

Gaza Crisis:

**Impact on Reproductive Health, especially
Maternal and Newborn Health
and
Obstetric Care**

**Summary Report
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(1) Background

Given the current population size and birth rate in Gaza, it is expected that there are around 41,000 pregnant women at any point of time. Approximately 170 deliveries take place every day including around 30 deliveries by caesarian section. Within such a small geographic area and fairly intensive network of primary and secondary healthcare facilities, antenatal care coverage was almost universal with 99% in 2007, and 99.1% of deliveries occur within hospital under professional supervision.

Healthcare services in Gaza have been affected by eight years of conflict and two years of strict closure to the outside world pre-ceding the 23 days of military operations which were launched on 27 December 2008. As a consequence of this crisis, the capacity and integrity of the system were severely affected in terms of (i) physical infrastructure, (ii) supplies and (iii) maintenance of continuity between primary and secondary levels of care.

During the crisis, 23 Primary Health Care Centers (PHCs) were directly hit and infrastructure damage occurred in all of them albeit at different scales (See detailed revised report about damage, Annex 1). These centers will require significant rehabilitation work to reestablish capacity to fully function. Primary healthcare services were halted in most of the 56 PHC centers, especially those in proximity to the military operations. According to Ministry of Health (MOH) data, 10 primary healthcare centers were transformed into emergency stations. They suffered, however, from (i) lack of sufficient equipment, (ii) staff able to reach their work stations and (iii) trained staff on assistance for normal delivery and basic emergency obstetric care (BEOC).

Isolated communities in Northern Gaza (Beit Hanun, Beit Lahia), the middle zone (Qarara, Khuza'a) and the area surrounding Rafah (Bani Suhaila) could not access services and, in many cases, were subjected to direct military operations and displacement.

With around 100,000 people being displaced into 58 UNRWA shelters as well as being absorbed by families mostly consisting of women and children, it is expected that around 25,000 women of reproductive age were subjected to the physical and mental distress associated with the conflict, further aggravated by the inability to satisfy their basic human needs and care within such shelters. Pregnant women in these shelters were especially vulnerable to physical and mental distress. In one of the shelters, 8 women from one family had miscarriages following an attack at Khuza'a village.

(2) Methodology

This report is based on a combination of qualitative and quantitative data collection approaches during the period from 26 January to 6 February 2009:

- (1) Collection of monthly service records and rapid assessment of key maternal health of four major hospitals (Shifa, Al Aqsa, Naser, Rafah);
- (2) Secondary analysis of MOH Operations Room reports;
- (3) Qualitative feedback from key informants in UNRWA shelters, hospitals and communities in North Gaza, Rafah and Khan Younis governorates;

The assessment was designed to gauge the extent of damage to facilities, health service needs and whether services had to be suspended, changes in service demand, ability of the health facility to continue providing the service and whether the services were interrupted during the war.

To address the social dimension of the impact of the crisis, especially on women who could not access maternal health services, information was collected from Jabalia, Buriej, and Khan Younis. Analysis of quantitative data included calculating trends and projecting indicators whereas the qualitative analysis involved thematic categorization pertinent to access, quality of care and psychosocial impact.

The recommendations at the end of this report take into account above sources as well as the findings of an MOH/UNFPA supported health facilities damage assessment which had also been shared with the Ministry of Planning. The damage assessment report was revised and cross-checked by UNFPA's sub-office in Gaza on 6 February 2009.

Limitations to this assessment included, (i) the unavailability of certain baseline data, (ii) time constraints, (iii) pressure on assessed facilities to respond to multiple assessment requests, and, hence, high burden on health staff, and (iv) conflicting figures from health facilities due to weak health records systems.

(3) Findings

(3.1) Access to care:

Many cases of maternal deaths were reported while trying to access hospitals ([see Annex 2](#)). For lack of safe mobility and difficult access to MOH hospitals especially in the North Gaza area, alternatively, NGO hospitals were utilized for delivery services.

In areas with no such hospitals, people relied on available human resources, which in this case could be elderly women in the family or in the displacement shelter. In one of those shelters in the Khan Younis area, 8 women delivered babies under the supervision of older women. One infant died in this shelter for lack of access to a hospital for the required neonatal care and resuscitation response.

In areas with limited capacity to move around, people used loud speakers to request medical assistance for women in labour. In one case reported from Karameh area, the woman and her child died while waiting for such assistance.

(3.2) Quality of care:

Major maternities and maternity hospitals in Gaza were transformed into surgical departments and hospitals to cope with the huge number of casualties. Priority was given to the transportation and/ or treatment of injured over any other kind of service including obstetric care. Examples of Caesarean sections postponed or avoided in favor of treatment of injuries were reported from Shifa and Rafah hospitals.

In most of the large maternities, women were discharged after 30 minutes of labour to vacate beds for potential needs during the emergency. Given the extreme living conditions in terms of lack of food, shelter and fuel, this meant an increased risk for both the mother and the newborn.

Recurrent electricity interruptions with reduced capacity of generators affected survival of newborns in need for intensive care.

While data from key maternities did not demonstrate significant variation in utilization of maternity services in the pre, during and post-crisis period, it is important to note the following from the surveyed facilities:

- 1- There was a 40% increase in miscarriage cases admitted to maternities

- 2- 50% increase in neonatal death (data from Shifa hospital maternity).
- 3- Increased prevalence of obstetric complications as reflected by increased C/S proportion to reach 32% and 29% in December and January respectively. Data from Gaza prior to the crisis showed an average of C/S deliveries to be at 15%.
- 4- Qualitative and anecdotal data coming from communities inform about severe impact of the crisis on mothers and infants not being able to reach care. Some of these data is available in the special attachment of this report.
- 5- Premature deliveries – it was reported that 5,000 deliveries occurred in January compared to 4,000 deliveries being the monthly delivery average prior to crisis. The excess number is explained by the increase in premature deliveries caused by stress and shock.

(4) Response:

The overarching theme in responding to the need in the post-crisis period is preserving and supporting the integrity and continuity of health care services from community towards secondary care facilities.

Two continua of care need to be taken into consideration:

- 1- Women to child continuum: safe pregnancy, delivery and care for the mother and newborn
- 2- Community to hospital continuum: ensuring that basic capacity for care is available at all and each of the three levels (community, primary care and referral hospital).

Programmatic areas on intervention:

- 1- Rehabilitation of damaged infrastructure to preserve the critical life-saving functions.
- 2- Supply equipment and medical supplies including essential drugs
- 3- Capacity building of staff along the continuum in areas pertaining to basic and comprehensive emergency obstetric care and neonatal care
- 4- Establish or strengthen existing logistic monitoring system to assure availability at all levels of health facilities and at least 6-9 month stock of reproductive health commodities at central level.
- 5- Assist the MoH to renovate/establish adequate storage facilities for medical supplies
- 6- Review of existing essential drug list to ensure the inclusion of all essential RH commodities as a part of the National Drug List.

DRAFT

Table of Health facilities damages and needs						
	Clinic	Damages Due to War	Needs	Increase/Decrease of service Demand	Is the health facility still capable to function	Was some of services/staff were transferred / canceled
1.	Al Quds Hospital- Maternity Department	Major infrastructure destruction and demolition of some departments Damage to furniture and medical equipment such as: Ultra sounds Delivery beds CTG monitor Suction machines Ventilators Incubators	Reconstruction of the building Provision of medical equipment and furniture	Increase demand of service	Yes	No
2.	Al Shifa Hospital – Maternity Department	Broken windows(16) Damage to equipment such as Ultrasound and CTG monitor Deficiency in blankets(700) Deficiency in bed cover(500) Deficiency in pillows(60) Deficiency in beds' mattresses(50) 40% decrease in number of nurses shifts 20 % decrease in number of physician shifts	Rehabilitation of damages Provision of medical equipment	20% increase in service demand	Yes	Yes , Canceling all non urgent operations.
3.	Al Aqsa Hospital – Maternity Department	Broken Windows Destructed wall Damage to most of the chairs Damage to phone network Maintenance employee was killed during the war	Replace broken windows Reconstruction of wall Provision of waiting chairs (50) Provision of patient's accompany chairs (60) Provision of phones(30) Provision of a fridge for pharmacy	Increase of service demand	Yes	No
4.	Tal Al Sultan-El Hilal El Emarati-Maternity Department	Broken glasses of the external clinic entrance Destructed wall Damage of most of chairs	To replace broken glass Reconstruction of destructed wall Provision of waiting	Increase on service demand	Yes	No

		Damage of phone network Maintenance employee Moeen Qannan was killed in the war	chairs(50) Provision of chairs for people accompanying the patients(60) Provision of phones(30) Provision of a refrigerator for the pharmacy Provision of external nets for windows to protect from insects			
5.	Al Aqsa Maternity	-	-	Increase of service demand	With Difficulty	Yes , services where there is deficiency in equipments capacity
6.	Al Awda Hospital – Maternity Department	Broken windows(48) with different sizes Various damages of 26 doors (size 120* 220 cm) First Aid Officer Arafa Abdel Dayem was killed First Aid officer Alaa Sarhan was injured Driver Khaled Abu Seda was lightly injured Total destruction of an ambulance during operation. Another ambulance was severely damaged due to israeli bombardment A car that was parking in hospital park was targeted by two air misseles which lead to cracks in the drug stores.	Rehabilitation of Windows and doors Provision of two ambulances Reconstruction of the wall of drug store	Significant decrease in clients of the out patient clinics but there was increase in cases of deliveries and abortions	Yes	Routine work was canceled and emergency status was approved.
7.	North Gaza Clinics					
8.	Abu Shback Clinic	Broken Windows' Glasses (22 windows)	Reconstruction of Windows' Glasses (estimated cost about 1000 NIS/ 2600\$)	There was decrease on services demand due to continuous air strikes.	yes	No
9.	Beit Hanoun Martyrs Clinic	Broken Windows glasses and frames. Destroyed Water Networks Assistant Pharmacist(Tahseen Ahmed	Rehabilitation of the clinic(estimated cost 4000 \$)	There was decrease on service demand due to air strikes,	Yes	No

		was injured in his left Jaw		land invasion and destruction of adjacent building		
10	Al Atatra Martyrs Clinic	There is major damage to the building in terms of collapsed walls and columns. Destruction of most of medical equipment And furniture.	Reconstruction of the whole building and provision of medical equipment and furniture(estimated cost about 121,000\$)	Work at clinic completely stopped due to direct targeting and total destruction)	No	Yes, provision of all services was stopped
11	Bait Al Makdes Clinic	Broken windows glasses and frames, damage to the clinic doors, Destruction of water tanks and networks Clinic's guard (Imad Hamdouna) was seriously injured and referred for treatment outside Gaza.	Rehabilitation of damaged windows , doors , and water networks(estimated cost 6000 \$)	There was a slight decrease due to continuous war.	Yes	No
12	Old Beit Lahia Clinic	Damage to the building (an old building), risk of building collapse Medical equipments and furniture of the clinic are old and consumed	Reconstruction of the building and provision of medical equipment and furniture.(estimated cost of about 190,000 \$)	Decrease in service demand due to fear and continuous air strikes and land invasion	Yes	NO
13	Jabalia Clinic	Broken windows	Rehabilitation of windows (estimated cost of about 3,000\$)	No	Yes	No
14	Central Jabalia Martyrs Clinic	Broken windows	Rehabilitation of Windows (estimated cost about 6000 NIS/ 1,500 \$)	Increase of service demand due to internally displaced people from adjacent areas and working around the clock during war as emergency center.	Yes	No
15	Al Shaimaa(New Beit Lahia Martyrs Clinic)	Broken Windows	Rehabilitation of windows(estimated cost 1300 \$)	Decrease of service demand due to fear and inability to reach as it locates close to borders in addition to continuous war.	Yes	No
16	Izbet Beit Hanoun Clinic	Broken Windows	Rehabilitation of windows(estimated cost	Decrease of service demand due to	yes	No

			1300 \$)	inability to reach and continuous war.		
	Gaza Governorate					
17	Sabha Harazeen Clinic	Destruction of external fence(southern and eastern sides) Broken windows Destruction of main water network and water tanks on the roof Damage to the electricity network in the central lab. Damage and cracks in walls with presence of deep holes in the clinic due to air bombardment.	Rehabilitation that includes window, water and electricity networks and walls of the clinic (estimated cost of about 10000 \$)	Decrease service demand due inability to reach due to air strikes and targeting adjacent buildings.	Yes	No
18	Al Falah Clinic	Broken windows	Rehabilitation of windows (estimated cost about 500 \$)	No	Yes	No
19	Al Daraj Martyrs Clinic	Broken windows	Rehabilitation of windows (estimated cost about 500 \$)	Increased service demand due to demand from people from other areas who can't reach health services at their residence.	Yes	No
20	Al Sourani Clinic	Broken windows (20 windows) Cracks and damage to clinic walls Pharmacist Rawyeya Awad was killed as a result of bombardment of nearby police station (while she was entering the clinic) Health inspector Ayman Rimlawi was injured (in the abdomen and he had splenectomy)	Rehabilitation (estimated cost 15000\$)	The clinic was closed for a significant period of time after recommendation from security due to targeting adjacent buildings	Yes , Recently	Yes , due to destruction and inability of workers to reach the clinic.
21	Shaikh Radwan Martyrs Clinic	Broken windows Broken doors Damage to bathrooms Damage to drinking water processing station Cracks and holes in the walls	Rehabilitation (estimated cost 6000 \$)	Increase due to receiving clients from other areas and due to working around the clock.	Yes	No
22	Ata Habeeb Clinic	Damage to telephone network	Maintenance (estimated	No Change	Yes	No

			cost 1,000\$)			
23	Al Qubba Clinic	Broken Windows	Rehabilitation (estimated cost 1,000\$)	Decrease to inability to reach the clinic by clients and medical staff.	Yes	No
24	Al Moaqeen Clinic	Broken Windows	Rehabilitation (estimated cost 3,000 \$)	No Change	Yes	No
25	Hala Al Shawwa	Destruction of external wall of the pharmacy Destruction of Drug store and refrigerator Broken windows Broken doors Destruction of stairs room Cracks in walls and main doors Damage to water tanks and electricity networks Damage to furniture(cupboards and chairs)	Rehabilitation for windows and doors. Provision of drugs , medical equipment and furniture Reconstruction of walls and stairs room (estimated cost 30,000\$)	Clinic was closed during the war and work was resumed recently.	Clinic is partially working , it will be fully operated after completion of rehabilitation	Currently , clinic is partially working Clients who can't be served at the clinic are referred to the closest health facility
26	Al Horrnya Clinic	Broken windows Destruction of water and phone networks	Rehabilitation (estimated cost 5000\$)	No Change	Yes	No
27	Zaitoun Martyrs Clinic	Destruction of phone network Destruction of satellite network Dr. Ihab El Madhoun was killed during his work in provision of first aid to injured people. Nurse Hamdan Malaka was injured during at his way to work.	Maintenance of phone and satellite networks	No Change	Yes	No
28	Shate Martyrs Clinic	Broken windows Destruction of northern wall of the clinic Destruction of one room Destruction of the phone and electricity networks Destruction of the lab equipments	Reconstruction of destroyed room and wall. Maintenance of phone and electricity networks Provision of lab equipments.(estimated cost is about 18000\$)	No Chang	Yes	No
29	Middle Area Governorate					
30	Western Nuseirat	Broken window	Rehabilitation of	No Change	Yes	No

	Clinic	Damage of furniture	windows and replacement of damaged furniture(estimated cost is about 3,000\$)			
31	Al Khawalda Clinic(Al Sawarha)	All clinic's windows were broken	Rehabilitation of windows(estimated cost 8,000\$)	No Change	Yes	No
32	Nuseirat Martyrs' Clinic	Broken Window	Rehabilitation of windows (estimated cost about 1,000\$)	No Change	Yes	No
33	Al Zahraa Clinic	Broken windows Damage of water tanks Damage of water network Destructed clinic's wall	Reconstruction of clinic wall Maintenance of water network Rehabilitation of windows(estimated cost is about 7500 \$)	Work was stopped during the war and it was resumed after ceasefire.	yes	Services of preventive medicine due to inability to move as a result of continuous bombardment
34	Johr El Deik Clinic	Broken windows Destruction of walls and presence of holes in the walls	Rehabilitation of windows and reconstruction of walls(estimated cost of about 2500\$).	Work was stopped during the war and it was resumed after ceasefire	Yes	No
35	New Buriej Clinic	Broken Windows Cracks in the ceiling and serious damage to the walls of the clinic Lab equipment were damaged Damage in drugs store	Rehabilitation of windows , Reconstruction of walls and ceiling Provision of lab equipments and drugs(estimated cost is about 40,000\$)	Decrease in service demand due to fear and continuous war.	Yes	No
36	Khan Younis Governorate					
37	Khan Younis Martyrs Clinic	Broken windows 22 of clinic doors were broken Main doors of the clinic were destroyed	Rehabilitation of window and doors of the clinic.(estimated cost is about 15730 \$)	In early days of war, clinic services were moved to an adjacent place as immunization spot, later on work resumed.	Yes	Yes, all services except immunization (which was moved to another place) were stopped due to targeting adjacent places and inability of workers to join work.

38	Khuzaa Martryrs Clinic	Serious damage to the ceiling of the building resulting from an artillery shell	Rehabilitation and reconstruction(estimated cost is about 5000\$)	Decrease in service demand due to fear and inability to reach the clinic	yes	No
39	Rafah Governorate					
40	Central Rafah Martyrs Clinic	Broken windows (25 windows) Damage of doors	Rehabilitation of windows and doors.(estimated cost is about 4,000\$)	At early phase of war decrease in clients due to continuous air bombardment	Yes	Preventive services were stopped due to continuous bombardment and movement difficulties
41	Tal El Sultan Martyrs Clinic	Broken Windows (10 windows)	Rehabilitation of windows(estimated cost 3,000\$)	Decrease due to security situation and israeli bombardment	Yes	Preventive services, mother and child services were influenced due to continuous bombardment , absence of some workers and in ability to reach clinic.
42	El Shoukeh Clinic	Serious damage in main gate Broken windows Crack in the clinic's walls specially from eastern side Treasury box was lost in addition to stamps and a sum of two hundred NIS.	Rehabilitation of windows, doors Reconstruction of destructed walls (estimated cost 9,000\$)	Significant decrease then stopping work due to land invasion.	No, work stopped due to presence of Israeli forces in adjacent places near the airport.	Work was stopped due to land invasion
43	Al Shabboura Clinic	Broken Window	Rehabilitation of windows(estimated cost 7500\$)	Decrease in service due to bombardment.	yes	No

Summary of qualitative data (9 February 2009)						
	Source	Residence	Event	Denied Access	Low Quality of care	Psychosocial impact
1.	JWHC	Jabalia	Inability of woman to easily access hospital	√	√	√
2.	JWHC	Jabalia	Traumatizing experience of woman during labor for her eight baby			√
3.	JWHC	Jabalia	Woman with difficulties to access hospital, traumatizing experience	√		√
4.	JWHC	Jabalia	Woman, difficulties to access hospital: traumatized due to loss of three family members killed in the war	√	√	√
5.	JWHC	Jabalia	Woman, delivered in the street of Hala under shelling and war environment			√
6.	JWHC	Jabalia	Delivery of child during the war; baby only immunized after end of war	√	√	√
7.	JWHC	Jabalia	Woman, unable to breast-feed her baby (born before the war) due to fear.			√
8.	JWHC	Jabalia	Miscarriage due to state of extreme fear due to bombing of adjacent house			√
9.	JWHC	Jabalia	Woman, delivery under shelling and sounds of war; obstructed labor; baby only immunized after war ended			√
10.	JWHC	Jabalia	Woman, delivered her fifth child ten days after her husband got killed on the first day of the war			√
11.	JWHC	Jabalia	Woman, 18 years, pregnant, lost her husband during the war			√
12.	JWHC	Jabalia	Woman, delivered her baby three days prior to the start of the war, problems in breast-feeding due to fear, compensated by using baby formula			√
13.	JWHC	Jabalia	Woman, 21 years, miscarriage of two fetuses due to extreme fear.			√
14.	JWHC	Bedwen Village	Woman, 19 years, pre-term delivery in 28th week of pregnancy through assistance of a nurse visiting the area	√	√	√
15.	JWHC	Jabalia	Woman, 27 years, had to walk on foot to hospital where she had induced labor; traumatized with what she had seen; couldn't find cotton and antiseptic to disinfect umbilicus of her baby	√	√	√
16.	JWHC	Gaza, Saftawi area	Woman, delivered on last day of the war after extreme difficulty to reach hospital; caesarian section; experienced lack of care	√	√	√
17.	Jabalia	Atatra	Woman, on the way to hospital to deliver, got shot at and had to have both limbs amputated	√	√	√
18.	Jabalia	karameh	A pregnant woman and her three companions were targeted by a rocket and got killed.			
19.	Jabalia	Jabalia	Woman had difficulty to move outside and had to deliver at home	√	√	√
20.	Jabalia	Jabalia	Woman had difficulty to reach hospital and had to deliver at home	√	√	√
21.	Jabalia	Jabalia	Woman was fired at on the way to the hospital for delivery and sustained injuries to her legs	√	√	√
22.	Jabalia	Jabalia	Woman was shot at and fainted, when she reached the hospital she was delivered through C/S	√	√	√
23.	Jabalia	Gaza, Tal El Hawa	Woman was not able to reach hospital and had to walk a long distance to reach the Red Cross where she finally got transport to the hospital	√		√
24.	Jabalia	Jabalia	Woman could not reach hospital for long time; finally ambulance took her to Al Awda hospital but had to be transferred onward to Shifa hospital for delivery, since Al Awda prioritized war casualties.	√		√
25.	Jabalia	Jabalia	Woman, hit by a rocket and her lower limbs had to be amputated; delivered in the ambulance on the way to the hospital; transferred to be treated abroad.			√
26.	Jabalia	Jabalia	Woman, started labor at school (after evacuation) and was transferred to hospital by an ambulance			√
27.	Jabalia	Jabalia	Woman, delivered in the first week of the war; later, IDF		√	√

			forced her out from her house informing her that the house and the whole area would be bombarded.			
28.	CFTA	Buriej	Woman, 25 years old, displaced, reached hospital under very horrifying circumstances; she delivered her baby at the hospital but did not receive satisfactory health care; at the shelter, she could not meet most basic conditions in terms of hygiene and sanitation.	√	√	√
29.	CFTA	Buriej	Woman, 30 years, gave birth to her child in a crowded hospital where she didn't receive satisfactory health care and was discharged immediately after delivery in the middle of the night where she had to witnessing random bombardment on her way back.		√	√
30.	CFTA	Buriej	Woman, 25 years, delivered her baby through the assistance of a neighbor midwife; newborn baby suffered from hypoxia and died later due to lack of equipment to treat her deteriorating condition	√	√	√
31.	CFTA	Buriej	Woman, 35 years, pregnant in her third trimester and suffering from chronic asthma was denied access to primary health care to have physical examination and receive medication. This led to deterioration of her medical condition.	√	√	√
32.	CFTA	Johr El Deik	Woman, 30 years, injured on her way to hospital during bombing of a nearby house; difficulty to be transported to hospital; needed blood transfusion, but was not available; after delivery, she was immediately discharged.	√	√	√
33.	CFTA	Buriej	Woman, 25 years, delivered her baby before the war; lost her husband during the first day of the war while trying to get the baby's birth certificate. Moving to a shelter with broken windows, she had very difficult times trying to keep her baby warm due to recurrent electricity cuts		√	√
34.	CFTA	Johr El Deik	Woman, 34 years, had C/S delivery in her eighth month; baby was put in an incubator and mother was immediately discharged		√	√
35.	CFTA	Buriej	Woman, 23 years, lost three family members; delivered baby under very distressing situation which impacted on the family's care of her and her new-born		√	√
36.	CFTA	Buriej	Woman, 20 years, lost her uncle; difficult access to hospital with low quality of care	√	√	√
37.	CFTA	Buriej	Woman, 22 years, lost her husband's brother; difficulty to access hospital and had to deliver at home under the assistance of a nearby midwife.	√	√	√