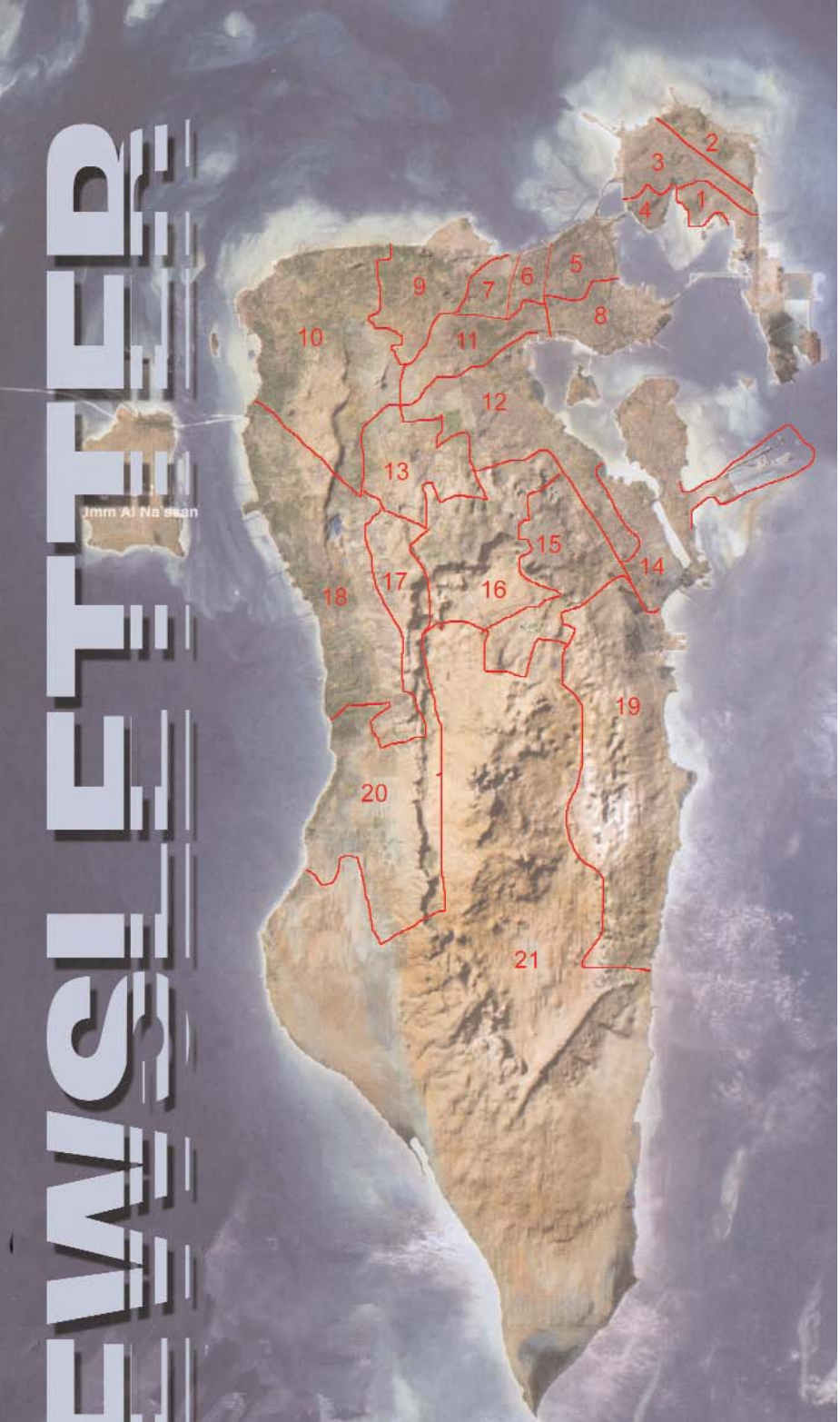
NEWSLETTER



IMMUNIZ

Expanded Programme on Immunization
Ministry of Health - Kingdom of Bahrain
Volume 3 - Number 1 - 2003

Recommended Immunization Schedule for the Expanded Programme on Immunization, Kingdom of Bahrain

AGE	VACCINE	DOSE
At birth	BCG	BCG for non Bahraini newborns
2 months	DTP + HB + Hib	1st Dose
	OPV	1st Dose
4 months	DTP + HB + Hib	2nd Dose
	OPV	2nd Dose
6 months	DTP + HB + Hib	3rd Dose
	OPV	3rd Dose
12 months	MMR	1st Dose
18 Months	DPT + OPV	1st Booster
	Hepatitis B+Hib	Booster
2 years	Meningococcal	Single Dose
5-6 years	DPT	2nd Booster
	OPV	2nd Booster
	MMR	2nd Dose
12 year	MMR	2nd Dose
13 years	Tetanus diphtheria	Booster
14 years	Hepatitis B	3 Doses
Pregnant	Tetanus toxoid	For previously unimmunized women
		TT1 at first contact
		TT2 at least 4 weeks after TT1
		TT3 at least 6 months after TT2
		TT4 at least 1 year after TT3
		TT5 at least 1 year after TT4

Other Vaccines Present in Bahrain

VACCINE CATEGORY	VACCINE	DOSE
For unimmunized adults	Tetanus diphtheria	3 doses 0-4 weeks - 6 months apart. Booster doses at 10 year intervals
For elderly Hajj pilgrims	Influenza	Single Dose
Hajj pilgrims Umra travelers(not immunized)	· Meningococcal	Single Dose
	· Tetanus diphtheria	2 doses 4 wks apart
Travelers to endemic areas	· Yellow Fever	Single Dose
	· Typhoid	Single Dose
For post exposure treatment to persons returning from a rabies - infected country and give a history of exposure to a rabid animal.	Rabies	Six dose series on days 0,3,7,14,30 and 90
For contacts of hepatitis B case/carrier.	Hepatitis B vaccine	3 Dose series 0, 1 and 6 month
For immunocompromised children	Inactivated polio vaccine	4 Dose series - 3 doses in the 1st year of life and one booster in the 2nd year of life
For high-risk groups	Pneumococcal >2yrs	Single dose
	Influenza	Single dose annually

Plan for Hepatitis A Vaccination Programme
Proposed Immunization Programme for the Control of Hepatitis A in Bahrain

Background

The Public Health Directorate (PHD) Immunization Unit had planned to introduce hepatitis A vaccine in the routine childhood immunization programme in Bahrain. Hepatitis A vaccine is available in some private health facilities since the year 1998.

The Disease

Hepatitis A is caused by hepatitis A virus (HAV) and is common throughout the world. Humans are the only reservoir of HAV. A chronic carrier state does not exist. The common modes of transmission include close personal contact with an infected person and ingestion of contaminated food and water. The disease produces a wide spectrum of clinical manifestations. The disease spectrum is characterized by the occurrence of many asymptomatic cases. Relapse may occur but total recovery is the rule. A cholestatic form of hepatitis A may occur but recovery is universal. Fulminant hepatitis is rare. It occurs usually in elderly patients and is related to exacerbations of underlying chronic liver disease. The case fatality rate is <0.1%.

Situation Globally

An estimated 1.5 million clinical cases of hepatitis A occur every year globally. Reported incidence rates in industrialized countries range from 10 to 50 per 100,000 population annually and 50 to 300 per 100,000 population in developing countries.

Situation in Bahrain

The exact incidence of hepatitis A in Bahrain is difficult to estimate due to the high proportion of asymptomatic cases. In Bahrain, the reported incidence rate of hepatitis A for the period 1995 to 2002 has ranged from 20.7 to 30.9 per 100 000 population (Table 1). The vast majority (74%) of cases were children aged < 14 years. Approximately 34% of cases were imported.

The majority of adults got natural immunity due to exposure to subclinical infection.

Table 1: Hepatitis A Incidence and Rate per 100 000 Population Bahrain, 1995 - 2002

Year	Incidence	Rate *
1995	129	22.0
1996	145	24.7
1997	168	27.1
1998	163	25.4
1999	184	27.6
2000	143	20.7
2001	179	27.5
2002	206	30.9

* Rate: per 100,000 population

Global Public Health Aspects

In areas of low endemicity, the disease occurs in adolescents and adults in high risk groups (injection drug users, homosexual men), travelers and certain ethnic groups. In areas of intermediate endemicity most cases occur in late childhood and early adulthood. In areas of high endemicity, most infections occur in early childhood and are asymptomatic. Thus clinical hepatitis A is rarely seen. Practically all adults have serological evidence of past infection.

Hepatitis A Immunization Strategy

According to WHO, hepatitis A immunization strategies will vary depending on the level of endemicity. For Bahrain and countries of intermediate endemicity, where transmission occurs primarily from person to person, control may be achieved through widespread vaccination programmes. Local surveillance and epidemiological data will determine the best vaccine strategy. If the goal is to reduce the national incidence of hepatitis A, the strategy would be to incorporate hepatitis A vaccine in the routine childhood immunization schedule.

If a marked reduction is aimed at an accelerated vaccination programme for school children aged 6 - 18 years would eliminate the main source of infection and the disease would cease to be a health problem. In 2002, sixty percent of hepatitis A cases were in the age group of 6 - 18 years (Table 2).

Travelers form an important group, since one third of all reported cases were imported. Once introduced, the virus is disseminated among the susceptible population.

Goals

The goals of proposed programme are to:

1. Protect persons from infection.
2. Prevent transmission of HAV infection.
3. Reduce the incidence of disease.

Hepatitis A Vaccine

The inactivated hepatitis A vaccine is given intramuscularly as two dose series of 6-12 months apart. The vaccine is given to children above one year of age. Children aged 1 - 18 years are given the paediatric formulation which contains 720 EU per mL. Those above 18 years of age are given the adult formulation which contains 1440 EU per mL.

Table 2: Distribution of hepatitis A cases by age group, Bahrain 2002

Age group	Number of cases	%
0 - 5 years	44	21.4
6 - 18 years	123	59.7
19 - 29 years	30	14.6
30 - 38 years	9	4.3
Total	206	100

Hepatitis A vaccines are highly immunogenic. The protective efficacy in preventing clinical hepatitis A was found to be between 94% and 100%. The duration of protection is likely to be at least 20 years and possibly lifelong.

Target groups

1) All children aged 12 months to 24 months

Age	Dose	No of Children	Year of commencement
12 months	1st	15000	2004
24 months	2nd	15000	2004

2) Schol children aged 6 - 18 years

Dose	No of Children	Year of commencement
1st	150000	2005
2nd	150000	2006

3) Travelers to high endemic areas.

Hepatitis A Cases and Rate per 100,000 Population Bahrain, 1995 - 2002

A data management workshop was conducted by the Immunization Unit on March 24-25, 2003, to discuss the data immunization coverage estimates which are used for a variety of purposes:

- To monitor the performance of immunization services at health centre and national levels;
- To guide polio eradication, measles control, and neonatal tetanus elimination;
- To identify areas of weak system performance that may require extra resources and focused attention; and,
- As one consideration when deciding whether to introduce a new vaccine.

Coverage levels with diphtheria-pertussis vaccine (DTP) is considered one of the best indicators of health system performance and Ministry of Health frequently considers immunization converge levels when reviewing applications for financial and technical support.

In summary all sources of empirical data are potentially subject to a variety of biases. The challenge is to interpret the data estimate of immunization coverage.

Editorial

إشادة من منظمة الصحة العالمية بالبرنامج الموسع للتمنيع في مملكة البحرين

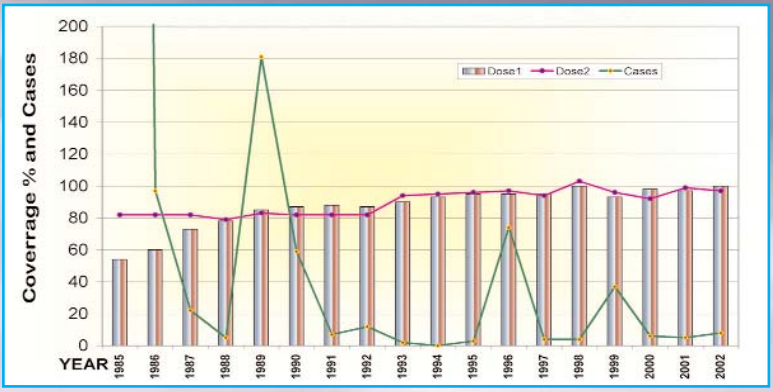
وجهت منظمة الصحة العالمية رسالة شكر لمملكة البحرين لتطبيقها النظام الالكتروني والمختص بتسجيل تطعيمات طلبة المدارس إلكترونيا بالحاسب الآلي مباشرة حيث أن هذا البرنامج يوصل البيانات الخاصة بالتطعيم في المدارس مباشرة بعد التطعيم مع مركز المعلومات الصحية والإحصاء بحيث يمكن تتبع تطعيمات الطالب من خلال الرقم السكاني مباشرة، وبعد عدة سنوات سوف يكون هذا البرنامج مدمجا مع برنامج تسجيل تطعيمات الطفولة إلكترونيا بحيث أن كل طالب ينهي دراسته المدرسية يكون له سجل تطعيم إلكترونيا، أيضا من مميزات هذا البرنامج هو سهولة تتبع المتخلفين عن التطعيم والتأكد من استكمال تطعيماتهم.

هذا البرنامج هو الأول من نوعه في الوطن العربي وعن طريق هذه البرنامج تم إيجاد آلية لمعرفة نسبة التغطية بالتطعيم لكل مدرسة على حده، سواء كانت حكومية أو خاصة، الأمر الذي يساعد على تقييم برنامج التحصين بالمدارس واكتشاف المشكلات إن وجدت في حينها والعمل على حلها.

كما أضاف البرنامج بنداً خاصاً لمتابعة الأعراض الجانبية للتطعيم بالمدارس والعمل على تتبعها وإيجاد الحلول لها حيث أنه بالإمكان رصد الأعراض الجانبية مباشرة وتقييمها إلى جانب التخطيط لبرامج التوجيه الخاصة بالتطعيم والأمراض التابعة لها والوقاية مسبقاً.

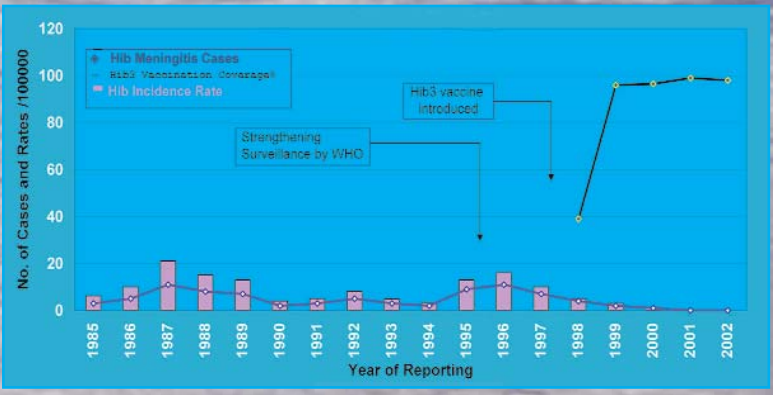
كما يمكن تحديد نسبة التغطية بالتطعيم بالمدارس وفق ما تنتج عنه الإحصائيات الشهرية والسنوي والتي يمكن استخراجها مباشرة من الحاسب الآلي.

Measles Immunization Coverage Dose 1 & 2 for Infants and Children and Measles Cases, Bahrain, 1985 - 2002



OPV3 Vaccination Coverage % and Reported Poliomyelitis Cases - Bahrain, 1968-2002

Haemophillus Influenzae Type (b) Meningitis Cases and Incidence Rate (0-5 Years) and Haemophillus Influnzae Type (b) Vaccination Coverage, Bahrain, 1985-2002



National EPI Managers, Damascus - Syria, July 2003

Immunization Safety

EVERY PATIENT bringing a child for immunization is placing their trust in you.

Nothing is more important to aparent than the special protection that immunization brings. It is your responsibility to ensure that immunization is given safely, without and risk to the child, without any risk to you, and without any risk to your community.

It has been known for some time that needle-stick injuries and unsterile medical procedures, including injections, can transmit infectious diseases which are life threatening. Each year, worldwide, the overuse of injections and unsafe injection practices cause an estimated 8 to 16 million Hepatitis B virus (HBV) infections, 2 to 5 million Hepatitis C virus (HCV) infections and 80, 000 to 160,000 HIV infections (Kane, 1999). All of these infections lead to a high burden of chronic disease, disability and death (Miller, 1999). Besides An estimated 600,000 health care professionals suffer from needle-stick injuries in the U.S. each year. While immunization injections are responsible for only a small fraction of the overall injection load, their proportion is increasing in the wake of the maternal and neonatal tetanus and measles elimination campaigns. A strategy to promote and ensure safer injection practices in immunization services as a first step to improve the safety of all injections is clearly warranted.

Three critical issues need to be considered in injection safety: The direct risk to the recipient from the re-use of syringes of needles and use of non-sterile equipment, the risk to the injection provider from inappropriate waste collection and the risk to the community from inappropriate waste treatment and disposal.

During its 15th meeting in June 2002, the EPI Regional Technical Advisory Group, WHO/EMRO and UNICEF/ MENAR, discussed injection safety in immunization services and recommended that information on injection safety be continuously provided by WHO to all EPI managers; that options for safe disposal be examined in regular regional meetings; that regional injection safety plan of action be established by the end of 2002 in accordance with WHO guidelines; that national-level policies and guidelines on injection safety and waste management be established in all countries; and of action be performed in all countries by the end of 2003.

WHO/EMRO promotes safer practices in immunization injections in all countries of the region through the phased introduction of Autodestruct (AD) syringes including the proper disposal of used injection equipment and proper waste management practices. The change of injection technology, however, represents a major challenge for some countries, in particular in the area of sharps waste management. The WHO-UNICEF-UNFPA joint statement on the use Autodestruct (AD) syringes encourages partners of immunization services and countries to consider good-quality vaccines, Auto-destruct (AD) syringes and safety boxes as three components that

must be part of a "bundle". This systematic "bundled" distribution needs yet to be implemented in the region.

The WHO Recommendations Regarding Immunization Safety during the 20th Inter-Country Meeting of National EPI Managers held in Syria, 2003

- The WHO Technical Advisory Group (TAG) feels that the EPI programme is in a leadership position to promote safe injections.
- EMRO should assist countries interested in technology transfer for the manufacture of Auto-destruct (AD) syringes.
- The TAG recommends that all member states develop a national plan on injection safety according to the regional plan of action.

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