Al Kashif, director of hospitals at the Ministry of Health, stated that his own flat was burnt by **white phosphorus bombs**, and civil protection was prevented from approaching.<sup>75</sup> Dr. Nafez Abu Sha’aban, head of the burns department at Shifa Hospital, Dr. Abu Shaban said that people with second degree burns had developed higher degree burns, when they came for treatment for the second time. According to the doctor, a feature of these burns was that wounds kept on bleeding, almost as if there was no adequate clotting. The white phosphorus was very sticky, mud-like and equally difficult to remove from walls (buildings) as well as from the skin of patients.

He also said that there were many patients with relatively minor external injuries, but when they underwent surgery, severe internal damage was noted. He also knows of cases where the fire brigade had to come up to four times, until a fire was finally extinguished.<sup>76</sup> According to Dr. Naser Abu Shaban (head of human resources at Shifa hospital in Gaza), during the attacks, wounded people arrived at the hospital, whose burns emitted white smoke and contained small dark foreign bodies. In order to keep the capacity of the hospital ready for more patients to arrive, those whose surface area was burnt up to 10 to 12% were sent home after initial treatment. Some came back some days later in severe conditions. Their wounds had become more extensive and deeper. Some of them died. Most of them came from Beit Lahia and Khan Yunis.<sup>77</sup>

Dr Zeyad H Abu Heen, Head Department of Environment and Earth Sciences and Assistant Professor of Geophysics at the Islamic University of Gaza included among the non-conventional weapons used in civilian areas the use of White Phosphorus and the DIME (Dense Inert Metal Explosion) Bomb amongst other rarely used or seen weaponry.

Hospital directors in all parts of the Gaza Strip, who reported many maimed patients with limb loss, suspected that these were due to DIME bombs which release a massive amount of energy in a small place and have a high impact. The Director of Shifa Hospital, Hussein Aashour, strongly suspected that so-called DIME bombs were utilised, since many of the patients arriving at that stage came with completely destroyed bones. According to him a typical sign of the DIME bomb is a high energy transfer in a small area, which leaves the hard tissues completely destroyed but is more gentle on the soft tissues.<sup>78</sup>

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72 This issue was neither the main focus nor the field of expertise of the team. However, reports are forthcoming from both Human Rights Watch and Amnesty International on these issues, and in some cases consultations were held between the team’s forensic experts and these organisations’ weapons experts in order to confirm hypotheses. Testimonies are presented here as heard and experienced by the team.

73 Personal communication 2 Feb 2009 during a meeting with Chris Hobbs-Smith in Gaza. See also 3.2 and notes above.

74 For a direct first hand observation of this weapon by the team on a patient see above, 3.2.

75 Personal communication 29 Jan 2009 during a visit to Shifa hospital.

76 Personal communication 29 Jan 2009 during a visit to Shifa hospital.

77 Meetings of RS, SVA with Dr. Nafez Abu Sha’aban, head of burns, and Naser Abu Sha’aban, human resources director, Shifa hospitals, 29 Jan 2009.

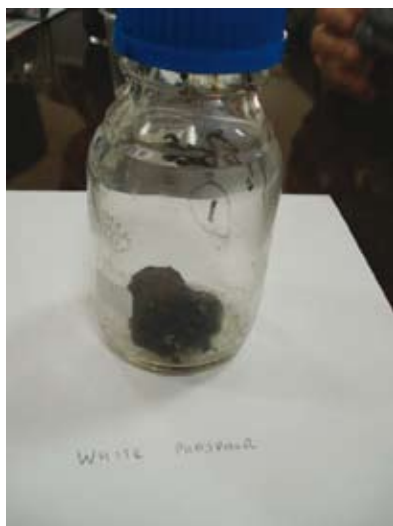
78 Personal communication 1 Feb 2009 by Hussein Ashour, Shifa hospital director, to SVA.



Concerns were raised that depleted uranium might have been used, however, no further details were given to support this suspicion other than its use in South Lebanon in 2006.<sup>79</sup> There was also reference by a hospital director in the south of Gaza to two different types of high impact bombs. One was a particularly big weapon, utilised to implode buildings, up to 4 storeys high without affecting the neighbouring infrastructure. Another type was “an earthquake bomb” which after hitting the ground, shook the earth and most likely had the intent of collapsing the tunnels under Rafah Crossing and the border with Egypt, by shaking the ground. It was feared that the foundations of existing houses were also affected by this type of bomb.<sup>80</sup> The director of Abu Yussuf Alnajjar hospital told of many people who were digging the tunnels presenting to hospital, complaining of severe headache, possibly as a result of gas released from a bowl-shaped bomb discharging gas with a very bad smell.<sup>81</sup> According to the director of the European hospital in Khan Yunis, patients reacted unusually to injuries as patients with Haemo(Pneumo)thorax initially stabilised deteriorated suddenly and rapidly and did not respond to CPR, indicating possible multiorgan failure.<sup>82</sup>

## 6.2 Observed evidence of the presence of weapons

(RS) Dr. Nafez Abu Sha’aban, showed the team a piece of white phosphorus, which had been collected at an UNRWA school compound. He had kept it in a tin with milk powder. After cleaning it from the powder, the team observed how it started immediately emitting white smoke. Dr. Naser Abu Shaban showed a piece of a brown substance to the team and told them that it was white phosphorus. Its smell was associated with garlic by some of the team, and also with that of a Maggi (soup concentrate) cube.<sup>83</sup>



**AW1b White Phosphorus sample.**  
Photo by SVA



**AW1a Shifa’ Hospital White Phosphorus**  
Demo 29.01.2009, 15.07. Photo by AVM

SVA met with Chris SG Cobb-Smith, an international weapon expert from the United Kingdom who was there on behalf of Amnesty International: He showed me Cubicles from unknown origin but possibly consisting of Tungsten, which are fired from a Drone (unmanned aeroplane). These are small cubes of approximately 1.5 mm diameter. They apparently consist of heavy metal since they are able to penetrate steel plates of 3mm thickness.<sup>84</sup>



**AW2 Metal cubes ammunition, shown by**  
Chris SG Cobb-Smith. Photo by SVA.

### Samples of suspected DIME or other unknown weapons

No clear medical cases were observed by the team that suggested the use of DIME. However with the aid of the Department of Environment and Earth Sciences, The Islamic University, Gaza, samples were collected of soil, water, slush and grass suspected to be contaminated by unknown weapons, which could be DIME or other types of e.g. chemical weapons. Please see Appendix 2 for the list of samples sent for analysis in the UK.

<sup>79</sup> Personal communication to RS 3 Feb 2009, during a visit to an NGO called “the Committee for the Documentation and Prosecution of Israeli War Criminals” in Gaza city.

<sup>80</sup> Personal communication by Abdallah Shchadeh, Abu Yussuf Alnajjar hospital director, to SVA, 2 Feb 2009, during visit to the hospital.

<sup>81</sup> Personal communication 2 Feb 2009 by hospital director, during a visit to Abu Yussuf alNajjar hospital.

<sup>82</sup> Personal communication 31 Jan 2009 during a visit to the European hospital in Khan Yunis.

<sup>83</sup> Meetings of RS, SVA with Dr. Nafez Abu Sha’aban, head of the burns department, Shifa Hospital, and Naser Abu Sha’aban, human resources director, Shifa hospital, 29 Jan 2009.

<sup>84</sup> Personal communication 2 Feb 2009 during a meeting with Chris Hobbs-Smith of Amnesty International in Gaza.

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## 7. General impressions and conclusion

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The underlying meaning of the attack on the Gaza Strip, or at least its final consequence, appears to be one of creating terror without mercy to anyone. Nearly all the people we spoke to slept cuddled together with the other members of their family in a central room of the house during the three weeks of attack. No one knew where or when the next bomb or explosion would occur. It appears that the wide range of attacks with sophisticated weaponry was predominantly focussed on terrorising the population.

The attack caused an enormous amount of infrastructural damage and destruction, displacing a large volume of the population to other areas. An estimated 21,000 homes were destroyed or badly damaged and the total number of people being displaced from their original home is estimated over 50,000.<sup>85</sup>

A large number of places of worship (mosques) were attacked and many of them completely destroyed. The attack on the places of worship deprived ordinary civilians from worshipping at places of sanctuary and peace, and forcing them to pray outside in the road or squares.

A large number of educational buildings were also completely destroyed, including a school. Because of the densely populated Gaza Strip (3800 people per km<sup>2</sup>) there is a chronic stress on the existing school buildings. The majority of school buildings are used for two different shifts each; one school shift use the building in the morning and another shift the same building in the afternoon. The destruction of existing school buildings will undoubtedly have an aggravated effect on the educational system.

The patterns of injuries, many of which were apparently caused by anti-personnel weapons,<sup>86</sup> are characterized by a high proportion of maiming and amputations, which will cause lifelong disabilities for many.

That said, one of the people the team met with, Antoine Grand of the ICRC, does not consider the issue of specific weapons a significant one ("The weapons issue is a fake issue"). The main issue is the attack on civilian population in pure residential areas. That is "violation enough" of the Geneva Conventions and it took place with "weapons as conventional as a bulldozer".<sup>87</sup>

There is absolutely no doubt that the number of medical institutions, such as hospitals and mobile clinics were specifically targeted including a large number of ambulances. A number of ambulance personnel told their stories of repeated attacks on their ambulances over the last year. Many of them were shot at, at least five times over the last two years.

There were many stories about patients who were prohibited from being evacuated by ambulances for medical care for their wounds. A number of patients died as a result of the delay in transportation to a medical institution.

Besides the large-scale, largely impersonal destruction that the team witnessed and heard of, it was especially distressing to hear of individual cases in which soldiers had been within seeing, hearing and speaking distance of their victims for significant stretches of time, but despite the opportunity for "humanisation", had denied wounded people access to lifesaving medical care, or even shot at civilians at short range.

The attack had an enormously distressing effect on the population of children and it appears that children were disproportionately affected by the attack. There were not only many (directly as well as indirectly) injured and maimed children, but there was also severe psychological damage to many of the child witnesses interviewed. Children are prone to develop severe psychological damage as a result of their family members, friends or other acquaintances being hurt and not being able to protect the children.

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85 UN Occupied Palestinian Territory Gaza Flash Appeal, 2009 Consolidated Appeal Process, p.1 [http://www.ochaopt.org/gazacrisis/admin/output/files/ocha\\_opt\\_gaza\\_flash\\_appeal\\_2009\\_02\\_05\\_english.pdf](http://www.ochaopt.org/gazacrisis/admin/output/files/ocha_opt_gaza_flash_appeal_2009_02_05_english.pdf) (accessed 16.3.09).

86 See, e.g., Chapter 3 above. Human Rights Watch and Amnesty International both have forthcoming reports by experts on this issue.

87 Personal communication during an interview at ICRC offices in Gaza, date.

In general this attack left the population of the Gaza Strip without any hope for the future. At nearly any point in the Gaza Strip destroyed houses, mosques, factories as well as other buildings can be seen. As a result of the decreased capacity it will take a long time before these buildings can be repaired. Additionally there are a large number of people wounded and/or permanently maimed or scarred. These are likely to act as permanent reminders of the three week period of terror for nearly all citizens of the Gaza strip.

In summary, an object of warfare is to acquire military dominance over the opponent. However, in the situation in the Gaza Strip, there seems to be already a significant military dominance from one opponent over the other. The real reason for this severe military attack on a predominantly civilian population remains rather obscure.

SVA, 4 Feb 2009. Finally the whole team met with Jamal (a PMRS activist who assisted the team in their work) at his family apartment. This was a touching visit. Jamal owns a nice apartment in a well-to-do suburb. However it was clear from circumstances that the war is obstructing normal family life.

First of all the building was not finished as a result of the short supplies as a result of the border closures. Cement is in short supply since it can be utilised for other purposes than building.

Secondly all the windows were taped with plastic tape in order to prevent shattering glass in case of a bomb attack in the surroundings. The family have been sleeping like most other families, in one room with all people in order to protect the children in case of a nocturnal attack.

His twelve-year-old disabled son expressed anxiety before going to school the next day since there had been rumours around that the Israelis would bombard schools the next day. His seven year old daughter asked us why we could leave Gaza and Palestinians not. She further expressed great wariness about us meeting Israeli people.



Gaza city, Team picture

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## 8. List of missing information still important to ascertain

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The information that can be gathered by a small group within one week is by nature preliminary and partial.

- It is necessary to continue the work of **corroborating and cross-referring testimonies** by multiple victims and eyewitnesses as patients return from medical care overseas.
- It is necessary to continue the work of **linking reports of events to sites at which they were said to occur, to testimonies of eyewitnesses and to physical evidence on victims.**
- It is necessary to continue and to extend the **records on attacks on medical facilities and personnel**, and on the context in which they occurred.
- It is necessary to hold an in-depth **assessment of the impact of the attacks on the health system, on public health and sanitation and on the environment for the short, medium and long term.** It is important that public health experts, epidemiologists and environmental experts participate in this part of the research, in addition to local fieldworkers and academics.
- It is necessary to **assess the significant emotional damage caused to adults and children** as a result of loss of loved ones, physical and emotional trauma, loss of home and livelihood, ongoing fear and lack of security for the future and the ongoing inability to exit Gaza. It is also important to **assess the professional abilities available in Gaza** in this respect. It is important that this work be carried out by mental health professionals who are Arabic-speaking men and women.

This work should be carried out by impartial male and female experts who can speak Arabic, who are experienced in reporting violations of international humanitarian law and who have experience with conflict regions. Legal experts, forensics experts, medical experts and weapons experts, as well as local human rights fieldworkers, social workers and health professionals should guide this work.

There is also a need to coordinate the various projects of research and fact-finding by various actors in order to share information and prevent unnecessary overlap. Especially in the legal sphere, methodology of evidence-gathering should be standardised.

The team retains the details of all the cases reviewed, as well as several cases and witnesses that were not followed up, which it will make available to future missions. Please contact Mr. Ran Yaron at Physicians for Human Rights-Israel ([ranyaron@phr.org.il](mailto:ranyaron@phr.org.il)) in order to coordinate permission to view specific materials for this purpose.

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## 9. Legal Analysis by Magali Jandaud

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### Background and justification

On 27 December 2008, Israel launched an intense military operation called Operation Cast Lead on the Gaza Strip, which has been the most offensive since 1967.

The 22 days of military operation made up to 1,417 victims, out of which 926 were civilians, 409 women and children, and 236 fighters, not to mention the 5303 injured, according to the most recent figures published by the Palestinian Centre for Human Rights (PCHR, <http://www.pchrgaza.org/files/PressR/English/2008/36-2009.html>).

Such terrible figures show that the majority of casualties are civilians and raises serious concerns regarding the conduct of hostilities. The fact that this Operation was launched unilaterally, that civilians constitute the majority of casualties and that the UN Security Council Resolution 1860 calling for *“an immediate, durable and fully respected ceasefire, leading to the full withdrawal of Israeli forces from Gaza”* was not respected by either side, shows a general collapse of international law during (and before) the Operation, and more generally in the region.

The legal translation of the mission findings within International Humanitarian Law (IHL) set of rules and principles is crucial for a more objective approach of an already sensitive conflict. Reaffirming the importance of international law can also benefit to the reconstruction phase in a ‘grey zone’ of uncertain status. Besides, a dispute over a legal status does not mean that no law applies at all.

### I. The Gaza Strip: a disputed legal status

#### 1. Legal determination of the Gaza status and integrity of the OPT

When Israel completed its Disengagement Plan by removing Israeli settlements and evacuating permanent military installations from Gaza in 2005, after 38 years of occupation, it also declared the end of its responsibility and obligations towards the Gaza Strip. When the occupation of the Gaza Strip and the West Bank started in 1967, Israel refused to consider them as occupied territories on the ground that no sovereign State was existing before. Therefore it did not recognize its occupation over what it considered were ‘administered’ or ‘disputed’ territories. The legal dispute has its importance, particularly in light of the current conflict, as it determines the category of applicable law and respective obligations.

Occupation starts when a foreign military entity has factual control over a territory or a population. And despite the 2005 Disengagement Plan, Israel still controls Gaza borders, airspace, territorial waters, population registry, tax system, power supply, and movements of inhabitants.

Law of occupation applies when there is an international armed conflict, when a foreign military force has made an incursion on enemy territory. Despite the fact that there is no officially recognized Palestinian State, most experts, UN Resolutions, and the International Court of Justice in its Advisory opinion regarding the separation wall in 2004, all consider the Palestinian territories occupied.

One could also argue that a disengagement from the Gaza Strip is not sufficient to declare the end of the occupation of an indivisible territory, as long as parts of it are still occupied (in the West Bank).

#### 2. Applicable law in Gaza and during the conflict

The occupying power has the right to protect itself, but the measures used to do so must allow the occupied population to live as normal a life as possible. Governed by the Fourth Geneva Convention (GC IV), it is responsible for the protection of everyone living under its occupation from any form of brutality, reprisal or collective punishment, and to guarantee access to food, water and medical care, as well as employment and education at all times. (Article 23-30, 55 - 56 GC IV)

As an occupying power, Israel has the obligation to ensure sufficient supplies in terms of shelter and other supplies essential to the survival of the civilian population of the occupied territory (Article 69-70 of Protocol I).



Israel has not ratified the additional protocol I, but remains bound by the full scope of international customary law governing international armed conflict. Most rules governing international armed conflict have acquired customary law status, as documented by the ICRC's compilation on customary international humanitarian law (Cambridge University Press, 2005).

The rules of IHL are binding not only on states as such, but on individuals including members of the armed forces, ministers and government officials. Unless a treaty or customary rule of international law provides otherwise, military necessity does not justify a breach of these rules. IHL provides the maximum possible protection of people in armed conflict through a balance between 'military necessity' on one hand, and 'humanity' on the other. The principles of proportionality and distinction apply to every aspect of the conduct of hostilities. It is prohibited for example to carry out attacks against a military objective that would cause disproportionate harm to the civilian population.

**Moreover, the Israeli High Court of Justice in a recent decision has defined the legal framework as follows:**

*"International humanitarian law, found particularly in the Hague Regulations and the rules annexed to it, which constitute customary international law; the Fourth Geneva Convention, of which the customary rules make up part of Israel's laws [...] and the First Additional Protocol for the Geneva Conventions to which Israel is not a party, however its customary provisions make up part of Israel's laws [...]"*

HCJ 201/09, 248/09 Physicians for Human Rights et al. v Prime Minister et al. (decision of 19 January 2009)

IHL (jus in bello or the laws of war, scope of the present fact-finding mission) applies regardless of whether the trigger of hostilities was just or not according to jus ad bellum.

Another very important principle of IHL is the independence of jus ad bellum from jus in bello. Jus ad bellum concerns the legality of the use of military force. It is regulated by the UN Charter prohibiting in principle the use of military force, except for two exceptions: military self-defence (interpreted restrictively as recourse to force should always be the last resort), or operations to restore world peace and international security on the basis of a decision of the United Nations Security Council taken under Chapter VII of the Charter.

International law requires that the use of force comply with Article 51 of the Charter of the UN: it must be invoked in response to an 'armed attack' and be 'necessary and proportionate', otherwise it amounts to an aggression.

In its *Nuclear Weapons* advisory opinion the International Court of Justice (ICJ) stipulates clearly that a self-defence intervention should comply with the laws of armed conflict. In the *Nicaragua vs. USA* case of 1986, the ICJ establishes a hierarchy in the gravity of threats and attacks.

In the present case, it is questionable whether an occupying power can invoke self-defence against its own occupied territories. The ICJ would certainly be the most legitimate body to advise/litigate over such a matter.

## **II. Analysis of the cases relevant to the conduct of hostilities (jus in bello) during Cast Lead operation**

### **1. Denial of medical evacuation and attacks on medical teams**

**International Humanitarian Law (IHL) provisions:** Art.15-21, 23, 38, 63 GIV, art. 10 PI, 17 PI.

The Geneva Conventions provide that parties to a conflict at all times should without delay take all possible measures to search for and collect the wounded and the sick (Art 16 CGIV, art 8 ProtI), protect them, ensure their medical treatment and search for the dead (Art 32-33 Prot I). Medical assistance is one aspect of humanitarian assistance and its beneficiaries are primarily needy civilians (all cases interviewed) and prisoners of war.

The weaknesses and lack of transparency of the 'coordination mechanism', jointly coordinated by ICRC/PRCS, are clearly demonstrated in most of the documented cases. Interminable delays due to procedural hurdles (particularly inadequate in times of emergency) amount to a de facto denial of evacuation (by omission if not wilfully) and as a result, to a denial of access to life-saving medical assistance.

International humanitarian law prohibits attacks on medical personnel, medical units and medical transports exclusively assigned to carry out medical functions. Medical personnel are no longer protected if they participate to military activities (see Art 19 CGIV, HCJ PHR-Israel vs. Prime Minister et al), in which case, the burden of the proof lies with the party making such claim.

IHL clearly stipulates that the parties to the conflict must allow and facilitate rapid and unimpeded evacuation of civilians in need (art 23 CGIV). It also covers medical personnel clearly distinguishable under the Red Crescent emblem (both protective and indicative). The reported attacks on medical teams on duty (Palestinian Red Crescent Society recorded 15 of its medical staffed killed and 21 injured) constitute a grave breach of humanitarian law (Art 147 CGIV). It also affects the victims of the conflict a second time indirectly, by preventing access and evacuation. Not only IDF prevented access by medical teams to wounded civilians, but they also deliberately opened fire at ambulances and medical personnel (even simple civilians trying to rescue their neighbours were shot at) evacuating the wounded.

## 2. Attacks on medical facilities

**IHL provisions:** Art 18, 21-22 CG IV, Art.19-23 CGI, Art 33-34 CGI, Art 21-23 Protl.

All parties to an armed conflict are strictly prohibited to target hospitals, medical facilities (or medical units under Art.19-23 CGI, Art 18 CGIV), medical transport vehicles (Art 21-22 CGIV, Art 21-23 Protl), and medical material (Art 33-34 CGI). The bombardment of the Union of Health Care Committees compound, the Al Wafa Hospital and the Khan Younis Hospital as documented in the case studies, shows that these were intentionally targeted, although they could not be considered military objectives under IHL.

## 3. Types of injuries

**IHL provisions:** GCs, Art 35,36 Protl., Protocol III, Ottawa Treaty (not ratified by Israel), Convention on Certain Conventional Weapons (ratified)

International humanitarian law imposes limitations, in some cases a total ban, on the use of certain weapons if their use inevitably leads to death, if they cause 'unnecessary suffering' (art 35 Prot I) and if they strike indiscriminately. On that basis a number of specific weapons have been prohibited by international conventions: anti-personnel mines, cluster munitions, laser weapons, dum-dum bullets, biological and chemical weapons. Some conventional weapons are not to be used in densely populated civilian areas. The use of nuclear weapons is not strictly prohibited but must respect the principles of distinction and proportionality.

The high rate of maiming and the types of injuries observed lead many experts to think that unconventional weapons (anti-personnel bombs, 'disc-bombs') or other atypical weapons (DIME, White phosphorous bombs-already confirmed by other sources after the bombing of UNWRA buildings- or even depleted uranium) were used against civilians. These weapons might cause tragic effects in the future, both on the environment and human lives. The samples collected by forensic experts will confirm if their analysis results are compatible with the suspected use of prohibited weapons/or conventional weapons used against civilians. Evidences from different independent sources (see Human Rights Watch, Amnesty International investigations and samples collected earlier and therefore more accurate) will also be crucial for any future compensation to the victims.

## 4. Attacks on civilians

**IHL provisions:** Common Art 3 G I, II, III, IV, art 13-23 CGIV, applicable human rights instruments.

The protection of civilians and non-combatants is the cornerstone of international humanitarian law. And also probably the most violated principle. Case studies 1 and 5 are emblematic of abuses perpetrated in times of war. Intimidation, threats, humiliation, inhumane treatment leading to summary executions of some most vulnerable categories of civilians (children, women, the elderly benefit from special protection under IHL and customary law), are perhaps the most blatant violations confirmed by several testimonies in this report.

Some cases show how IDF soldiers gathered civilians in a single house or room, keeping entire families hostage and denying them (including young children and a pregnant woman) access to water and food for several days. Some houses were simply shelled and Israeli soldiers continued shooting at civilians trying to escape. Collective punishment and such terror operations are gross violations of IHL (art 33 CGI). Even the daily 3 hour truce was violated and civilians –thinking they would be safe for 3 hours- were attacked during that time.

The laws of armed conflict prohibit belligerent reprisals against civilians, civilian populations and certain civilian objectives. The parties to the conflict must at all times distinguish between civilians and combatants. Attacks may only be directed against combatants, never against civilians. In order to respect this obligation, parties to the conflict must avoid any indiscriminate attacks, respect the principle of proportionality and take precautions in attacks. Indiscriminate attacks involve ignoring the risk involved in the attacks. The principle of proportionality states that incidental loss of civilian life or damage to civilian objects cannot be excessive in relation to the concrete and direct military advantage anticipated.

The confirmed report that IDF soldiers were using their adversary costumes is also a breach of international law (art 39 Prot.I) and customary law. It also proves that they deliberately targeted innocent civilians, who were showing their good faith by protesting against those who they thought, were Hamas combatants.

Intentional attacks on civilians are grave breaches of the Geneva Conventions, qualified as war crimes in international law, described as “willful killing [...] willfully causing great suffering or serious injury to body or health . . . and extensive destruction and appropriation of property not justified by military necessity and carried out unlawfully and wantonly.” (GCI, art 50; GC IV, art 147).

The core Human Rights law still applicable in times of conflict was also violated (e.g., right to life, prohibition of torture and other inhuman or degrading treatment, respect for religion, judicial guarantee, protection of means necessary for life)

## 5. Public health and environment

**IHL provisions:** Rules governing occupation and international armed conflict

As an Occupying Power, Israel bears under the Fourth Geneva Convention the responsibility to ensure the supply of food and medical equipment, and the maintenance of hygiene and public health both during armed conflict and its aftermath.

### III. Perspectives

The unwarranted killing of the civilians or wounded, torture or inhuman treatment, direct attacks on civilian population, or extensive destruction of property, denial of medical care, are constitutive elements of war crimes, according to the Fourth Geneva Convention (Art 85, 147), for which High Contracting Parties have to ensure respect (Art 1), search and prosecute perpetrators of grave breaches (Art. 146).

- Original initiatives such as the creation of the symbolic Russell Tribunal are worth mentioning considering the general climate of silence and impunity.
- States are under the obligation to prosecute or extradite persons suspected of having committed war crimes on their territory. Individuals can also be prosecuted on the basis of universal jurisdiction or when Geneva Conventions are transposed into national legal systems.
- The International Criminal Court (ICC) Rome Statute was not ratified by Israel (the Palestinian Authority ratified it shortly after the end of Cast Lead Operation but it is not a recognised State). However, the UN Security Council could refer the case directly to the ICC. Alternatively if certain perpetrators happen to hold the nationality of a signatory state (Art 25 ICC Statute), they could be sued there.
- On 10 February 2009, UN Secretary-General Ban Ki-Moon announced the opening of an investigation following the attacks of UNWRA protected compound and schools, which seems quite insufficient considering the UN mandate.

- As stated in the recent letter sent by Human Rights Watch to EU Foreign Ministers (<http://www.hrw.org/en/node/81557/>) and in order to avoid double standards in the administration of international justice, the EU should be in a position to press the UN for an international impartial investigation of allegations of serious violations of international law.
- The International Humanitarian Fact-Finding Commission is also a permanent body available to the international community to investigate grave violations of international humanitarian law (although not recognized by Israel).

As IDF soldiers' grim testimonies start being revealed, all existing accountability mechanisms should be used in order to shed light on the alleged crimes perpetrated in Gaza and allow judicial redress for the victims of the conflict.

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## 10. Appendices:

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### Appendix I - Samples for analysis: Burns

Samples presented to DR of Amnesty international to be taken via Rafah Crossing to Cairo and from there sent to South Africa and Denmark.

Toxicology Laboratory

Institute of Forensic Medicine

University of Southern Denmark,

Odense, Denmark

Division of Forensic Medicine

University of Stellenbosch,

Stellenbosch, South Africa

0. The first slide was from patient AH, 10-year old girl. Explosion injury with burns, Phosphorus, 14 Jan 2009, 63/09 lower limb. The following slides were all numbered consecutively.
  1. OO, Expl. Inj. Deep burn, chest wall, necrosis of skin, muscle and sternum, 14 jan 2009 ?phosphorus
  2. KM Burns, ?phosphorus, all limbs, chest wall, face, incident 12 Jan 2009, date of biopsy 17Jan 2009, forearm, Debridement.
  3. NDH, debridement, hands, expl. inj. Deep burn, ?Phosphorus, biopsy 14 Jan 2009.
  4. OR Biopsy 14 jan 2009, Debridement, thigh, expl. inj. Crushed both thighs, bilateral amputation above knees.
  5. ADM, Expl. Inj, Sent 27 Jan 2009
  6. ZJ Crush injury, arm, expl. inj. Biopsy 14 Jan 2009.
  7. MJ, expl. inj. 15 Jan 2009, Biopsy 15 Jan 2009
  8. Name not indicated, expl. inj. "crushed" lower limb, 16 Jan 2009, biopsy 16 Jan 2009.
  9. Name not given. Expl.inj. The patient brought dead and completely burned 15 jan 2009. Biopsy date 15 Jan 2009
  10. No name given. Expl. inj. Dead body, completely charred 15 Jan 2009, biopsy 15 Jan 2009.
  11. Name not given. Expl. inj. Dead on arrival. Tissue is decalcifying. No slide available yet.
  - 12, 13 and 14 are all from MJ, Expl. inj. Deep burn, all limbs ?Phosphorus, Debridement of deep burns, Incident 11 Jan 2009, Biopsies 14 Jan 2009,
    12. subcutaneous tissue from lower limb, black particles.
    13. Lower limb, ?Phosphorus, many black particles.
    14. Subcutis lower limb. Many black particles, also tissue necrosis and fibrin.

## Appendix 2 - Samples for analysis: environmental material

Samples handed over to FA, Human Rights Watch, on 4th February 2009, to be taken via Rafah Crossing to Cairo and from there via FedEx to:

Prof. Alastair Hay  
 Professor of Environmental Toxicology,  
 Molecular Epidemiology Unit,  
 LIGHT Laboratories  
 School of Medicine  
 University of Leeds  
 Leeds LS2 9JT  
 United Kingdom

No.	Sort of sample	Location	Specific question or remark
1	Water and sludge effluent pool	Water treatment plant Beit Lahia	Virology; Presence of poliomyelitis virus suspected.
2			
3			
4			
5	Grass	Organic farm of "Safe Agricultural Procedures Society" (SAPS) at Beit Hanun	Grass in that plot was cut on 12th January 2009 and given to four cows Two of them died after 30 minutes, two others survived after Atropin injection and drinking milk.
6			
7	Grass	Area near, but further away from bombed area, for control	Has any substance on the grass caused death? Bombing by F16 happened at a distance of 300 m.
8	Soil	Idem	Idem
9			
10			
11	Rubble	Ruins of Ministry of Justice Gaza City	The building was destroyed by four rockets, fired from an F16 plane, on the 30th December 2008 and 1st and 3rd January 2009. There are suspicions that a DIME bomb has been used. Can traces of tungsten be found?
12			
13	Pieces of metal	Idem	Pieces were found and collected in the rubble by Hassan Mortegea on 1 February 2009.
14	Sludge	Gaza West Water Treatment Plant	Same as samples 1 to 4.
15			



### Appendix 3 – Samples for analysis: “disc bomb”

Samples of a patient’s legs were taken; two bone specimens, one subcutaneous specimen, one skin specimen and a piece of the (weapon) disc which was lodged in the leg. These were sent via a representative of Amnesty International through Rafah Crossing to Cairo and from there to Denmark and South Africa for analysis (histology and toxicology).

An additional brain tissue specimen from a patient not seen by the team but suspected to contain tungsten traces was also collected and sent via the same route.

### Appendix 4 - Table of photos<sup>88</sup>

No.	Title
1a	Shurrab Family Interview. Khan Yunis. 02.02.2009, 18.12. Photo by AVM
1b	Muhammad Shurrab’s map of the area. Photo of map 02.02.2009, 17.59 by SVA
1c	Muhammad Shurrab’s photo of the car. Photo of photo 02.02.2009, 17.50 by AVM
1de	Family photos Ibrahim and Qassab Shurrab. Photo of Photo 02.02.2009, 18.43, by SVA
2	Mas’ouda Samouni, on right. Zeitoun 31.01.2009, 13.35. Photo by AVM
3	
4	House of Dr. Az-Addin Abu AlAish, Zemo-Jabalialia. Photo 30.01.2009, 18.17 by AVM
5a	Abed Rabbo family home, photo by JT on date of visit
5b	Souad Abed Rabbo, gun shot, entrance wound, Left buttock, 02.02.2009. Photo by JT
5c	Souad Abed Rabbo, gun shot, exit wound, Abdominal wall, 02.02.2009. Photo by JT
5d	Souad Abed Rabbo, left forearm, gun shot wound, 02.02.2009. Photo by JT
5e	Souad Abed Rabbo in a private house in Gaza, 02.02.2009. Photo by JT
6a	Palestinian Hospital Cairo. OAK 04.03.2009, 17:58 by AVM
6b	Palestinian Hospital Cairo. OAK 04.03.2009, 17:59 by AVM
7	Palestinian Hospital Cairo. HAK 04.03.2009, 17:59 by AVM
8	
9	Military Hospital Al Hilmiya, Egypt. Farah Mohammed Abu Halima. 03.03.2009, 18:36. Photo by AVM
10a	Ashraf AlKhatib, PRCS ambulance driver. 02.02.09, Photo by SVA
10b	Photo of map of area, 02.02.09, at PRCS office on date of interview by SVA
11	Marwan Hamouda, PRCS, photo on date of interview by SVA
12	Marwan Hamouda, PRCS, photo on date of interview by SVA
13a	Al-Awda Hospital Ambulance attacked. 30.01.2009, 18.04, with witness, by SVA
13b	Al-Awda Hospital Ambulance attacked. 30.01.2009, 18.04 by AVM
14a	Ahmad Abu Alful, PRCS, Photo on date of interview by SVA
14b	Ahmad Abu Alful, PRCS, Photo on date of interview by SVA
16a	Union of Health Care Committees mobile clinics attacked. 31.01.2009, 12.25. Photo by AVM
16b	Union of Health Care Committees mobile clinics attacked. 31.01.2009, 12.28. Photo by AVM
17a	Al-Wafa’ Home for the Elderly at Al-Wafa’ hospital. 29.01.2009, 17.01. Photo by JT

<sup>88</sup> Not in order of appearance but according to the numbering of the testimonies in the text. M=Microscopy. B=Burns. PH=Public Health. AW=Atypical Weapons.

17b	Al-Wafa' Hospital 29.01.2009. Photo by JT
17c	AL-Wafa' Hospital view from inside, 29.01.2009. Photo by SVA
18a	European Hospital Khan Yunis. Piece of the rocket fired at the hospital. 31.01.2009, 16.06. Photo by AVM
18b	European Hospital, Khan Yunis. Area where bomb fell and Damaged hospital generator. 31.10.2009. Photo by SVA
19	Jabalia. Moustafa Ahmed Aaber (PMRS) and KMD. 03.02.2009, 12.03. Photo by AVM
20a	Jabalia. KAS. 03.02.2009, 12.32 Photo by AVM
21	Shifa' hospital, Gaza. SM. Photo on date of interview by SVA
22	Palestinian Hospital Cairo. OAA. 04.03.2009, 16:58. Photo by AVM
23	Palestinian Hospital Cairo. MAG. 04.03.2009, 17:35. Photo by AVM
24	Military Hospital Al Hilmiya, Egypt. HTB. 06.03.2009, 21:24. Photo by AVM
25a	Abu Yussuf alNajjar hospital, Khan Yunis. Disc fragments. 2.2.2009. Photo by SVA.
25b	Abu Yussuf alNajjar hospital, Khan Yunis. Amputation by weapon. 2.2.2009. Photo by SVA.
25c	Abu Yussuf alNajjar hospital, Khan Yunis. Dual amputation by weapon. Photo during surgery, 2.2.2009, by SVA.
26	Beit Hamin village. AAH. Photo on date of interview by SVA.
M1	Slide 1. Subcutaneous tissue from a male burn victim. Necrosis and inflammation. Photo by JT
M2	Slide 1. Subcutaneous tissue from a male burn victim. Necrosis and inflammation. Photo by JT
M3	Slide 1. Subcutaneous tissue from a male burn victim. Necrosis and inflammation. Photo by JT
B	Shifa' hospital. Histology Team for tissue samples, 2.2.2009. Photo by JT
27	Shifa' hospital. IAA. Photo on date of interview by SVA
28	Shifa' hospital. SSJ. Photo on date of interview by SVA
29a	Zeitoun. Samouni Family. 31.01.2009, 13.31. Photo by AVM
29b	Men of the Samouni family during the interview with expert team. Photo on day of interview by SVA
30	Zeitoun. Islam Samouni. 31.01.2009, 14.40. Photo by AVM
31	
32	Military Hospital Al Hilmiya, Egypt. Mohammed Samouni. 06.03.2009, 19:58. Photo by AVM
33	Jabalia. Doa' Al Banna. 02.02.2009, 11.52. Photo by AVM
34a	Palestinian Hospital, Cairo. Iyad Al Banna. 04.03.2009, 14:09. Photo by AVM
34b	Palestinian Hospital, Cairo. Iyad Al Banna. 04.03.2009, 14:09. Photo by AVM
35a	Shifa' Hospital. Sabah Abu Halima. Date unknown. Photo by Dr. Nafez Abu Sha'ban, Head of Burns Department, Shifa' hospital.
35b	Shifa' Hospital. Sabah Abu Halima. 01.02.2009, 14.24. Photo by AVM.
36	
37	
38	Jabalia. AAM. 02.02.2009, 12.28. Photo by AVM.
39	
40	Palestinian Hospital, Cairo. MSB. X-ray. DOCTORS USE THIS X-RAY AS EVIDENCE OF ABNORMAL FRACTURES. Photo of x-ray 04.03.2009, 16:30 by AVM.
41	Military Hospital Al Hilmiya, Egypt. BHKM. 06.03.2009, 19:42. Photo by AVM

42a	Shifa' Hospital. MAH. Leg burns, 01.02.2009, 14.47. Photo by AVM
42b	Shifa' Hospital. MAH. Leg burns, 01.02.2009, 14.47. Photo by AVM
42c	Shifa' Hospital. MAH. 01.02.2009, 14.47. Photo by JT
42d	MAH. X-ray picture, chest, foreign bodies visible, probably shrapnel. Photo of x-ray 01.02.2009 by JT
42e	MAH. X-ray, head, lateral view, foreign bodies visible, probably shrapnel. Photo of x-ray 01.02.2009 by JT
43	Military Hospital Al Hilmiya, Egypt. MMI. 06.03.2009, 20:32. Photo by AVM
44	Military Hospital Al Hilmiya, Egypt. MARK. 06.03.2009, 21:06. Photo by AVM
PH1	Crater water pipe damaged. Photo by RS during site visit.
PH2	Hay es Salam, Jabalia Al Rayes, PMRS health post in tent. Photo by RS during site visit.
PH3	Hay es Salam, Jabalia Al Rayes, PMRS clinic half destroyed. Photo by RS during site visit.
PH4	PMRS Primary Health Care Clinics. 04.02.2009, 13.32. Photo by AVM
PH5	Gaza City Ministry of Justice. 31.01.2009, 12.42. Photo by AVM
AW1a	Shifa' Hospital White Phosphorus Demo 29.01.2009, 15.07. Photo by AVM
AW1b	White Phosphorus sample. Photo by SVA
AW2	Metal cubes ammunition, shown by Chris SG Cobb-Smith. Photo by SVA.
Team	Gaza city, Team picture

## Appendix 5 - Medical files and other materials

The contents of the medical files have been withheld for reasons of medical confidentiality. In case of need, a waiver of medical confidentiality must be signed by the patient. Please contact Mr. Ran Yaron at Physicians for Human Rights-Israel ([ranyaron@phr.org.il](mailto:ranyaron@phr.org.il)) in order to coordinate permission to view specific medical files.

- Written testimony by Muhammad Shurrab (Chapter 1.1 Case Study 1 above). Arabic. Retained by PHR-Israel.
- Written testimony by Muhammad Shurrab (Chapter 1.1 Case Study 1 above). Translation into English by PHR-Israel:

### **In the name of Allah, the merciful, the compassionate**

Friday, as we all know, is God's day for the Moslems. We began, my sons and I, Qassab, graduate of the faculty of engineering, department of construction engineering, at the Islamic university, and Ibrahim, first year at the faculty of accountancy, at "AlAzhar" university. It was a beautiful warm day. I awoke in the morning as usual, did the things that I needed to do, and then the boys awoke, and I asked them to do some chores for me. I decided that, with the help of Allah, we would set out for the city together, before the end of the humanitarian ceasefire/truce that the Israeli army declared while it was entering the AlFukhary neighborhood, which is on the border of my private farming land.

And so it was, after the Friday noon prayers, we took the things we needed for home and set out in the car, and after 200 meters, we passed a route that was blocked because of tanks and heavy mechanical equipment which had been used to surround the area the night before, and we managed despite the digging works to pass another 700 meters, and then we found a route that was being used by heavy mechanical equipment, it was a harder way than the one before, but because our car was a Land Rover Jeep I managed to go through it, and I said to my children, "I am going to cross this road-hump, which looks like a sand roadblock" and I continued and said "I am not driving a Subaru" and I called for the help of Allah.

All the way I took care to go according to the instructions, as they were written for me. From the AlUmur Mosque "AlReda" route we passed through the "Electricity" square ['Muhawal alQahraba']. I proceeded straight on, intending to pass through a side alley that I know well. I was surprised to discover an empty area, and when I looked to my left, I was surprised to see two soil roadblocks, with a tank in one of them. This was an unexpected surprise. I raised my hand as in greeting, no one stopped me. I continued driving for another 50 meters and then bursts of gunfire were shot at me.

I immediately told my sons "bend down". The shooting continued in our direction. I thought it was warning shots, until I was amazed to hear the voice of someone, shouting "get down, son of a bitch", I said to my sons, get down, bend down, get out of the car, and lie down on the ground. I bent down, and I could not see my son Qassab who had been sitting next to me and I did not know how he got down or how he behaved, but Ibrahim who was sitting behind, and was unhurt, opened the door of the car and got out, and then suddenly he started shouting "I'm hit". I looked at him and saw that he had been injured in the leg, below the knee. I said to him, "never mind, it is a light injury, not lethal".

The soldiers shouted at me "get out of the car" and shot at the car where it was standing, so that I could not get out of the car because of all the bullets that were being fired at me. Then I started to feel hot blood dripping from my left arm. I looked in my clothes to see where I had been hit and I saw that my left arm was injured, above the elbow, and then I leaped over the passenger seat and out of the car and lay down flat on the ground, all while the shooting was continuing.

At the same time, Ibrahim was screaming, "I'm hit, ambulance, I'm hit", and then I heard the soldier say to him "shut up or I will shoot you".

I asked Ibrahim to be quiet and to crawl toward the fence/wall, and then he answered me, "father, call an ambulance". I answered that I did not know the number, and he said it was 101. I said, can you call them, I'm hit in the arm. While he was trying to call, the soldier shouted at him, "don't talk, I'll shoot you, throw away the phone." Ibrahim threw away the phone and sat there bleeding.

I shouted, I called the soldiers, "I have an injured person here, I am also hurt, get us a paramedic, wound dressings, an ambulance". They answered, "shut up or call an ambulance". I called an ambulance and they answered me that they could not come, and that only the Red Cross could do it, by coordinating with the [Israeli] army commanders, who had refused to authorize their passage.

Time passes and my son is bleeding. Qassab lies on his stomach, I don't know if he is alive or dead. I tried to crawl toward him and then one of the soldiers told me not to move and fired a warning shot.

Ibrahim bled, and no ambulance or medic could be seen. The soldiers took over a house just 40 meters away from us, no more. I see them and they see me. I hear them and they hear me, and so I called to them, "the boy is bleeding, send a paramedic to do something," and at the same time I was phoning for an ambulance more than 20 times, until they told me there is not much they can do, and that they would pass on my issue to the media. Time passes, and sunset is near, and I and my two sons, bleeding, started to feel the cold of January. I felt that I was in a race against time. And my younger son is calling to me every 5 minutes, begging "father call 101", and I would call, because of his shouting and begging, to no avail, the evacuation authorities told me they were aware of the situation I was in, and asked me to keep my phone available, so that local press and radio could contact me, so I could explain the situation to them, and call for our rescue, so that perhaps everyone would hear and help.

It was already dark, and there was no one to help, only the sounds of the cellphone ringing all the time, whether from a local radio station, or a satellite station, or a human rights organization, and other organizations.

I gathered courage and crawled toward my eldest son, when I saw some cats wandering around him. One of the soldiers shouted at me, and said in Arabic "go back to your place or I shoot you". So I answered him, "you can shoot me if you want". I reached Qassab, who lay on his stomach, I looked for the place where he was injured, and then I discovered with certainty that he was dead. His body had become hard. I turned him on his back and covered his face with his coat. He was lying one meter away from the jeep, and I thought "Qassab is dead, Ibrahim remains" – or Abbas as we used to call him. I went back to Ibrahim, and then he asked me, "how is my brother Qassab, is he still alive?" I answered, "Qassab is dead [martyred], and we are next".

"Bless him father", that's what my younger son said to me. I answered "how can I not bless my martyred son, who was murdered by the enemies of God with no justification?" And then again he asked me to call 101, I said "I will call, and you talk to them, maybe they will take more account than". But he answered me that he could not talk. I phoned and phoned countless times, and each time they told me this was the last time, and I said to them "I beg for your help, you respect neither Man nor humanity". And they answered me weakly and helplessly, and swore... Believing or not believing, it was all the same to me. And here was my younger son, asking me "are you satisfied with me father," and again "are you satisfied with me father", and I repeated my answer over and over.

"I'm cold, you and I are wounded, we are close to our end", he said to me, and I answered "no, you were injured in the leg, below the knee, this is an injury that does not cause death", and then he asked me about my injury, and I answered that I was fine, See, I'm with you now.

I asked him often if he was cold, and he answered that he was, so I put my bloodstained jacket on him, I leaned against the wall, stretched my legs forward, and placed his head on my lap, so he would be close to me, and feel some warmth. But, while shivering, he said "father, you are more sensitive to cold than I, take me to the jeep, maybe I will feel warmer there. We sat in front of the car that had crashed into the concrete fence/wall, I said to him "stand on your good leg, and I will help you". The moment we moved from our place, one of the soldiers shouted "get away, I'll shoot you". I took no notice of him, and I shouted "Bring me a paramedic, a blanket, something to tie the place of the wound with, bring me some kind of help, you who call yourselves modern people." One answer was all I got: "call an ambulance". I felt that this answer could be considered permission to use my mobile phone, it was already dark, and colder, I suffered terribly from the cold, and the whole body of my son was shivering from the cold and the bleeding. I listened to sounds, hoping to hear a car, but there were only the sounds of tanks or bulldozers destroying people's homes and trees. I threw the bag of dirty washing to my son and told him to use it as a pillow, and I took out some of the clothes to cover his body and his leg. We were in the car. I sat in the back seat and he sat in front. I put his head on the headrest of the seat, and started to rub his back and his trembling body with my fingers. I asked him every five minutes "are you cold? Does it hurt?" and he would answer with only one sentence: "call the rescue teams or 101".

I was in a bad condition, and despite my own injury I did not worry about myself for a moment, although I could feel that I was bleeding, and that the blood had wet all my clothes, until it was dripping from the palm of my hand. Through all this, whether the blood was flowing or drying up, I was not afraid for myself. I was afraid only for my son. I kept stroking him and talking to him, and I didn't know the seriousness of his condition, all I knew was that an injury to the leg could not cause death.

Around 20:00, I received calls from local radio stations and from bodies claiming to be human rights organizations, and I asked them



all "save us, we are behind a base of tanks, before a group of snipers, who are able to help us, but they have not given us anything but killing and fear." I asked everyone I talked to on the phone, "help transfer the bleeding wounded person, because perhaps in an hour or less you will not be able to talk to me because I will not be alive."

My left arm began to tremble. I felt a numbness in my arm, in my hand and in my fingertips. I kept receiving calls, "I'm from the radio... I'm from a foundation... we can talk live now, you can call for help directly..." I was tired, I wanted, before our time was out, paramedics, nothing more.

It was already ten o'clock. Night and cold. The dead one was lying in the street, and the wounded and the bleeding one, and me and the persecuting Jew, who was ready with his weapon to finish living people at any moment, so if he wants to reach satisfaction through killing, I know it, and I shouted at them, "death at this moment is a great peace/rest". I called in a clear, sad and trembling voice, "IDF, if you were modern, or human, or grandchildren of Abraham, my son Ibrahim is dying, you murdered my son Qassab, and my life is in your hands. Either you do something, or you let me rest/die." I heard only one answer: "let the ambulance come and take you."

I was certain the end had come, my mobile phone with which I received or made calls, its battery was finished, and I had no way of calling others. Before this I had told the human rights organizations that were dealing with the issue after being told about it by the rescue teams, that between me and the biggest hospital in the Gaza Strip there were less than 1,000 meters, that is one kilometer, but the power of the soldiers and the power of Israel persisted in their intention of deliberate murder.

At midnight, AlJazeera called me, and asked me to talk. At that moment Ibrahim was breathing. When I finished the interview, I could not feel his breath. I thought he had fallen asleep. I called him and I asked him the same question, if he was cold, but he didn't answer. I put my hand on his forehead, it was warm. Then I moved my hand to his mouth, but I could not feel his breath. So I knew he was dead. Ibrahim was dead. Abbas was dead. My son. Both were gone. The first was lying in the street, the second was lying in the front seat of the car.

Many people called, radio stations, bodies, organizations, I said to them all: "I am not OK, both my sons were martyred. Our rights as human beings do not exist here. I am going to die of the cold, and I don't care if I die, because I am no better than my sons, who died in front of me. My pain is harder than death, I wish for a speedy death, so I can have some rest."

I shouted at the soldiers, who were coming out of the house they had taken over. There were about 30 soldiers, with full kits. They went away for about an hour and came back. Then I shouted, "why are you leaving me behind? Finish me off, let me rest, just one bullet, it will cost you no more than pressing the trigger. Do it, cowards". None of them paid attention to my words. They don't care what I say. They did what they did, the bodies of my two sons are in front of them, they understood they had fulfilled their aim, murdered my sons, the young ones, the homeland...[translation by PHR-Israel]