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in collaboration with Great Lakes Epidemiological Bloc

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EDITORIAL

Epidemic disease surveillance and response is a key component in the control of communicable diseases. Efforts put in containing epidemic diseases in Uganda and the Great Lakes sub-region are commendable.

The foundation of epidemic disease control is based on laboratory services for the detection and confirmation of disease outbreaks. The work done in laboratory networking is promising as this is the cornerstone for rapid confirmation and response to epidemics. More effort should be put on improving the skills of laboratory cadres and provision of adequate lab equipment and supplies to as many health facilities as possible.

Finally, the gains registered in immunisation services are a positive pointer to the management of childhood illnesses and these should be consolidated. The efforts put in so far are highly commendable.

Dr. Oladapo Walker - WR Uganda

Laboratory Networking on the Move

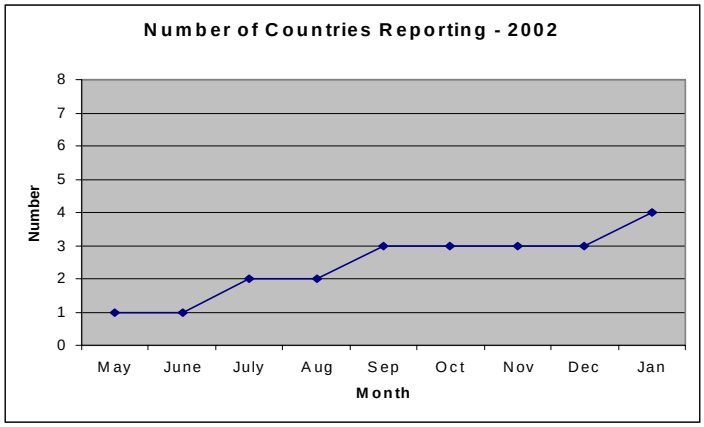
MEMBER STATES OF THE GREAT LAKES Epidemiological Bloc committed themselves, through the Kigali Protocol of Cooperation signed in 1997 to strengthen laboratories at all levels for early detection, confirmation and surveillance of epidemic potential diseases in the sub-region. These laboratories, led by the respective National Public Health Laboratories (NPHL), are to be grouped into a functional network in the sub-region. Some of the essential steps in establishing a network included:

(i) statement of purpose, defining goals and objectives.
(ii) establishment of ground rules, including communication plans.
(iii) making an action plan, defining responsibilities
(iv) securing resources and implementation of the plan.
(v) monitoring and evaluation.

In order to assess laboratory performance in the countries, the following core indicators for provincial and national levels have been proposed to monitor capacity of laboratories to confirm diagnoses and involvement of laboratories in surveillance activities:
(i) proportion of NPHL submitting reports to MoH/WHO as per Protocol of Cooperation (stated above),
(ii) proportion of outbreaks of epidemic prone diseases with laboratory confirmed results, and
(iii) proportion of provincial laboratories reporting/referring specimens to NPHL.

Since the signing of the protocol, most countries in the Great Lakes and Horn of Africa sub-regions have taken some steps in making operational the laboratory component. In order to provide support to the countries, WHO/AFRO organised a training of key laboratory staff of NPHL in South Africa in 2001. At the end ofthe training, some reagents for priority pathogens were distributed.

In order to facilitate data/information exchange, WHO/AFRO provided each NPHL with a computer and US $ 1,000 for E-mail connection. Furthermore, in June 2002, a data management workshop for laboratorians was conducted by WHO/AFRO in Dar es Salaam to improve laboratory reporting from countries. With this support, reporting of laboratory data by NPHL for surveillance began in a few countries and is steadily increasing , as from May 2002 *(see graph below)*.



Source: WHO-GL & HA Blocs

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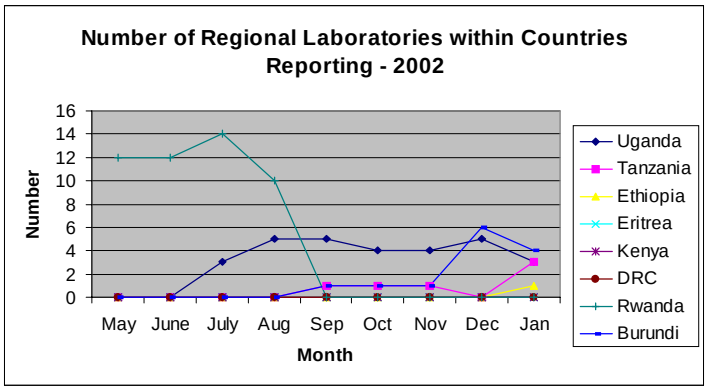
DR Congo, Eritrea and Kenya have no report since the inception of this activity. During the last quarter of 2002, Burundi, Uganda and Tanzania reported continuously for the 3 months. Rwanda did not report in the last quarter while Ethiopia has just started in January 2003.

Regarding the proportion of provincial laboratories reporting to the national level, it is not yet possible to estimate because countries are yet to establish which provincial laboratories are able to offer a confirmatory service for common epidemic potential conditions in the region. In Uganda, only 3 out of 10 regional referral hospitals are able to offer this service.

The graph below shows the number of health units which submitted specimens for investigation per month, beginning May 2002.



Source: WHO-GL & HA Blocs

Rwanda had up to 14 units submitting specimens until October when no more reports were received. Burundi and Tanzania consistently had 1 centre (the capital cities of Bujumbura and Dar es Salam) reporting until December and January 2003 when more rural units began submitting specimens. For Uganda , more than 2 units have been reporting or submitting specimens except during the month of November.

It is important to note that reporting is not complete; for example, although there was a meningitis outbreak in Kigoma, north-west of Tanzania at about the same time as the outbreak in Burundi and Rwanda in July/August 2002, it is not reflected in the NPHL data. Nevertheless, the effort to analyse and report by the NPHL is an indication that a network is being developed.

A major factor that enabled NPHL to report is the designation of one specific person in the laboratory to manage laboratory data. Countries that have not yet managed to summarize their data may consider this option to ensure monthly analyses of their data.

Regarding pathogens isolated, it is worth noting that in Burundi, meningococcus W135 was isolated from 3 specimens in January 2003.There being no readily/ cheaply available vaccine for this pathogen, its control in this region depends primarily on case management and prophylaxis. NPHL in member states should be actively engaged in surveillance for this pathogen. For *Vibrio cholerae 01 El Tor,* the *Inaba* type is prevalent in Tanzania (Dar es Salam data); in Uganda, it is *Ogawa* which is prevalent mostly in western Uganda.

Although there are confirmed outbreaks, this indicator is not complete in the countries. In Uganda, the proportion of laboratory confirmed outbreaks of bacterial origin was 68% and 58% for the years 2001 and 2002 respectively; over 80% of outbreaks were investigated by NPHL.

In summary, some modest progress has been made towards establishing a laboratory system for surveillance and control of communicable diseases. To implement the laboratory component of the "Kigali Protocol" at a rate that will significantly decrease morbidity and mortality caused by communicable diseases, all NPHL in the sub-region need to apply more the steps proposed above for building national and sub-regional laboratory networks and use the core indicators stated above to assess their performance. ❑

SYNTHETIC REPORT OF ACTIVITIES FOR NATIONAL REFERENCE LABORATORIES
October-December 2002

AGENTS/PATHOGENS		COUNTRY (Number in brackets = lab units that reported)		
		BURUNDI (7)	TANZANIA (2)	UGANDA (5)
CSF	Number processed	81	0	2
	N.meningitidis --A	4	0	0
	N.meningitidis -- W 135	1	0	0
	Other N.meningitidis	0	0	2
	Other agents/pathogenes	3Str pneu	0	1
STOOLS	Number processed	83	236	88
	V. cholerae, 01, El Tor, Ogawa	0	0	35
	V. cholerae, 01, El Tor, Inaba	0	47	0
	Other V. cholerae, not typed	3	74	0
	Shigella dysenteriae type 1	6	0	1
	Other shigellae	7	0	1
	Salmonella typhi	6	0	2
	PolioVirus and Enterovirus	0	0	0
BLOOD	Number processed	144	0	5
	Bacteries, specify	2Salm sp 20S.typh 2 S.aureu	0	0
OTHER SPECIMENS	Number processed	216	0	2
	specify the pathogens	6 coliforms in urine	0	0

Source: Ministries of Health.
*******Kenya, Rwanda, Eritrea, Ethiopia and DR Congo did not report during the period under review.***

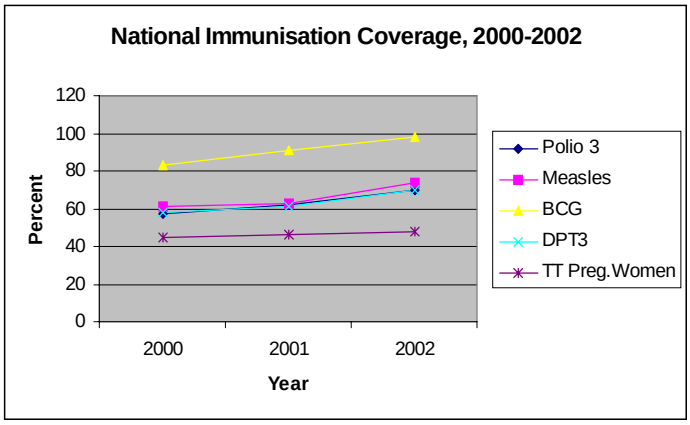
Improvement in Immunisation Coverage in Uganda

THE IMMUNISATION PROGRAMME in Uganda has successfully achieved an acceptable coverage with its highest level reached in 1994/95. Due to unexpected reasons, this achievement dropped down from 1996 to 2000. Thereafter, a revitalisation programme was initiated to revive the earlier achievements.

Revitalisation of immunisation services in Uganda is ongoing. This is line with restoring the upward trend of immunisation coverage that was realised in the mid-1990s and sustaining it. The national revitalisation programme was officially launched in July 2002 with the introduction of two new additional antigents to the DPT *(Haemophillus Influenzae - type B and Hepatitis)*.

The monitoring of the utilisation of the immunisation services is based on DPT3 coverage, which is a key Health Sector Strategic Plan (2000/2005) indicator in Uganda. The target for the year 2005 was set at 80%. During the period 2000-2002, only 21% of the districts have managed to meet a DPT3 immunisation coverage rate of at least 80%. However, during the period under review, there has been a general improvement in immunisation coverage. In 2002, the proportion of districts that have registered a high DPT3 immunisation coverage (at least 65%) improved to 63% from 45% in 2000. The overall national coverage for DPT3 has improved from 58% in 2000 to 61% in 2001 and 70% in 2002.

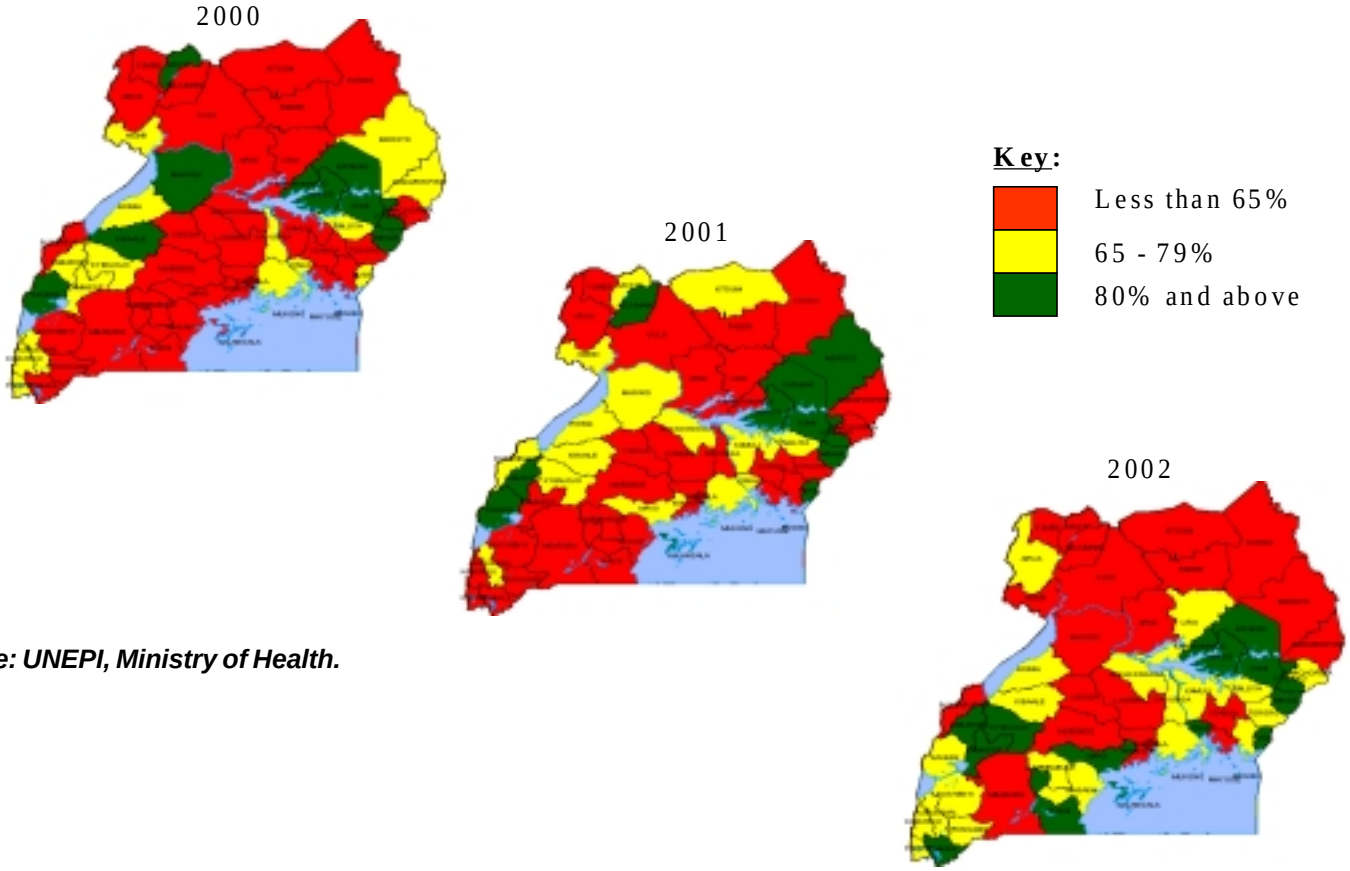
The trend of coverage for the other antigens has been also been improving progressively as shown in the graph below.



Source: UNEPI, Ministry of Health.

The effort put in by the different stakeholders is commendable. However, 37% of the districts are still below 65% immunisation coverage. Although it is understandable that northern districts (insecure) have low coverage, it is not acceptable for the districts in Central and Western regions (secure) to register coverage below 65%. Therefore, there is need to focus the effort in the districts with an immunisation coverage below 65%. Improved monitoring and supervision at all levels will enable the poorly-performing districts to improve and consolidate or sustain the already achieved gains. ❑

DPT3 Coverage 2000-2002



Source: UNEPI, Ministry of Health.

Cholera Epidemic Surveillance and Response

(4 years of efforts in the Great Lakes Region)

IN THE GREAT LAKES REGION, cholera epidemics have been spreading in the past across and within countries without effective joint surveillance and response mechanisms. Facing this situation, countries agreed upon a strategy for strengthening surveillance and response mechanisms through the Kigali protocol. WHO Regional Office for Africa has accompanied this effort by establishment of inter-country teams and support to implementation of the Integrated Disease Surveillance and Response (IDSR) strategy.

In the last 4 years, joint efforts have been done by both country and inter-country teams in cholera epidemic surveillance and response. Before 1998, cholera epidemics were occurring silently in the Great Lakes countries without the knowledge of the neighbouring countries. In 1998, efforts were done by WHO in the establishment of the inter-country team to support the countries in surveillance and response to epidemic potential diseases. Since then, remarkable progress has been observed such as:

- cross-border meetings (the first one on cholera held in Cyangugu, Rwanda in May 1998).
- sharing cross border information has been achieved in the area of epidemic surveillance and response.
- Laboratory confirmation of cholera agents improved.
- Overall review meetings at inter-country level held.
- Strengthened weekly reporting during outbreaks.
- Increase in buffer-stocks of solutions (IV and oral) for cholera case management.

Regarding epidemic distribution, there was a huge cholera epidemic in the Great Lakes countries in 1998. The most affected countries were Uganda and Tanzania where most of the districts were affected. All regions in Tanzania were affected with 8 out of the 20 regions reporting more than 1,000 cases. In Uganda, the most affected were 17 out of 56 districts (more than 1,000 cases), all of them located around the lakes (Albert and Victoria) and on the borders. Burundi and Rwanda were less affected, with most cases reported in the provinces bordering Lakes Kivu and Tanganyika.

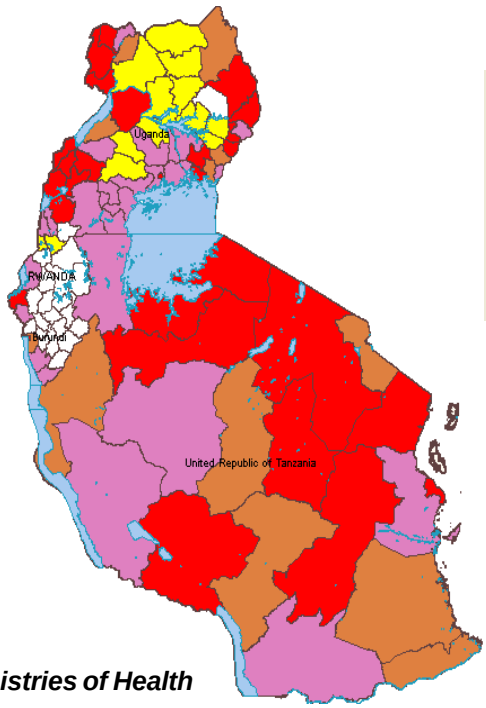
In 2002, the cholera epidemic distribution shows a significant reduction in terms of provinces/districts affected. In 1998, only one district was not affected in Uganda while in 2002, 43 (out of 56) in Uganda and 8 (out of 20) inTanzania were not affected. In the sub-region, only Tanzania reported more than 1,000 cases in one region during 2002. Overall, the most affected areas across the countries were located along water bodies (Lakes Tanganyika, Kivu, Albert and the Indian Ocean).

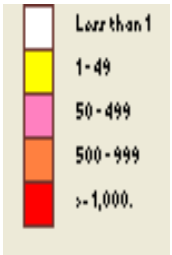
Concerning case management, although there was under reporting of cases and deaths, a significant improvement in the reduction of case fatality rate (CFR) in 1998 compared to the following years was observed. In 1998 and 1999, CFR was more than 4 % while in 2000, it was reduced to less than 3%. In 2002, CFR was 3.6.%. The reduction was mainly due to the improved knowledge of the health workers and the sensitization of the population in the affected areas. Although CFR was reduced in most areas, it is still higher than the recommended WHO level (below 1%). It is also noticed that CFR is generally high in the newly affected areas due to the insufficient health education in the recognition of the disease and the early consultation of the nearest health units.

The current location of cholera epidemics is a clear indication that joint efforts should focus along water bodies (lakes and the Indian ocean). The control of the epidemic requires the participation and committment of different countries. In addition to this, there is need for an operational research to identify the most contributing risk factors to the occurrence of the epidemic. As this research requires the participation of the affected districts/countries, contacts are being done to have the participation of the health authorities of the affected bordering areas. ❑

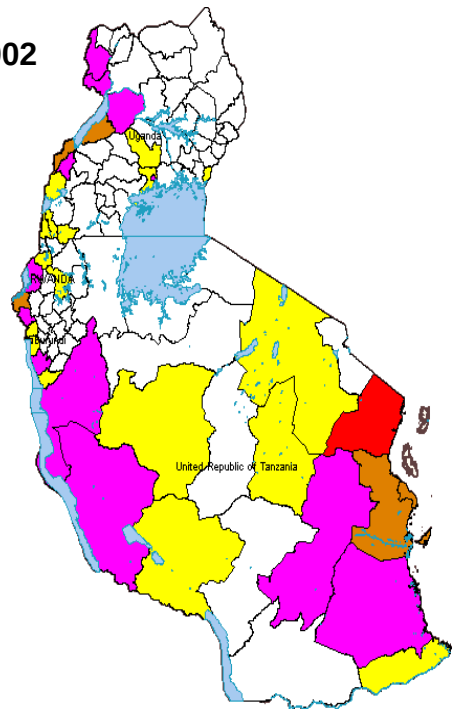
Distribution of Cholera Cases in GL Countries

1998





2002



Source: Ministries of Health