

Checklists save lives

A WHO initiative to encourage surgeons across the world to use checklists when they operate on patients was launched last month. Gary Humphreys reports.

“The woman had severe arthritis and she needed a new knee.” Dr Atul Gawande, writer, surgeon and Associate Professor at Harvard Medical School, tells the story in the matter-of-fact tone of someone who has seen way too many examples of the error he’s about to describe. “She was given an antibiotic and wheeled into the OR [operating room], where she was anaesthetized. The surgeon, for whom a knee replacement was a routine procedure, was about to make the first incision.”

But then he was told to stop. A mistake had been made. It wasn’t life-threatening, but it would have made it impossible to operate successfully and could have resulted in complications – the kind that, according to the World Alliance for Patient Safety (WAPS), a World Health Organization (WHO) initiative launched in 2004, result in around seven million people disabled every year.

“There are roughly 234 million interventions every year – one intervention for every 25 people on the planet,” says Dr Gerald Dziekan, who is WAPS safe surgery project manager in Geneva. “And while there is a clear correlation between economic standing and the number of interventions per capita (for example, in the United Kingdom the ratio is one operation for every eight people) globally speaking, there are no countries without a high rate of mistakes by operating teams.”

Whether it’s a matter of leaving a sponge inside a patient or failing to ensure sterility, more than 60% of patients worldwide have one of six key safety measures missed during surgery. In the words of Gawande, who leads the work to develop this initiative, “what almost happened to the lady with the bad knee could have happened in Amman or London.”

Mistakes occur partly because of developments in surgical procedure and the technology that supports it. “Medicine is becoming more complex,”

says Dr Cyrus Engineer, a member of the WAPS team. “You can have the best of technology, but if you fail to calibrate an instrument that is supposed to tell you the blood sugar level, you are going to get a wrong result which is going to send you down the wrong path.”

“Globally speaking, there are no countries without a high rate of mistakes by operating teams.”

Dr Gerald Dziekan

Engineer compares the situation faced by operating room teams with that confronting pilots civil and military aviation in the 1930s. “The answer was to introduce checklists,” he says, “to break down complex tasks to their component parts, and to ensure that

nothing was left out. It was a process that eventually brought about standardization within the cockpit.”

WAPS launched its Second Global Patient Safety Challenge, Safe Surgery Saves Lives, on 25 June in Washington and it does exactly the same thing – introducing checklists into the operating room in the hope that nothing gets forgotten. A simple one-page surgery checklist, developed in consultation with international experts in surgery, anaesthesiology, nursing and patient safety over a period of 18 months, divides surgical procedures into three phases. In the first phase, the period before anaesthesia, a designated checklist coordinator confirms basics such as the patient’s identity, the type of procedure planned, and whether or not consent has been given. In the second phase, the period after anaesthesia and before surgical incision, the coordinator reviews issues such as anticipated critical events – blood loss, for example – and makes sure basics such as prophylactic antibiotics have been given within an hour before surgery. In the third phase, which occurs during or immediately after



Surgeons operating on a patient in Mauritius.

Harry Anandem/WHO

wound closure, but before removing the patient from the operating room, the coordinator checks, among other things, that all instruments are accounted for and that pathological specimens have been properly labelled.

The one-page checklist is currently in its first edition, and is being field-tested in eight hospitals in developed and developing countries spread over the six WHO regions, before being disseminated as a part of a set of WHO guidelines. The safe surgery team has also invited input from operating-room professionals through its web page. Information gathered in this way will be used to produce a final surgical safety checklist, which Gawande believes will be ready for wide dissemination to professional organizations by the end of the year.

To those operating-room teams who have expressed doubts about having to shoulder more paperwork, Dziekan says that the checklist doesn't add any additional workload, and it only takes about three minutes to go through. Other worries might be harder to dispel however. Some practitioners have been resistant to anything that, for want of a better term, might cramp their style. As Dr Albert Wu, a senior WAPS team member and a professor at the Johns Hopkins Bloomberg School of Public Health puts it: "Some surgeons believe that a checklist dumbs things down and actually worsens the practice of a really expert practitioner."

“They had failed to make sure that a replacement was available in her size, but, thanks to the checklist, they realized the problem before opening her up ... That surgeon was converted.”

Dr Atul Gawande

Realizing that it is precisely those practitioners who need to be won over, Gawande and the WAPS team have

World Health Organization SURGICAL SAFETY CHECKLIST (FIRST EDITION)

BEFORE INDUCTION OF ANAESTHESIA → BEFORE SKIN INCISION → BEFORE PATIENT LEAVES OPERATING ROOM

SIGN IN

- PATIENT HAS CONFIRMED
 - IDENTITY
 - SITE
 - PROCEDURE
 - CONSENT
- SITE MARKED / NOT APPLICABLE
- ANAESTHESIA SAFETY CHECK COMPLETED
- PULSE OXIMETER ON PATIENT AND FUNCTIONING
- DOES PATIENT HAVE A:
 - KNOWN ALLERGY?
 - NO
 - YES
 - DIFFICULT AIRWAY / ASPIRATION RISK?
 - NO
 - YES, AND EQUIPMENT / ASSISTANCE AVAILABLE
 - RISK OF >500ML BLOOD LOSS (7ML/KG IN CHILDREN)?
 - NO
 - YES, AND ADEQUATE INTRAVENOUS ACCESS AND FLUIDS PLANNED

TIME OUT

- CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE
- SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM
 - PATIENT
 - SITE
 - PROCEDURE
- ANTICIPATED CRITICAL EVENTS
 - SURGEON REVIEWS: WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?
 - ANAESTHESIA TEAM REVIEWS: ARE THERE ANY PATIENT-SPECIFIC CONCERNS?
 - NURSING TEAM REVIEWS: HAS STERILITY (INCLUDING INDICATOR RESULTS) BEEN CONFIRMED? ARE THERE EQUIPMENT ISSUES OR ANY CONCERNS?
- HAS ANTIBIOTIC PROPHYLAXIS BEEN GIVEN WITHIN THE LAST 60 MINUTES?
 - YES
 - NOT APPLICABLE
- IS ESSENTIAL IMAGING DISPLAYED?
 - YES
 - NOT APPLICABLE

SIGN OUT

- NURSE VERBALLY CONFIRMS WITH THE TEAM:
 - THE NAME OF THE PROCEDURE RECORDED
 - THAT INSTRUMENT, SPONGE AND NEEDLE COUNTS ARE CORRECT (OR NOT APPLICABLE)
 - HOW THE SPECIMEN IS LABELLED (INCLUDING PATIENT NAME)
 - WHETHER THERE ARE ANY EQUIPMENT PROBLEMS TO BE ADDRESSED
- SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY AND MANAGEMENT OF THIS PATIENT

THIS CHECKLIST IS NOT INTENDED TO BE COMPREHENSIVE. ADDITIONS AND MODIFICATIONS TO FIT LOCAL PRACTICE ARE ENCOURAGED.

First edition of WHO's surgical safety check list (available at: http://www.who.int/patientsafety/challenge/safe_surgery/comptest_form/en/index.html).

been focusing on demonstrating its value in settings worldwide and on seeking the endorsement of professional organizations in the hope that this will bring broader acceptance among practitioners. So far, one of the most ringing endorsements has come from the United Kingdom's (UK) National Patient Safety Agency, the Royal Medical Colleges and other professional medical associations in that country. "The UK is the first country to have embraced this concept so broadly," says Gawande, "and by doing so, has established itself as a worldwide leader in the perfection of surgical care."

Other countries with a broad base of professional societies and hospitals to get behind the checklist (including Jordan, Thailand and the USA) while hospitals in China and in countries in Latin America, according to Gawande have already begun using versions of the WHO checklist that they have translated themselves to improve surgery outcomes. Since WHO began seeking endorsements back in February this year, over a hundred societies worldwide in 30 of WHO's 193 Member States have climbed aboard, a result Pauline Philip, the Executive Secretary of WHO's Patient Safety Programme which runs WAPS, considers "a huge success". Meanwhile, Gawande is talking about a potential 250 hospitals using the checklist by the end of this year, and 2500 of them using it by the end of 2009.

Such optimism derives from the stunning results that have already been achieved, most notably in a study conducted by Dr Peter Pronovost – one of the most enthusiastic advocates of the checklist approach – at Johns Hopkins hospital in Baltimore, USA. Pronovost, a critical-care specialist, found that the introduction of a simple five-step checklist reduced the rate of blood-stream infections caused by intravenous lines by two-thirds, while, on average, intensive care units cut their infection rates from nearly 3% of patients treated to zero. During the 18 months of the programme, an estimated 1500 lives were saved in the US state of Michigan alone.

Checklists worked for Michigan and they worked for the lady with the bad knee. Gawande was told the story by the surgeon who had been about to open the lady up, a surgeon who had been opposed to the checklist initiative before that day in the operating room. And what was the problem the checklist procedure revealed? "The hospital was out of artificial knees," Gawande says. "They had failed to make sure that a replacement was available in her size, but, thanks to the checklist, they realized the problem before opening her up. The operation was delayed until the knee prosthetic could be obtained on the same day and the operation continued. That surgeon was converted." WHO hopes there will be millions more like him. ■

G8 urged to act on food crisis and health

This month the Group of Eight (G8) industrialized nations discuss the growing global food crisis with its dire consequences and will be encouraged to fulfil past commitments, keep health on the international agenda and strengthen health systems. Fiona Fleck reports.

The global food crisis threatens to reverse hard-won gains in public health in developing countries and is already jeopardizing the health of the most vulnerable people in poor countries, particularly pregnant women, children and the elderly.

“A great deal of hard-won progress is at stake,” said WHO Director-General Margaret Chan in a speech to the United Nations food summit in Rome last month. “The world already faces an estimated 3.5 million deaths from malnutrition each year. Many more will die as a result of this crisis.”

G8 leaders gather on the Japanese island of Hokkaido from 7 to 9 July. This year's host, Prime Minister Yasuo Fukuda, who showed Japan's commitment to addressing the food crisis by attending last month's UN food summit in Rome, has put food security high on the G8 agenda. He and his fellow G8 leaders are also scheduled to discuss other health-related issues, including proposals to strengthen health systems.

Strengthening health systems is a top priority for the World Health Organization (WHO) and the rest of the “H8” health organizations – the Bill & Melinda Gates Foundation; the GAVI Alliance; the Global Fund to Fight AIDS, TB and Malaria; the Joint

United Nations Programme on HIV/AIDS (UNAIDS); the United Nations Population Fund (UNFPA); the United Nations Children's Fund (UNICEF); and the World Bank. In a formal letter sent to the G8 governments on 10 June, the H8 called on the G8 to fulfil past health commitments, keep health on the international agenda and help to strengthen health systems in developing countries.

“The 2008 G8 summit presents an opportunity to protect recent gains, and address areas which lag behind, such as the failure to reduce the number of maternal deaths, improve nutrition and intensify HIV prevention,” the letter said.

Health organizations recalled that the last G8 meeting in Japan, in 2000, had helped to establish the Global Fund to Fight AIDS, TB and Malaria and spurred “real and measurable progress” in health, such as “reductions in child deaths, increased access to treatment for HIV, the reversal of the TB epidemic in many countries, progress towards polio eradication, the profound reduction in measles in Africa, success in controlling neglected tropical diseases, and increasing contraceptive use”.

“Much remains to be done. In Hokkaido, it will be important for the

G8 to build on what it has started,” it said referring to Gleneagles and other commitments, “and support the dramatic scale-up of high-impact interventions to reach the health MDGs by 2015 – a crucial step in the global effort to increase human security. Leaders should commit to new, long-term predictable financing, that is linked to results,” the letter said.

For world leaders, the global food crisis presents a new health challenge. Soaring prices of basic foodstuffs, such as rice, maize and wheat, in the last couple of years has had a profound effect on people's health and well-being, and there are signs it will exacerbate undernutrition (under-eating) and malnutrition (bad eating) worldwide. In coming months, poorer populations may be forced to switch to cheaper, less nutritional food. Meanwhile, people in countries that are dependent on food imports, particularly in urban areas, are likely to eat fewer meals. Children may drop out of school earlier to work to earn more to buy food for their families, missing nutritious school dinners.

Combating the food crisis effectively will require substantial pledges from the international community. According to United Nations estimates, governments and other donors would need to spend more than US\$ 15 to US\$ 20 billion every year for several years to ensure adequate food supplies for people across the globe. To feed their populations the United Nations says countries would have to increase food production by 50% by 2030. Otherwise they would be unable to satisfy growing demand.

The United Nations has had difficulty finding funds for its food programmes. The World Food Programme (WFP) had to lobby the international community for several months to raise an additional US\$ 755 million to send food aid to countries in greatest need. In the end, a substantial transfer from Saudi Arabia closed the gap. Its sister organization, the Food and Agriculture Organization is still trying to raise the US\$ 1.7 billion it wants to procure seeds and agricultural assistance to increase food production in poor countries.

WHO officials believe the food price crisis could set back progress in reducing poverty by seven years.



Claire Schofield/WHO

Malnourished child in South Africa.

WHO/P. Viot



Rice, a staple in many countries, is becoming increasingly expensive.

“WHO can, and must, prevent further loss of progress by strengthening health and nutrition responses. This will require a concerted effort to channel national and international efforts, strengthen social safety nets, and monitor the health status of vulnerable populations,” said Dr Eric Laroche, who chairs the WHO Task Force responding to the Food Price crisis.

WHO has identified 21 countries that are already facing high levels of acute and chronic undernutrition: Bangladesh, Burkina Faso, the Central African Republic, Chad, the Comoros, Democratic Republic of the Congo, Eritrea, Ethiopia, India, Lao People’s Democratic Republic, Madagascar, Mali, Myanmar, Nepal, the Niger, Nigeria, Pakistan, Somalia, the Sudan, Timor-Leste and Yemen.

“WHO will help countries assess the health and nutrition effect of the global food crisis, as well as to design and implement measures to alleviate its impact among the most vulnerable populations.”

Dr Daniel López-Acuña

WHO is contributing to the work of the High-Level Task Force on the Global Food Crisis led by UN Secretary-General Ban Ki Moon. The Task Force comprising UN agencies and the World Bank aims to promote a unified response to the current food



WHO/P. Viot

Child in China eating rice. The price of rice rose by 46% in 2006 and 2007, according to the Food and Agriculture Organization of the United Nations.

crisis as well as long-term food security challenges. WHO is also helping to monitor the impact of the food crisis on nutrition, health and poverty as well as its effect on the health- and nutrition-related Millennium Development Goals. This work will provide government policy-makers with a sound evidence base, so that they will know how to target the populations that are most in need.

Dr Daniel López-Acuña, Director Recovery and Transition Programmes,

said that WHO will help countries assess the health and nutrition effect of the global food crisis, as well as to design and implement measures to alleviate its impact among the most vulnerable populations.

“It is critical to underscore the human face of the global food crisis, because there is an impact on the levels of nutrition and health to the population, and also it may delay the attainment of the health-related Millennium Development Goals”, López-Acuña said. ■



WHO/P. Viot

Prices of staples at a food market in India. In 2006–2007, the price of vegetable oils increased on average by more than 97%, that of grains by 87%, dairy products by 58% and rice by 46%, according to the Food and Agriculture Organization of the United Nations (source: http://www.fao.org/fileadmin/user_upload/foodclimate/HLCdocs/HLC08-inf-1-E.pdf).

Primary health care the New Zealand way

In the Wairarapa region, in the south-eastern corner of New Zealand's North Island, health officials have struck upon a novel yet effective way to treat often wary members of the local Maori population. Holly Else reports.

Many Maori perceive hospitals and general-practice surgeries as unfriendly environments and can be reluctant to seek health care at these institutions. To combat this, one of the primary health care facilities, the Te Rangimaire clinic, is located on the *marae*, or sacred meeting place, so that Maori feel more at ease. The clinic has two general practitioners, who are well trusted in the Maori community.

The Reverend Marie Collin, a member of the Ngati Kahungunu tribe, one of the largest Maori tribes in the Wairarapa region, speaks glowingly of the clinic at Te Rangimaire *marae*. She said that the service had become so popular that it was necessary to extend the hours and relocate the clinic from an old homestead on the *marae* to larger rooms in a new building housing the *marae's* communal dining room.

"Although the doctor, Cath Becker, is of European ancestry she is culturally sensitive, understands Maori protocol and is well respected by the community. Our *kaumatua* (Maori elders) are very comfortable coming here," says Collin. "The doctor knows how to handle our people and what we do differently."

As an example she cites a relaxed attitude to appointments. "If our people are running late it is no big deal. It's not an issue. People just arrive and take their turn."

Clinics such as the one at Te Rangimaire are the result of a cultural shift in the way health services are delivered to Maori.

Helen Kjestrup, a member of the Primary Health Care Nursing Advisory Committee for the Wairarapa region, is helping develop relations between Maori and the Primary Health Organisation. "It has been slow, but it is happening," she says.

To do this, she attends *hui*, Maori community meetings. Kjestrup believes that establishing health-care clinics in places where the Maori people feel comfortable has improved their access to health care.

New Zealand's primary health care system has undergone dramatic changes since 2000 – changes that government officials say have already improved access to its services for Maori and other groups.

The Wairarapa region, a sparsely populated agricultural valley between the Tararua mountains on the west and the Pacific Ocean on the east, can claim to have successfully implemented many of these changes.

The valley's population is a mix of European, Maori and Pacific Islanders, whose health-care needs vary enormously. The Wairarapa Primary Health Organisation is addressing these demands by working with the different communities to address the disparities in health between the different groups.

"Primary Health Organisations are enormously different beasts," says Joy Cooper, general manager of the Wairarapa District Health Board. "There is a huge variety of styles and sizes."

In Masterton, one of the main towns in the valley, there is a community centre for Pacific Islanders, Cameron Community House, which local general practitioner Dr David Nixon visits for one hour a week. A primary care nurse also visits the centre for four hours a week.

Cameron Community House and Te Rangimaire are just two of the many primary health care services and facilities in the Wairarapa region; others include general-practice surgeries and hospital-based services such as community nursing. Most primary care providers are coordinated by the Wairarapa Primary Health Organisation, which is overseen by the district health board.

The Primary Health Organisations are the local structures for implementing New Zealand's Primary Health Care Strategy that was launched in 2001. The core of the strategy is to reduce health inequalities, engage communities and improve the prevention and management of chronic illnesses.

The strategy was based on the Declaration of Alma-Ata, says Dr Tim Kenealy, a senior lecturer at the Department of General Practice and Primary Care at the University of Auckland.

A series of policy and legislative reforms, which included the primary care strategy, was formulated after a change in national government in 1999. The strategy was developed after it was decided a re-emphasis on primary care could reduce the disease burden and rising costs of secondary care.

In 2002, soon after the launch of the strategy, Primary Health Organisations were established across New Zealand, each responsible for the primary health care in a region or for a group of people, sometimes with a focus on a particular ethnic group.



Dr Cath Becker examines a patient at the Te Rangimaire clinic.

Courtesy of the Wairarapa District Health Board

Today, there are 82 Primary Health Organisations across New Zealand, with an average 94% of the country's population enrolled in one of them. Enrolment rates for Pacific Islanders are well above the average for the total population, but Maori have a lower rate of enrolment, at around 83%.

The Primary Health Organisation helps to coordinate and support the primary health care providers for its enrolled population, bringing together doctors, nurses, Maori health workers, health promotion workers, dieticians, pharmacists, physiotherapists, psychologists and midwives.

"They do not all follow the same blueprint," says Kenealy. Innovation is encouraged, enabling some organizations to customize their services to patients.

This customization is crucial to the success of the Wairarapa Primary Health Organisation, launched in 2004 after two-and-a-half years of preparation. Its arrival has transformed relations between the seven general practices in Masterton, improving communications and fostering cooperation. Previously, the practices had been run as independent businesses. Today, although still run independently, they share information and systems.

An in-house software system enables surgeries to identify high-risk patients; those, for example, who smoke, are overweight or have high blood pressure. The information is used by a team of nurses, who then phone the often reluctant patients to recommend they come in for a check-up.



Medical examination of a man from the Nga Puhi tribe in 1968.

Pierre Almasy/WHO

The Primary Health Organisation has a strong focus on keeping people well and in the community. Cooper uses a metaphor to explain their approach: "We have become much more focused on preventing people from falling off the cliff of poor health by building a fence at the top, rather than providing an ambulance to help people once they have fallen into ill health."

She says that the general practices within the Primary Health Organisation now also concentrate on population health, rather than individual patients. The addition of performance indicators, which measure how each district health board and Primary Health Organisation is performing (immunization rates for example), has helped the health service providers in the Wairarapa region look up from their daily grind to the bigger picture.

“We have become much more focused on preventing people from falling off the cliff of poor health by building a fence at the top, rather than providing an ambulance to help people once they have fallen into ill health.”

Joy Cooper

Getting the primary health care providers to work together like this "has not been easy", says Nixon. The process has been "evolutionary".

Prior to the new strategy, the quality of New Zealand's health services was high, but they were disjointed and "poorly integrated", says Kenealy. There was no integration, for instance, of the multitude of health services a particular patient might need. The first key component of the strategy, the creation of the Primary Health Organisation, aimed to combat this.



Pierre Almasy/WHO

Cardiographic examination of a Maori woman at the Wellington Hospital in 1968.

Furthermore, the system only worked well if you could afford to access primary health care services, a factor that was driving health inequalities. The government hopes that the second key component of the primary care strategy, an approach known as capitation funding, can help to remove this financial barrier.

The government has invested significant new funding in Primary Health Organisations in the form of capitation funding to reduce the cost of accessing general practice services and strengthen primary health care. Under this scheme, the district health board provides funding for each Primary Health Organisation based on the number of people enrolled and not on the number of times the Primary Health Organisation provider sees patients. Similarly, District Health Boards are funded by the government for their resident population "We get a bucket of money based on our demographics," says Cooper.

This system is "intended to provide an incentive to manage population-group risks over time", says Kenealy. He says there is "widespread agreement that the intentions of the new system are sound" and an improvement on the past. But although access to services has improved, it is still too early to measure any improved health outcomes associated with the new system.

He believes the changes will most benefit those who currently face the highest barriers, such as cost and cultural alienation, to enjoying the benefits of primary health care services. ■

The return of yaws



WHO

Dr Kingsley Asiedu

Dr Kingsley Asiedu received his MD from the University of Science and Technology Kumasi, Ghana in 1990. After completing his rotations at the Komfo Anokye Teaching Hospital in Kumasi, he started his career in public health in 1993 in the remote rural district of Amansie West, one of the country's most deprived areas. From 1996 to 1997, he earned his public health degree with a focus on health policy and management at the Rollins School of Public Health, Emory University, Atlanta, United States of America. He joined WHO in 1998 as a medical officer responsible for Buruli ulcer. He is currently responsible for two neglected tropical diseases – Buruli ulcer and yaws – in the Department of Control of Neglected Tropical Diseases.

The World Health Organization (WHO) launched the Global Yaws Programme with the United Nations Children's Fund (UNICEF) in 1952. It treated 300 million people in 50 countries and reduced global levels of the disease by more than 95% by the end of 1964. The problem was nearly solved, but there were resurgences particularly in the 1970s and recently in 2006. Kingsley Asiedu talks about what went wrong in the past and how to make sustainable gains in the control of this little-known disease today.

Q: Many people today have never heard of yaws. Why are you and other experts revising old treatment guidelines for yaws?

A: Today, many people living in the tropics only hear about this disease from their grandparents. Past generations remember the miracle cure – just one injection and the patient is cured. Many people have forgotten the disease and many experts who worked on WHO's Global Yaws Programme in the 1950s and 1960s have died or are too old now. The new generation of nurses and doctors haven't seen the disease, because it's in remote areas where health service coverage is very low. We are revising a handbook published by WHO in 1984 to help the new generation of health workers.

Q: Is this why you convened a group of people most of whom are retired to update the manual?

A: Even at WHO, the expertise left in 1990. In countries, yaws programmes were dismantled in the 1970s and early 1980s, so there are hardly any experts on yaws left. We convened experts from India and Togo, as well as an expert who ran the last WHO yaws programme in the 1980s.

Q: What is yaws?

A: Yaws is a skin disease caused by a bacterium called *Treponema pallidum* subspecies *pertenue*. It often starts as a single lesion of swelling on the skin, but without treatment it leads to multiple lesions all over the body. It causes pain but doesn't kill patients, so little is heard about this disease. In the late stages, which are rare these days, it can lead to disabilities and disfigurement in 10% of untreated cases. The most prominent of these complications is the destruction of the nose.

Q: Which parts of the world are affected by yaws?

A: Sixty years ago the problem was in all tropical regions including northern Australia. Africa was the most affected area based on the most recent WHO estimates from the 1990s and we are yet to know the true scale of the problem there today. India reported its last cases in 2003, while Indonesia and Timor Leste still have some cases. Papua New Guinea and two other Pacific island countries, Solomon Islands and Vanuatu have reported cases and there are some pockets in the Amazon region.

Q: How easy is yaws to diagnose and treat?

A: It is easy for those who have worked with the disease to diagnose it and for others to learn how to diagnose it based on the clinico-epidemiological features. Treatment is simple, just one injection of benzathine penicillin, which is one of the cheapest antibiotics you can get today. Unlike treating other diseases, there is no need to follow up on the patient once treated, as one injection is enough to cure him or her.

Q: How does yaws affect peoples' lives?

A: It can be crippling and debilitating, though this extreme form has become rare today because people sooner or later get an injection of penicillin. Children who have the disease look miserable, they have a fever and pain in their joints. When I worked in Ghana in Amansie West district in the 1990s, we did not see the crippling effects as people were getting the injections. We did not take the campaign approach and did not go into the community to look for more cases. Our goal was not elimination but control. We were doing our best for the patients. But this approach is not the one that is needed in future to eliminate the disease globally.

“We want to secure political commitment so that this disease can be written into the history books of public health.”

Q: From the 1950s to 1970s, WHO and UNICEF managed to control yaws in 46 countries. It made a comeback in the 1970s. Again control efforts were successful in the 1980s and 1990s, then it re-emerged. Why can't WHO and other international organizations be more consistent in the assistance they provide to achieve sustainable health gains?

A: This is a difficult question. You are right. In 1978 the World Health Assembly resolution on yaws alerted the world to the return of this disease

and there were renewed control efforts in the early 1980s up to 1985 in response to that. Then came HIV and other global priorities. I am sure that if yaws had been dealt with properly, we would not have this as a health problem anymore. Political and donor will is needed. If countries commit to ridding themselves of the disease, they may get international backing and help. It's a mixture of reasons why we haven't achieved sustainable health gains in yaws control, but let us hope that this time we will get it right.

Q: Is it necessary to eradicate yaws and how long would that take?

A: Yaws is amenable to eradication, like polio and guinea worm. It should be eradicated because, if left undetected, it leads to severe disfigurement and disability and it can spread. In India, yaws has been eliminated. Compared to 60 years ago, it's a small health problem globally. There are very few pockets of yaws today, not at national level but in the communities, where it's a major problem. We say that "where the road ends, yaws begins". It affects marginalized or isolated communities. In India, it has been tribal populations. In Africa, for

example, the pygmies in central Africa are heavily infected. To do something for these poor people for whom there is no access to health services, the motive is purely humanitarian. We want to secure political commitment so that this disease can be written into the history books of public health. We are not looking for large amounts of money compared to the huge resources going into other health programmes. There have been two main efforts to eliminate yaws, in the 1950s and 1960s, and in the 1970s. The disease was not eliminated, but the programme got eliminated. The responsibility for eradication lies with countries. The role of WHO is to advocate from the global level, and give renewed guidance on the control and capacity building, and give support.

Q: How will WHO get the necessary global coordination to do this? Will it launch an eradication campaign?

A: We don't expect to go to that scale, we believe we need some modest resources to support countries and countries already have some resources of their own. If we are really determined to eliminate this disease it would require some dedicated resources.

When there are only a few last cases, the disease is not considered a priority any more. Therefore, going after the last cases is always a bigger challenge because you need an enormous amount of resources and continuous commitment of partners.

Q: What are the lessons learned from the yaws experience, in terms of the control of the disease for many years and its re-emergence?

A: Success can lead to neglect; it is a vicious-circle of success and neglect. It was a great public health achievement of the past, but that success led to the neglect and problem we face today of trying to revive control efforts. If some diseases are set for elimination or eradication within a specific timeframe, every effort should be made to get that goal accomplished in time before other health problems take over. Finally, the re-emergence of yaws gives all of us another lesson about infectious diseases that are transmitted from human to human. No one is safe until everyone is safe. Just dealing with a specific geographic area without being sure your neighbours are free will lead to the disease transferring from endemic to non-endemic places. ■

Recent news from WHO

- WHO and other United Nations agencies made the first high-level international visit since last month's peace accord to the central west Sudanese town of Abyei on 19 June. The mission was to plan for the **reconstruction of health facilities** and other vital infrastructure in the town, as well as for the return of thousands of people.
- China and the United Arab Emirates (UAE) have made impressive strides in tackling the risk of contamination from **unsafe blood** by reaching close to 100% voluntary blood donation. Their efforts to increase their safe blood base were promoted as models for other countries to follow, on the occasion of World Blood Donor Day, on 14 June.
- The first ever **HIV/tuberculosis** Global Leaders' Forum called for action to strengthen the response to this lethal dual infection. The forum, held in New York on 9 June, was the largest gathering of world leaders at a tuberculosis event. Speakers included UN Secretary-General Ban Ki-moon and WHO Director-General Dr Margaret Chan.
- Nearly 3 million people are now receiving **antiretroviral therapy** in low- and middle-income countries, according to a new report launched 2 June by WHO, the Joint United Nations Programme on HIV/AIDS and United Nations Children's Fund. The 3 by 5 campaign that sought to have 3 million people living with HIV on treatment by 2005 has now been met. The report, *Towards universal access: scaling up priority HIV/AIDS interventions in the health sector*, can be found at: <http://www.who.int/hiv/mediacentre/2008progressreport/en/index.htm>
- WHO urged governments to protect the world's 1.8 billion young people by imposing a **ban on all tobacco advertising, promotion and sponsorship**. WHO's call to action came on the eve of World No Tobacco Day on 31 May. Recent studies show that the more young people are exposed to tobacco advertising, the more likely they are to start smoking. Despite this, only 5% of the world's population is covered by comprehensive bans on tobacco advertising, promotion and sponsorship. Tobacco companies, meanwhile, continue targeting young people by falsely associating use of tobacco products with qualities such as glamour, energy and sex appeal.
- WHO and its Health Cluster partners in Myanmar launched a six-month action plan on 30 May to provide immediate **health care for cyclone survivors** and to support longer-term efforts to rebuild the country's ravaged health system.

For more about these and other WHO news items please see: <http://www.who.int/mediacentre>