

# SICHUAN EARTHQUAKE ONE YEAR REPORT

May 2009



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children

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为儿童

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## TABLE OF CONTENTS

1	Foreword
3	Introduction
5	Maps
6	Key Principles
8	Health and Nutrition
16	Water and Sanitation
24	Psychosocial Support and Child Protection
34	Education
42	HIV/AIDS
48	Social Policy
52	Constraints and Lessons Learned
54	Financial Report
58	Accountability
60	A Note of Thanks

All photographs in this document were taken by Zhao Jia, with the following exceptions:

Adam Dean, pages 6 and 59;  
UNICEF China, pages 21, 45, 47, and 48;  
Hong Kong Committee for UNICEF, page 53.

## FOREWORD

Minutes after picking up seismological reports of a major tremor in the vicinity of Chengdu, UNICEF China and the global UNICEF Operations Centre in New York began to gather information on the situation of children. Those activities laid the foundation for what has since become a full-fledged emergency response to the 12 May 2008 Sichuan earthquake.

The huge scale of the devastation along a swath of territory running from central Sichuan to southern Gansu quickly prompted a major government mobilization. The Government of China worked around the clock to organize and undertake a massive rescue and relief operation to save lives and address the needs of earthquake survivors. The government's response was impressive in its speed, scope of mobilization, and resource inputs.

The scale of damage riveted attention as media reports and citizen blogs carried the story to a stunned world. It quickly became clear that the public response to this disaster would be on a scale quite different from previous major disasters in China. Immediately, a national wave of concern and support materialized, and it was not unusual to see cars and buses filled with food, water and volunteers making their way to Sichuan to offer whatever help they could. Scenes of young volunteers – taking leave from their schools and jobs – working day and night to provide services for earthquake victims were witnessed all over Sichuan.

The UNICEF China office was fortunately well-prepared to help in the emergency response. A number of staff were experienced in responding to the needs of children in emergencies, both in China and elsewhere. Additionally, the UNICEF China Representative was the Chairperson of the United Nations Disaster Management Team in China, which is tasked with organizing and coordinating the emergency programmes of UN agencies.

Under the coordination of the Ministry of Commerce, and in close cooperation with counterparts and teams of experts in government institutions and civil society organizations, the UNICEF response was swift and comprehensive. In days, operating under well-tested emergency response protocols, UNICEF was able to ramp up an extensive procurement and delivery system to target the most pressing needs of children. UNICEF staff immediately began to work on the procurement and delivery of emergency shipments of medicines, tents, quilts, sleeping bags, ambulances, water purification supplies and

more. The first major shipment of tents arrived in Chengdu on 19 May 2008. UNICEF's early response was supported by funds from Hong Kong, Canada, Japan, Korea and several other UNICEF Committees and governments, as well as local private sector partners and individual donors. The generosity of these donors made possible the delivery of more than US\$ 8 million dollars worth of emergency relief supplies in the first month.

UNICEF worked to ensure that the special needs of children in emergencies remained visible in the weeks after the earthquake, producing and disseminating images and stories about the rapidly evolving situation of children and families to the world. Hong Kong Committee for UNICEF Goodwill Ambassadors Louis Koo, Miriam Yeung and Charlie Young visited joint projects supported by UNICEF. Japan Committee for UNICEF Goodwill Ambassador Agnes Chan also travelled through Sichuan to visit earthquake-affected children, focusing on their psychosocial needs.

As regular shipments of emergency relief supplies started to reach Sichuan, Gansu and Shaanxi, UNICEF and government partners were beginning to discuss plans to support a long-term recovery and rebuilding operation. One of the first comprehensive and long-term emergency programmes to take shape through the joint efforts of the National Working Committee on Children and Women and UNICEF was the establishment of Child Friendly Spaces, community centres to address the deep psychological effects being felt by large numbers of children and parents. Today, the Child Friendly Spaces continue to serve as safe, secure facilities where children can play, interact, recuperate and communicate their feelings.

As this report documents, UNICEF targeted its support in the recovery process to complement and expand the massive government response to the needs of earthquake victims. In a number of cases, UNICEF is directing assistance to the

most remote communities in need. UNICEF has focused on providing supplies, supporting services and building capacity, working with government counterparts to fill gaps and provide complementary interventions. UNICEF's assistance has reached the most vulnerable children and women in Sichuan, Gansu and Shaanxi Provinces. Targeted interventions in 29 counties and districts (shown on page 4 of this report) are reaching a population of 10 million, including 2.5 million children (of which 700,000 are under-five) and 4 million women. As this report goes to press, UNICEF has utilized US\$ 20 million dollars (RMB 136 million) in support of children and women affected by the earthquake.

Accountability and good reporting on the use of emergency donor funds are among UNICEF's priorities. The reporting process was factored into the emergency response from the start. At the one month, three month, six month and now the one year anniversary of the quake, extensive reports were produced and made public. In addition, the UNICEF China website reported on all procurement of emergency supplies with regular updates.

Among the most vivid memories of this past year were the incredible courage and resilience shown by earthquake survivors, the generosity and civic-mindedness of the people of China, and the scale of the Government of China's response to this daunting challenge. On all levels the needs of the affected people stretched resources to the limit but the scope and quality of the response was impressive.

At the one year anniversary, joint emergency programmes for relief and recovery have seen remarkable progress. But there is still so much left to be done. In the months to come, the needs of children will remain the highest priority. UNICEF continues to rely entirely on the generosity of donors to meet these needs.

## INTRODUCTION

One year ago, on 12 May 2008, a massive earthquake measuring 8.0 on the Richter scale struck Sichuan Province's Wenchuan County. More than 120 million people in Sichuan and the adjoining provinces of Gansu, Shaanxi, Yunnan, and Chongqing were exposed to the moderate and severe shaking effects of the earthquake.

The Wenchuan earthquake left 88,000 people dead or missing and nearly 400,000 injured. The earthquake damaged or destroyed millions of homes, leaving five million people homeless. The earthquake also caused extensive damage to basic infrastructure, including schools, hospitals, roads, and water systems.

On 30 August 2008, a second earthquake measuring 6.1 on the Richter scale struck Sichuan and Yunnan Provinces, leaving dozens dead and hundreds injured. This earthquake struck near the same fault line as the Wenchuan earthquake, but was located further south, with its epicentre in southernmost Sichuan's Panzhihua City.

Both earthquakes hit children especially hard. The Wenchuan earthquake, which damaged more than 12,000 schools in Sichuan and 6,500 schools in Gansu, struck during the early afternoon when effectively every school-aged child was in a classroom. Meanwhile, the Panzhihua earthquake struck two days before the start of the school year, keeping students in the new earthquake zone from returning to school as planned.

One year after the Wenchuan earthquake, the response has shifted to recovery and reconstruction. Much work remains to be done, as survivors of the earthquake rebuild their lives and communities. Recovery and reconstruction programmes are anticipated to continue for an additional two years.

UNICEF Assistance in Sichuan Earthquake Zone								
	PREFECTURE	COUNTY/CITY/DISTRICT	H&N	W&S	Psy & CP	Edu	HIV/AIDS	Shelter
Sichuan	Aba	Jiuzhaigou County (JZG)						
	Aba	Lixian County (LX)						
	Aba	Maoxian County (MX)						
	Aba	Wenchuan County (WC)						
	Aba	Xiaojin County (XJ)						
	Chengdu	Chongzhou City (CZ)						
	Chengdu	Dayi County (DY)						
	Chengdu	Dujiangyan City (DJY)						
	Chengdu	Pengzhou County (PZ)						
	Deyang	Mianzhu City (MZ)						
	Deyang	Shifang City (SF)						
	Guangyuan	Chaotian District (CT)						
	Guangyuan	Lizhou District (LZ)						
	Guangyuan	Qingchuan County (QC)						
	Guangyuan	Yuanba District (YB)						
	Liangshan	Huili County (HL)						
	Mianyang	Anxian County (AX)						
	Mianyang	Beichuan County (BC)						
	Mianyang	Jiangyou City (JY)						
	Mianyang	Pingwu County (PW)						
Panzhihua	Panzhihua City District (PZH)							
Panzhihua	Yanbian County (YB)							
Ya'an	Lushan County (LS)							
Ya'an	Tianquan County (TQ)							
Gansu	Longnan	Wenxian County (WX)						
	Longnan	Wudu District (WD)						
	Longnan	Xihe County (XH)						
Shaanxi	Hanzhong	Lueyang County (LY)						
	Hanzhong	Nanzheng County (NZ)						

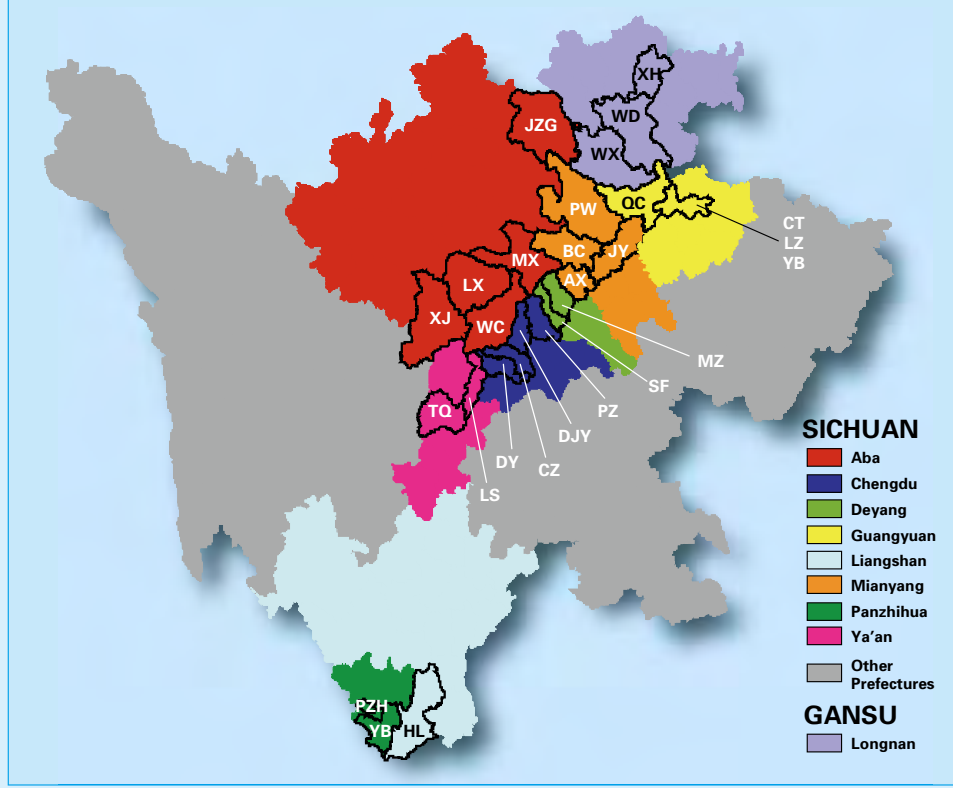
KEY. H&N: Health & Nutrition; W&S: Water & Sanitation; Psy & CP: Psychosocial Support & Child Protection; Edu: Education

# MAPS

Earthquake-Affected Provinces



Severely-Affected Regions in Sichuan and Gansu



## KEY PRINCIPLES

A few key principles guide UNICEF's earthquake relief and recovery efforts:

- **Recovery needs are massive and ongoing.** The emergency response has shifted from rescue to recovery and reconstruction, but urgent needs remain. UNICEF will continue to work with counterparts to protect the most vulnerable children.
- **UNICEF is working with the government to "Build Back Better" for children and women.** Specifically, UNICEF is helping to:
  - Build on and improve existing programmes for children
  - Identify areas hitherto lacking attention
  - Support the establishment of new public service delivery systems that reach the poorest
  - Provide technical assistance on the financing of basic social services

UNICEF's support to recovery efforts will continue up to 2011, in line with the government's three-year Restoration and Reconstruction Plan.



On 20 May 2008, a father and son in the town of Hanwang, Sichuan Province, transport belongings salvaged from their home, which was destroyed by the earthquake.



Toddlers crawl through hoops during a game at a Child Friendly Space in Feishui Town, Sichuan Province.

## HEALTH AND NUTRITION

### Overview

The earthquake struck areas that are predominantly poor, where the health and nutrition conditions of children and women were below national averages even before the emergency. UNICEF-supported surveys in 2006 found that in the poorest rural areas of Sichuan, Gansu, and Shaanxi Provinces, less than 60% of surveyed mothers received adequate antenatal care, nearly 50% of babies were delivered outside of a hospital setting, and less than 40% of infants were exclusively breastfed during the first six months of life. The survey also found that vaccination coverage in the earthquake-affected areas was far below national averages, with only 32 – 55% of surveyed children having received all necessary vaccines. A UNICEF-supported nutrition survey in Sichuan Province's Beichuan and Lixian Counties, completed in August 2008, found that the prevalence of anaemia among children aged 6 -24 months was 63%, nearly double the national average in rural areas. The survey also found that the prevalence of stunting among infants and young children was 13.9% and the prevalence of underweight was 9.1%. The survey underscored the vulnerable pre-existing nutritional status of the population and its probable deterioration after the earthquake.



A paediatrician weighs a 45-day-old infant at Qingchuan County Maternal and Child Care Centre, Sichuan Province.

In the emergency response, UNICEF has worked with the Ministry of Health and the Centre for Disease Control to promote access to essential and quality health and nutrition services for children and women, particularly in the poorest earthquake-affected counties.

### Re-establishing Maternal and Child Health Services

UNICEF's earthquake response has taken a two-pronged approach. First, UNICEF has provided assistance to children, women, and health providers in earthquake-affected communities. Second, UNICEF has worked with national and local authorities in the poorest earthquake-affected areas to help establish higher-quality services than those that existed before the earthquake, and to provide a model for similarly poor parts of China.

Within days after the earthquake, UNICEF delivered medical equipment and supplies to meet the routine and emergency health needs of some 1.4 million people in Sichuan, Gansu, and Shaanxi Provinces. These supplies went to temporary clinics set up to replace collapsed or damaged health facilities; and to health facilities where survivors were referred for care previously available locally. The health supplies, which included drugs, obstetric surgical kits, basic resuscitation kits, post-exposure and sterilization kits, and ambulances for transportation of children and pregnant women, drew on international core commitments for children in emergencies, and focused on the reestablishment of maternal and child health services. Additionally, UNICEF supplied nutrition commodities, including micronutrient supplements, vitamin A capsules, and prenatal vitamin and mineral supplements

for 125,550 children and 41,150 women. These supplies were delivered to combat the risk of acute under-nutrition among children and women in the earthquake zone. In addition to the delivery of supplies, UNICEF's assistance in the first few months of the emergency focused on developing and distributing 280,000 sets of communication materials and conducting health education activities in 100 settlement camps for displaced people.

In the medium-term response to the earthquake, UNICEF is providing hardware and software support to upgrade maternal and child health services in 10 counties in Sichuan, 2 counties in Gansu, and 2 counties in Shaanxi. This support has focused on establishing basic essential obstetric and newborn services at the township level and comprehensive services at the county and prefecture levels. This assistance is reaching nearly 4,000 villages and towns, covering a total population of 5 million, including 300,000 infants and young children under the age of five. UNICEF has also supported training for local health staff, monitoring on the nutrition status of infants and young children, and collection of data for a Management Information System. Working with counterparts, UNICEF has also continued to support community education and training, emphasizing key messages on maternal and child health, food safety, and hygienic behaviour. The UNICEF-supported activities around communication for behavioural impact are reaching an estimated 60,000 women before, during, and after pregnancy, as well as 261,000 children under the age of five.

## Building an Immunization Registration System

The earthquake caused extensive damage to clinics and hospitals, destroying parts of the cold chain system and resulting in the destruction or loss of paper immunization records. The earthquake also displaced 5 million people, many of whom are still living in temporary settlement camps. In this context, the tracking of child health status and vaccination history has become increasingly difficult. In the aftermath of the earthquake, UNICEF supported the introduction of an immunization registration system that involves use of computer technology, bar-coding of parent-held information records, and electronic storage of information. UNICEF is helping to set up the registration system, develop guidelines, and train staff on its use in 582 township clinics. This assistance will help to make information on young child immunization in 36 project counties accessible online, allowing public health authorities in Sichuan, Gansu, and Shaanxi to continuously monitor immunization coverage and plan vaccination campaigns.

Establishing an efficient immunization registration system will address the need for high quality data. The establishment of children's electronic records – private and secure but available online – will subsequently be expanded from the 36 current counties and be rolled out nationally, representing a major achievement for China and a model for other countries. The support to a broad roll-out of strengthened monitoring of immunization coverage will also provide a model for other programmes to improve maternal and child health status.

## Piloting Nutrition Interventions

In the months after the earthquake, UNICEF supported the monitoring and evaluation of a pilot micronutrient intervention in two counties in Sichuan. UNICEF found that after four months, there was a significant reduction in the prevalence of anaemia among the 4,000 infants aged 6 – 24 months who received the micronutrient supplements. The pilot micronutrient intervention demonstrated the benefit of supplements in addressing micronutrient deficiencies, facilitating and ultimately leading to the Government of China's approval of standards for micronutrient-fortified complementary food supplements, effective March 2009.

UNICEF is now working with counterparts to expand the pilot micronutrient intervention to 14 earthquake-affected counties, benefiting 25,000 infants and young children aged 6 – 24 months. The intervention aims to achieve 80% coverage of the supplements in the project areas and reduce



A mother holds her one-month-old baby girl as they wait to receive a health check at Anxian County Maternal and Child Care Centre, Sichuan Province.



A skilled nurse attends to a premature newborn in an incubator at Qingchuan County Maternal and Child Care Centre, Sichuan Province.

the prevalence of anaemia by 30%. UNICEF will assist counterparts in conducting community education and will also support monitoring and evaluation to document the impact of the micronutrient intervention. This documentation will provide evidence for the future use of such supplements in poor rural areas of China where micronutrient deficiency remains prevalent.

The earthquake led to discussion of nutrition security for the most vulnerable groups during emergency operations. In January 2009, UNICEF supported a nutrition emergency training workshop, the first ever in China, to share and discuss national and international experience. At the workshop, more than 80 nutrition specialists were trained on post-earthquake nutrition security. The China Centre for Disease Control is now drafting policy guidelines so that nutrition considerations will be a central element of future emergency operations in China.

The focus on nutrition in the aftermath of the earthquake has also presented an opportunity for UNICEF to further advocate for breastfeeding and best practices in infant and young child feeding. To date, health staff in 84 counties in Sichuan, Gansu, and Shaanxi have been trained on breastfeeding management. UNICEF's support complements renewed government attention to breastfeeding, both within the affected counties and also elsewhere in China.

## Moving Forward

Throughout the earthquake response, UNICEF has supported and contributed to the government's relief and rehabilitation efforts. While retrofitting existing health facilities and rebuilding new health facilities are clearly a critical part of the reconstruction process, this infrastructure

must be accompanied by improvements in the quality of health services. This is especially true in the earthquake zone, where services before the earthquake were generally below national standards and community knowledge of maternal and child health was limited. UNICEF will continue to reach out to women and households to improve knowledge on maternal and child health and nutrition. UNICEF is working with health staff in 14 counties to encourage and manage breastfeeding in emergency and non-emergency situations. In 2009, UNICEF is also preparing to procure cold chain equipment for use in measles campaigns in earthquake-affected counties and elsewhere in China.

In the coming years, UNICEF will continue to advocate for the integration of maternal and child health, nutrition, and immunization services. UNICEF will also work to improve health communication, support the health information reporting system, and build capacity among health workers. These activities are part of UNICEF's support to the Mother Baby Package, which has previously been piloted in predominantly poor and rural areas of China and is now being introduced to the earthquake zone. Designed to tackle the issues of access, service quality, and knowledge of maternal and child health, the package addresses the primary causes of mortality and morbidity among infants, young children, and women of reproductive age. 🌐



Liu Ju holds her baby in front of the UNICEF-provided ambulance where she gave birth ten days earlier. Her home is about 20 kilometres away from the hospital.

# REAL LIVES

## Extending the Reach of Health Services

Liu Ju will never forget 26 February 2009. She was in the final days of her pregnancy and at around 5 AM that morning she felt sharp pains in her abdomen.

"I waited for a while and there was no sign that it would pass anytime soon, so I realized that it might be time to deliver. My family called the local medical emergency number, and soon the ambulance arrived to pick me up."

While on her way to Anxian Maternal and Child Care Centre, Liu Ju gave birth to her girl. At the hospital, doctors did an examination of the new mother and her baby, and found both were healthy. The newborn girl weighed 3.8 kilograms.

## Providing ambulances

Liu Ju lives in Xiushui, a town in southwestern China's Sichuan Province that is only 180 kilometres away from Wenchuan County, the



A doctor weighs four-month-old boy Sun Minguo. Minguo was in critical condition at birth, but doctors saved his life with UNICEF-provided emergency neonatal care equipment. Now, he is a healthy baby.



Zhang Chengmei, 26, watches her premature baby resting in an incubator that UNICEF provided to Qingchuan Maternal and Child Care Centre. UNICEF has delivered life-saving medical equipment and supplies to 14 counties in the earthquake zone.

epicentre of last year's earthquake. Like most other buildings in her community, Liu Ju's house was destroyed. She and her family have been living in prefabricated rooms since then.

The ambulance in which Liu Ju gave birth to her daughter was donated to Anxian Maternal and Child Care Centre by UNICEF. The driver of the ambulance, Li Xu, has nothing but good to say of it.

"It is spacious and equipped with all the necessary facilities. It performs very well under most weather conditions," said Li.

Following last May's massive earthquake, the main building of Anxian Maternal and Child Care Centre was shut down for a few months and all hospitalized pregnant women were transferred to nearby cities like Mianyang, and Chengdu, the provincial capital of Sichuan. The UNICEF ambulance therefore met a crucial need.

In total, UNICEF provided 20 ambulances to the earthquake zone. In Qingchuan, another hard-hit



A doctor uses a UNICEF-provided fetal heartbeat detector to inspect eight-months-pregnant Zhang Yaping. Zhang is expecting a new baby, after losing her child in the earthquake.

county close to Anxian, an ambulance provided by UNICEF has also been playing an important role. Duan Shaoying, head of Qingchuan Maternal and Child Care Centre, said the hospital's own ambulance was smashed by falling debris during the earthquake. "When we got the ambulance in June, everyone was thrilled," she said.

According to Duan, all the major hospitals in Qingchuan were temporarily integrated after the earthquake to better mobilize and utilize all available resources. The ambulance was shared among all the hospitals in the county and was dispatched twice or three times every day.

In addition to the ambulances, UNICEF provided medicines, nutritional supplements, and medical equipment to the earthquake zone in the immediate aftermath of the emergency. The first shipment of 86 tons of supplies arrived by air on 30 May 2008, a little more than two weeks after the earthquake.

## "Her whole life lies ahead"

Seeing her daughter for the first time, 26-year-old Zhang Chengmei's face blossomed into a smile.

The premature baby had been born weighing just 2.4 kilograms, but now slept comfortably in a UNICEF-provided incubator. Zhang touched her baby's face, palms and feet, as a skilled nurse looked on. Within a few days, Zhang would be able to take the newborn home and name her.

Since many buildings in Qingchuan were destroyed in the earthquake, all governmental departments and public facilities had to move to a settlement camp of prefabricated structures built on farmland outside the county seat. Qingchuan Maternal and Child Care Centre occupies 27 prefabricated rooms, each of which is about 20 square metres.

According to Duan, since the earthquake, more than 170 women have given birth in the temporary wards. The medical equipment provided by UNICEF, including infant incubators, paediatric exam tables, obstetric delivery beds, urine analyzers, and weight scales, were crucial in guaranteeing the health of those women and their babies.

"Her whole life lies ahead. I hope she accomplishes more than us," Zhang Chengmei said when asked about her hope for the baby.