Reconstruction efforts in Iraq failing health care

6 years after the invasion of Iraq, amid continuing violence, the country's health system, devoid of staff and facilities, is struggling to cope with the needs of the population. Paul Webster reports.

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On a sunny morning early last winter on the outskirts of the northern Iraqi city of Sulaimaniyah, paediatrician Nasik Abdul Wahid climbed out of a jeep with a pair of armed bodyguards and headed for work. At the sight of Wahid's white coat, a line-up of women and children quickly formed outside a clinic in an empty tent made of scrap lumber and plastic sheeting—one of about a hundred tents housing families displaced from their homes in Baghdad, Basra, and other war-ravaged cities in southern Iraq. "The children mostly complain of anaemia and dermatological problems", explained 30-year-old Wahid, who schedules visits here around her regular practice at the Sulaimaniyah's main maternity hospital. "The older people mostly complain of hypertension. But the most urgent health concern here is the lack of basic sanitation. There are no latrines."

Wahid began visiting the refugee camp—which is on vacant land beside a construction site—about a year ago. That is when a case of typhoid was reported, and the Kurdistan Health Foundation—a local non-governmental organisation—discovered that the refugees, most of whom are Sunni Arabs, are largely blocked from accessing Kurdistan's public health system. Venus Shamal Karim, a local human-rights activist who regularly visits the camp, describes this problem as part of "a pattern of neglect" on the part of Kurdish officials. "The local authorities are required to provide health services to the refugees under law", Wahid explained. "But the truth is people in this camp can only get medical services by paying. And it's too expensive. As a result, visiting doctors like me provide almost their only access to medical services."

In an area of Iraq that has long sought political independence, relations between Arabs and Kurds are tense, explains Karim. Kurdish officials are reluctant to encourage Arab refugees to remain in the north, where the deposed dictator Saddam Hussein once tried to forcibly settle Arabs and used chemical weapons to kill thousands of Kurds. The Iraqi Red Crescent has called

> **"...the most urgent health concern here is the lack of basic sanitation..."-**

on the Kurdish Regional Government to properly house the refugees in the region's four tent camps for more than a year, so far without result.

6 years after the US-led occupation of Iraq unleashed a civil war estimated by WHO to have killed at least 100 000 civilians, around 2 million Iraqi refugees have fled to Syria and Jordan, while another 2·8 million people have been displaced within Iraq. The United States Agency for International Development (USAID) estimates that Sulaimaniyah province houses almost half a million internally displaced people, the largest displaced population outside Baghdad.

As sectarian violence continues throughout Iraq—including in cities near Sulaimaniyah like Mosul and Kirkuk—the US Government has doubled spending on displaced people to about $120 per person per year. In 2008, the Government of Iraq offered grants of about $600 to families that return home. So far, fewer than 1% of displaced people have accepted that offer.

In the Sulaimaniyah camp, 36-year-old Ossam Khalin Shalan described his plight in stark terms. "We were forced from our home in Baghdad by the insurgent militias, and then the house was destroyed by government troops", he says over the cries of a baby struggling in his arms. "This child was born in a tent here in the camp and has no certificate of birth. My wife was afraid to go to the hospital to deliver it. But we will stay here if we can. Even if we have to beg in the streets."

The camp's unofficial mayor, Ayed Manfee, also fled Baghdad when fighting destroyed his home. After a year under plastic tarpaulins at the edge of Sulaimaniyah, he and his wife Lyla complain that the Iraqi Government has yet to transfer their

Kamaran Najm

Nasik Abdul Wahid examines a young Iraqi boy living in a refugee camp in Sulaimaniyah, northern Iraq

food ration cards from Baghdad—thus denying them access to the system of government food support established for poor people during the Saddam era. "When I went home to collect the food", says Lyla Manfee, "I was threatened with death". The Manfees are also unhappy with aid groups. "The Red Cross brings us water. But, for the most part the humanitarian groups come here, take a lot of photographs, make a lot of promises, and then we never hear from them again", says Ayed Manfee. He reserves his parting shot for the US Army. "We had an American general come here and promise us toilets. But nothing happened."

The vast bulk of refugees in Kurdistan fare better than those housed in tent camps, human-rights monitors caution. Most displaced families living in Sulaimaniyah are able to pay for apartments within the city, where access to health care is easier, explains Venus Karim. Only the most destitute are forced to live in camps. The Minister of Health for Kurdistan, Abdelrahman Yones—a physician who practised in the UK for 18 years before returning to Kurdistan in 2006—agrees that the camp dwellers face an inhuman predicament. The Kurdish Regional Government and the Government of Iraq insist on policies designed to encourage people to go home, he says. As a result, the poorest people among the displaced have been left to live in camps, rather than resettled in permanent housing.

Health indicators

After 6 years of civil war, preceded by a decade of international economic sanctions, Iraqi health officials say health-care conditions across the country are improving, but are still desperate. Mortality rates for children younger than 5 years (46 per 1000 livebirths) and maternal mortality rates (84 per 100 000 livebirths) are far higher than in neighbouring countries, and far higher than before the US-led invasion in 2003, when these indicators had already tripled after a decade of economic sanctions. One in eight deaths is violence-related. 38% of pregnant women are anaemic. Diarrhoea and acute respiratory infections, further compounded by malnutrition, account for about two-thirds of deaths in children younger than 5 years. The World Food Programme estimates that 22% of children under 5 years are stunted due to chronic malnutrition. At the peak of the most recent cholera period, in early 2008, 4697 confirmed cases were reported in 46 districts. Only one in three Iraqi children younger than 5 years has access to safe drinking water, UNICEF estimates, and 14% of children are born underweight.

In a panel discussion last summer, medical researchers from the Baghdad, Al-Nahrain and Al-Mustansiriyah Universities stressed that the war has had a devastating effect on public health care, especially for women and children, with many pregnant women unable to reach hospitals for delivery, routine immunisations severely reduced, medical supplies disrupted, electricity cut at hospitals, and primary care particularly badly affected. "Much of the disease burden is attributable to environmental risk factors such as improper management of hospital hazardous waste, unsafe water, poor hygiene, poor living conditions, and unsafe food", says the UN. "Violations against children are being committed on a large scale and include child recruitment, attacks on schools and hospitals, killing and maiming by indiscriminate attacks, and lack of humanitarian access due to insecure conditions."

A recent study of 210 Baghdad physicians by researchers from the Al Mustansiriyah University College of Medicine suggests physician competence is also a worry, with only 20% of physicians who have undertaken postgraduate studies aware of the principles of evidence-based medicine. "The state of medical knowledge among physicians, even those conducting research, is disastrous", says Aamir Jalal al Mosawi, editor of the *New Iraqi Medical Journal*, and head of paediatrics at University Hospital in Al Kadhimiyia, Baghdad. "When we receive a double-controlled study, I can almost be sure it is a fake." Al Mosawi credits the Iraqi Ministry of Health for establishing a research bureau, at a time when health budgets for 2009 are being revised downwards because of the global financial crisis. But for the present, he says, researchers can do little more than gather data and wait for help to design studies.

Beacon of hope

Compared with the rest of the country, the Kurdistan region represents a beacon of hope. With a booming economy driven by investment from foreign energy companies, the three Kurdish provinces (Dahuk, Erbil, and Sulaymaniyah) have total budgets of $2·5 billion—a figure that matches the budgets of the other 15 Iraqi provinces combined. Health-care spending is far higher than anywhere else in the country (see panel).

"Some [health] indicators show strong improvement", says the

Panel: Health financing

In Baghdad, the country's most populous province, 48% of the regional budget is devoted to security, whereas health care receives 1% of provincial funds.

In the oil-rich but violent city of Kirkuk, on the southern edge of Kurdistan, the Institute for War and Peace Reporting notes that families of patients in Kirkuk Hospital's neurosurgery unit are expected to purchase basic equipment required for operations, and that basic equipment such as surgical drills are worn beyond repair. As is the case in Baghdad, provincial officials in Kirkuk devote about 1% of their budget to health care, whereas 18% of the budget in Kirkuk is earmarked for oil and gas field rehabilitation.

Investment in oil and gas production is expected to boost export revenues that will help the government expand health-care budgets. At a health-care reform conference last June, officials and parliamentarians called for an increase in national budget allocations for health from 5·3% (or $43 per head) to 10%. Although the government resisted calls for budget increases, in early December, 2008, after concluding a poliomyelitis campaign which, with WHO and UNICEF support, vaccinated 97% of Iraq's 5 million children, the Ministry of Health announced plans to build six new hospitals and 1000 clinics.

regional health minister, Abdelrahman Younis. Infant mortality and mortality of children younger than 5 years have both been halved since 2006, he says. The Kurdistani Regional Government is now targeting primary care, he explains. Smoking is also a concern, due to extremely high rates of lung cancer and heart disease. "50% of men smoke", he says. "We want to change that part of the culture."

At the Sulaimaniyah Emergency Hospital, orthopaedic surgeon Affan Hamakhan Jafar says public health is improving, partly because health policies have become more coherent as violence and feuding between Kurdish political factions subsides. A WHO vaccination programme for children has taken root, he says, and infectious-disease control is good. "We've had cholera outbreaks in past years and we were waiting for one this year. But it didn't happen", says Jafar, who developed a specialisation in treating chemical burns and other war-related injuries during Saddam Hussein's attacks on the Kurds.

With funding from the provincial government, work in Sulaimaniyah has started on a 400-bed general hospital, and salaries for physicians have increased by about a third this year, Jafar notes. Although physicians have been targeted amidst sectarian violence in the south, forcing many to leave the country, this has not happened in Kurdistan, he says. "Peace has come. There is a lot of corruption and disorganisation as a legacy of the conflicts in this area, but relatively, if compared to the middle and south of Iraq, it is positive."

Although Kurdistan is a bright spot in Iraq, health minister Younis says conflict in the south severely reduces supplies of basic life-saving medical supplies. Under national law, he explains, medical supplies and drugs can only be procured through the federal government, which, in keeping with Kurdistan's proportion of the national population, earmarks 17% of supplies for the region. Drugs are distributed from a notoriously inefficient federal clearing house, says Younis, who estimates that due to conflict, corruption, and inefficiency, Kurdistan receives only about a third of its drug requisitions. Per head spending on health care in Kurdistan is about a tenth the figure in neighbouring Jordan, Younis complains. "The Kurds have many priorities", he says, "but right now health care is not one of them".

Nor have international donors, including Americans, who spent $50 billion for Iraqi reconstruction, brought substantial health-care resources to Kurdistan, Younis observes. US health-care assistance has been limited to the construction of about 20 public health centres and several hospital renovation projects, he says. The World Bank, which manages $500 million in donations from 16 countries and the European Commission, has allotted only $34 million to Iraqi health-care programmes, including an $8·7 million project to expand ambulance services in Kurdistan.

Violence against doctors

In southern Iraq, health-care delivery remains severely constrained by violence. Although the Iraq Ministry of Health estimates 200 physicians have been killed since the US-led invasion, the Iraqi Medical Association puts this figure at 2000 doctors. The Ministry and the Association estimate that nearly half of the country's 34 000 doctors have left the country.

In November, 2006, deputy health minister Ammar al-Saffar—a critic of US reconstruction efforts who called for greater investment in health reconstruction—was kidnapped from his Baghdad home by armed men. He has not reappeared. In February, 2008, there was an assassination attempt on the deputy dean of Baghdad University's School of Medicine. In March, Khalid Nasir al-Miyahi, the only neurosurgeon in Basra was kidnapped and murdered. In December, 2008, the dean of the University of Mosul's School of Medicine was wounded by gunmen.

Iraq's 18 provinces and surrounding countries

At the Iraqi Medical Association's 2008 annual conference, which was held in Syria, several participants from Iraq were prevented by the war from attending. Official efforts to attract physicians back to the country have so far yielded little result. The government's recent decision to allow physicians to carry weapons for self-protection has been criticised by many for further undermining confidence in physicians' safety.

A study produced by the Iraqi Association of University Lecturers notes that 235 Iraqi academics have been murdered since 2003 and a further 294 have been kidnapped or threatened. Medical professors have disproportionately borne the brunt of this violence, the study notes. At Baghdad University, for example, 11 medical professors have been murdered—the largest group among the 71 dead from 13 faculties. "Neither the occupation forces nor the Iraqi ones tried to stop or prevent any of the acts of violence against academics", said the Lecturers' Association.

Although much of the blame for the violence against physicians and medical facilities is placed on insurgents, government actions have also been implicated, most recently in Baghdad's densely populated Sadr

The printed journal includes an image merely for illustration

PA Photos

Ambulances damaged by US missiles, Sadr City, May, 2008

City district, where municipal officials estimate 925 people were killed and 2605 were wounded as US and Iraqi government military operations intensified in early 2008.

After government forces surged into the area in April, Sadr City General Hospital and some 12 ambulances were damaged by US missiles, the UN reported. According to Yassin Al-Rikabi, director of the Mohammed-Bakr Al Hakim Hospital in Sadr City, in early May 40 Iraqi soldiers raided the hospital and arrested 35 staff members on suspicion of having treated Mahdi Army fighters. The soldiers temporarily forced the closure of the hospital.

Five of 20 public health centres in Sadr City, which has a population of 2 million, closed temporarily during this period, the UN reported. "The military operation took its residents unprepared for basic needs and deprived them of access to basic services such as electricity, fuel and water supply and access to health care", UN observers wrote. "The situation was further aggravated by the imposition of a 48-hour curfew which prevented the movement of ambulances in and out of Sadr City and the transport of wounded civilians to hospitals."

In an interview granted on the basis of anonymity, an orthopaedics specialist at the 300-bed Al Iman Ali Hospital in Sadr City, says although fighting continues in the area, the number of conflict-related cases has now dropped from around 100 a day in May, to under five per day. "It is still very difficult to reach the hospital", the specialist said, "and we continue to have severe shortages of emergency drugs and ambulance services. Our ambulances are still being attacked". The lack of safety for doctors remains a critical worry, he said, and as a result, the hospital remains badly short-staffed. "We can't yet expect that the situation will improve."

Reconstructing health facilities

Although the US Government has devoted $50 billion to the reconstruction of Iraq since 2003, so far less than $1 billion has been devoted to health-care infrastructure—far less than has been spent on new vehicles for the Iraqi Army. Of the 243 US Government advisers working within Government of Iraq ministries, only ten work on health issues. From a $3·6 billion fund intended to allow US military commanders to "meet the needs of the communities in which they operate", expenditures on security increased 600% to $250 million this year, whereas health-care expenditures diminished by 36% to $14 million and water and sanitation spending declined by 73% to $44 million.

After the US-led invasion in 2003, the White House directed the Pentagon to establish a team of 30 experts led by Assistant Secretary of Defense for Health Affairs William Winkenwerder and Jim Haveman, a former Michigan health official, to work with the Iraq Ministry of Health on health-care reconstruction. In 2004, the team helped establish a new national health-care strategy, expand the health budget 30-fold to $1 billion, and rebuild the ministry's headquarters. It also pushed the government to expand primary care, rationalise drug distribution, include Kurdistan in a decentralised national system, and recruit doctors to return from exile abroad.

> **"The lack of safety for doctors remains a critical worry..."**

"One of the biggest problems we had once we had a billion dollar budget was to get people to spend money", Haveman later explained. That problem persists. Of the $192 million allotted for long-term projects within the Iraq Ministry of Health's 2008 budget, only a small fraction was spent, according to the US Department of Defense. For its part, the US passed much of its funding for the reconstruction of Iraqi clinics and hospitals to US engineering firms that were later severely criticised by US Government auditors for failing to honour contracts.

Audits of US Government contracts with the American engineering giant Parsons Delaware Inc to build 150 public health centres across Iraq found that most facilities were only partially completed, and only six were finished.

US auditors also criticised USAID for its management of construction of a 94-bed children's hospital in Basra. After Congress allotted $50 million for the project in 2003, USAID awarded the contract to the US-construction giant Bechtel. When Bechtel's bills spiralled to $170 million, USAID, which never appointed a project officer to oversee Bechtel's work on the hospital, did not notify Congress.

Even where US health-care projects were completed, success was not assured. In an assessment of a refurbished maternity and paediatric hospital in Kurdistan, where renovations were completed in May, 2006, US auditors found broken sewage and water systems. "US agencies often made many decisions about investments without ascertaining Iraqi needs or obtaining the views and buy-in of Iraqi officials", US Government auditors investigating US health-care projects in Iraq concluded.

In Baghdad, outgoing US ambassador Ryan Crocker says that after spending tens of billions to bolster Iraqi police and military, US reconstruction efforts will increasingly focus on health care and education. But he does not predict this will involve large investments: "It is not about building schools and hospitals anymore", he says. "I think relatively small inputs to help Iraqis on policy reforms can pay substantial dividends later. The whole focus has been, and is, shifting from major reconstruction into helping with governance, helping with capacity, helping with policy reform, and protecting investments."

Paul Webster