Worldwide implementation of hepatitis B vaccination of newborns, 2006

Hepatitis B virus (HBV) infections are a major cause of cirrhosis and liver cancer globally. WHO recommends that all countries introduce hepatitis B vaccine into routine national infant immunization programmes.[1] Furthermore, in countries where a high proportion of infections with HBV are acquired perinatally (speci cally in countries where the prevalence in the general population of chronic HBV infection is ≥8%), WHO recommends that the rst dose of hepatitis B vaccine be given as soon as possible after birth (<24 hours) to prevent perinatal HBV transmission.[1] To assess implementation of vaccination of newborns with hepatitis B vaccine, data from the 2006 WHO and UNICEF Joint Reporting Form were examined.[2] The ndings show that in 2006, 163 (84%) of 193 WHO Member States had introduced hepatitis B vaccine into their national infant immunization schedules; 81 (42%) reported using a schedule with a birth dose of hepatitis B vaccine (de ned by the reporting form as a dose given within 24 hours of birth). Globally, the reported proportion of newborns who received a birth dose of hepatitis B vaccine was 27%. For the 87 countries with historically high endemicity of chronic HBV infection, reported coverage of the birth dose of hepatitis B vaccine was 36%.

Since 1998, WHO and UNICEF have used the reporting form to collect information annually from Member States on the number of births and surviving infants, vac-

[1] . 28, 2004, . . 255 263.

[2] 2007 (/2007). (A :// . /2007/ 7 2007

Mise en œuvre de la vaccination des nouveau-nés contre l'hépatite B partout dans le monde entier, 2006

Les infections par le virus de l'hépatite B (HBV) sont une cause importante de cirrhose et de cancer du foie partout dans le monde. L'OMS recommande à tous les pays d'introduire le vaccin anti-hépatite B dans les programmes nationaux de vaccination systématique du nourrisson.[1] En outre, dans les pays où une proportion importante des infections à HBV sont contractées dans la période périnatale (plus précisément, dans les pays où la prévalence de l'infection chronique à HBV dans la population générale est ≥8%), l'OMS recommande d'administrer la première dose de vaccin dès que possible après la naissance (<24 heures) a n d'éviter la transmission périnatale de ce virus.[1] Pour évaluer l'application de cette vaccination aux nouveau nés, on a examiné les données du formulaire conjoint de noti cation OMS/UNICEF pour 2006.[2] Les résultats montrent que cette année-là, 163 (84%) des 193 Etats Membres de l'OMS avaient introduit le vaccin anti-hépatite B dans leur calendrier national de vaccination des nourrissons; 81 (42%) ont indiqué avoir appliqué un calendrier comportant une dose de vaccin anti-hépatite B à la naissance (dé - nie dans le formulaire de noti cation comme une dose administrée dans les 24 heures suivant la naissance). Dans le monde, la proportion de nouveau-nés ayant reçu une dose de vaccin anti-hépatite B à la naissance a été de 27%. Pour les 87 pays dans lesquels l'infection chronique à HBV est historiquement fortement endémique, la couverture rapportée de la dose de vaccin anti-hépatite B administrée à la naissance a été de 36%.

Depuis 1998, l'OMS et l'UNICEF se sont servis de ce formulaire de noti cation pour recueillir chaque année des informations auprès des Etats Membres sur le nombre de naissances et

[1] 28, 2004, 255-263.

[2] 2007 (/2007). (:// . /2007/ 7 2007

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cine coverage, and indicators of performance of the immunization system.[2] For hepatitis B vaccine, information is collected about the schedule used, the number of infants receiving 3 doses of the vaccine and, for those countries in which the national immunization schedule includes a birth dose of hepatitis B vaccine, the number of infants receiving that birth dose. Since 2000, WHO

Member States that did not report the coverage of the birth dose were assumed to have 0% coverage for that dose. Of note, among the 81 Member States with immunization schedules that include a birth dose of hepatitis B vaccine, 22 (27%) did not report coverage data on the birth dose. Birth-dose coverage varied widely by region, from 3% to 71% (*Table 2*). Birth-dose coverage for Member States with ≥8% prevalence of chronic HBV infection was 36% (range by region, 1–92%), and for countries with <8% prevalence it was 20% (*Table 2*).

Worldwide, HBV infections are estimated to cause 620 000 deaths annually.[5] Infants who become infected with HBV have an approximately 90% risk of developing chronic HBV infection; when chronically infected, they have a 25% risk of dying prematurely due to cirrhosis or liver cancer. Two primary modes of HBV transmission occur during infancy: (i) from an infected mother to her newborn during delivery and (ii) from an infected household contact to an infant. Globally, perinatal HBV transmission accounts for an estimated 21% of HBV-related deaths, while regionally it ranges from 13% in the Eastern Mediterranean Region to 26% in the Western Paci c Region.[5]

naissances vivantes.[4] Les Etats Membres qui n'ont pas rapporté de couverture pour la dose de vaccin administrée à la naissance ont été considérés comme ayant une couverture de 0% pour cette dose. Il est à noter que, parmi les 81 Etats Membres dont les calendriers de vaccination comportaient une dose de vaccin anti-hépatite B à la naissance, 22 (27%) n'ont pas fait état de données relatives à la couverture de cette dose. La couverture de celle-ci a montré des variations importantes selon les Régions, allant de 3% à 71% (*Tableau 2*). La couverture de cette dose administrée à la naissance dans les Etats Membres où la prévalence de l'infection chronique à HBV est ≥8%, a été de 36% (éventail selon la Région, 1 à 92%) et, pour les pays où la prévalence était <8%, elle a été de 20% (*Tableau 2*).

On estime que les infections à HBV provoquent 620 000 décès par an dans le monde.[5]TableaueJTa 620 000 d0.4(g)-20.4(g)-eV pr Mt 55.6(e)()7.6(7.4(p)17r)7.6(om.4(t)-18.4(ior

of infants immediately after birth, is often provided by maternal health workers, so administering a birth dose of hepatitis B vaccine requires coordination of these 2 types of workers. Third, in many parts of the world, vaccines are delivered from central stores to peripheral clinics at monthly or at even longer intervals; these are primarily intended for use during periodic immunization sessions. Thus, the hepatitis B vaccine needed for the birth dose may not be available every day for administration to newborns.

Analysis of the information reported by Member States through the WHO–UNICEF reporting form suggests that programmes' performance in delivering immunization agiy1gsBHB(n)y1gV8(in)nf28.7(e)-8.c(b)-14.7(t)-18.33(on t)6.7(o)-0.3(new)-19.3(b)-14.3(o)-0.3(r)-23.3(n)5.7ne neeob

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Meeting of the International Task Force for Disease Eradication, May 2008

The twelfth meeting of the International Task Force for Disease Eradication was convened at the Carter Center on 6 May 2008.[1] Since 2001, the task force has made recommendations for ghting several neglected tropical diseases, namely onchocerciasis (recommendations made in 2001 and 2007), schistosomiasis (2001), leprosy (2001), Chagas disease (2001), lymphatic lariasis (2002), dracunculiasis (2003), cysticercosis (2003), hookworm (2004), visceral leishmaniasis (2004), trachoma (2005), malaria (2005, 2006), Buruli ulcer (2007) and yaws (2007). At the 2008 meeting, the task force reviewed integrated approaches to controlling neglected tropical diseases. This meeting occurred 2 days before another meeting, held under the auspices of the United Nations Secretary-General and The Elders,[2] that also met at the Carter

data, 1992–1993, 2007, 2008) found a high prevalence of intestinal schistosomiasis among a sample of communities that did not qualify for MDA for urinary schistosomiasis, so MDA might more ef ciently be administered to all communities without prior assessment (about 50% of communities quali ed for treatment for urinary schistosomiasis and an additional 25% quali ed owing to the presence of intestinal schistosomiasis). Support from the Bill & Melinda Gates Foundation has allowed the programme to integrate delivery of additional interventions against trachoma, vitamin A de ciency and malaria (through the distribution of bednets). Throughout 2007, the programme assisted in delivering >18 million treatments for lymphatic lariasis, 11 million treatments for onchocerciasis, 1 million treatments for schistosomiasis as well as helping to distribute >210 000 bednets in varying combinations as required in the 30 local government areas. Signi cant impact has been documented against all 3 targeted helminthic diseases (A. Eigege, unpublished data, 2008).[4, 6]

WHO classi es neglected tropical diseases into 2 broad categories: those that can be controlled effectively using a strategy of preventive chemotherapy (including lymphatic lariasis, onchocerciasis, schistosomiasis, soil-transmitted helminthiases and trachoma) and those that are more dif cult to diagnose or treat, or both, (such as leishmaniasis, human African trypanosomiasis and Buruli ulcer). Suggestions for delivering MDA to groups at risk (for example, school-aged children, women and pregnant women, communities) and channels for accessing each group (for examples, schools or antenatal clinics) are included in a manual prepared by WHO.[7]

In 2003, Uganda (2007 population, 30.9 million) began a programme in cooperation with the Schistosomiasis Control Initiative to control schistosomiasis and soil-transmitted helminthiases using praziquantel and albendazole. Uganda sought to build on its community-based onchocerciasis control programme, which has been implemented since 1992 in the western districts of the country where onchocerciasis is endemic. Soil-transmitted helminthiases are endemic throughout most of Uganda, and lymphatic lariasis is endemic in >40 of the country's 81 districts (MDA is under way in 24 districts); onchocerciasis is endemic in 22 districts (MDA under way in all); schistosomiasis is targeted in 60 districts (MDA under way in 40 districts); and trachoma is endemic in 24 districts (MDA under way in 7 districts). As in Nigeria, the combinations of MDA needed in different districts lead to a mosaic of treatment schedules, based on 1, 2 or 3 rounds of MDA delivered 1 or 2 weeks apart. The goal is to integrate delivery of interventions against lymphatic lariasis, onchocerciasis, schistosomiasis, soil-transmitted helmint-

(J. Umaru, données non publiées, 1992-1993, 2007, 2008) ont montré qu'il y avait une forte prévalence de la schistosomiase intestinale dans un échantillon de communautés qui ne remplissaient pas les conditions requises pour une AMD contre la schistosomiase urinaire, de sorte qu'il serait peut être plus ef cace d'effectuer une AMD dans toutes les communautés sans évaluation préalable (près de 50% des communautés remplissaient les conditions requises pour un traitement contre la schistosomiase urinaire et 25% de plus du fait de la présence d'une schistosomiase intestinale). Le soutien accordé par la Fondation Bill & Melinda Gates a permis au programme d'intégrer la fourniture d'interventions supplémentaires contre le trachome, la carence en vitamine A et le paludisme (grâce à la distribution de moustiquaires). Tout au long de l'année 2007, le programme a aidé à dispenser >18 millions de traitements contre la lariose lymphatique, 11 millions de traitements contre l'onchocercose, 1 million de traitements contre la schistosomiase et à distribuer >210 000 moustiquaires, le tout dans les diverses combinaisons qu'exigeaient les 30 zones administratives locales. Des effets importants ont été documentés contre les 3 helminthiases ciblées (A. Eigege, données non publiées, 2008).[4, 6]

L'OMS classe les maladies tropicales négligées dans 2 grandes catégories: celles contre lesquelles on peut lutter ef cacement au moyen d'une stratégie de chimiothérapie préventive (notamment la lariose lymphatique, l'onchocercose, la schistosomiase, les géohelminthiases et le trachome) et celles qui sont plus dif ciles à diagnostiquer et/ou à traiter (telles que la leishmaniose, la trypanosomiase humaine africaine et l'ulcère de Buruli). Un manuel préparé par l'OMS renferme des propositions relatives à l'AMD aux groupes à risques (par exemple, les enfants d'âge scolaire, les femmes et les femmes enceintes, les communautés) et aux moyens permettant d'avoir accès à chaque groupe (par exemple, écoles ou dispensaires prénatals).[7]

En 2003, l'Ouganda (30,9 millions d'habitants en 2007) entamait un programme en coopération avec l'Initiative de lutte contre la schistosomiase pour lutter contre cette maladie et contre les géohelminthiases au moyen du praziquantel et de l'albendazole. L'Ouganda a cherché à s'appuyer sur son programme à assise communautaire de lutte contre l'onchocercose, qui avait été mis en œuvre depuis 1992 dans les districts de l'ouest du pays où cette maladie est endémique. Les géohelminthiases sont endémiques dans presque tout le pays et la lariose lymphatique dans >40 des 81 districts (une AMD est en cours dans 24 districts); l'onchocercose est endémique dans 22 districts (une AMD est en cours dans tous); la schistosomiase est ciblée dans 60 districts (une AMD est en cours dans 40 d'entre eux) et le trachome est endémique dans 24 (une AMD est en cours dans 7). Comme au Nigéria, les combinaisons nécessaires pour les AMD dans les différents districts a conduit à une mosaïque de schémas thérapeutiques basés sur 1, 2 ou 3 campagnes d'AMD administrées à 1 ou 2 semaines d'intervalle. Le but est d'intégrer la fourniture des interventions contre la lariose

hiases and trachoma while extending coverage eventually to the entire population at risk from each of these neglected tropical diseases.

Throughout the tropics, there is broad co-endemicity among several neglected tropical diseases and malaria. As a result, there are complex and as yet unde ned immunological interactions between malaria and some intestinal helminths, which are confounded by nutritional and genetic differences in the affected populations. Infection with multiple helminths simultaneously with malaria is often associated with increased rates of anaemia. Distribution of insecticidal bednets to prevent malaria can greatly reduce transmission of *Wuchereria bancrofti* also. In turn, MDA for soil-transmitted helminthiases could aid in the control of malaria by reducing anaemia, improving birth weight and reducing maternal mortality. Community-based systems for delivering MDA for soil-transmitted helminthiases can also improve coverage of bednet delivery and home-based early diagnosis and treatment of malaria by leveraging improved access to communities. A Nigerian study of coimplementation of bednet distribution and MDA for lymphatic lariasis and onchocerciasis documented a 9-fold increase in bednet distribution to pregnant women.[8] An important logistic constraint, however, is the increased weight and volume of bednets when compared with the tablets for MDA (for example, 1 long-lasting bednet weighs as much as about 1200 Mectizan tablets).

It has been suggested that a concise de nition of integration would help clarify its meaning; for example, the goal of integration is to coordinate activities at country level in order to increase a programme's ef

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ble neglected tropical diseases (onchocerciasis, lymphatic lariasis, schistosomiasis, ascariasis, hookworm, trichuriasis, trachoma and dracunculiasis); integrated approaches also demonstrate the value of collaborating with the private sector as well as the potential impact on poverty and inequity. Dracunculiasis, onchocerciasis (in WHO's Region of the Americas) and lymphatic lariasis are targets for elimination or eradication of transmission, or both; other neglected tropical diseases are targets for control.

2. The task force strongly encourages advocacy on behalf of the use of integrated control strategies for neglected tropical diseases at the G8 summit later this year and, more generally, advocacy on behalf of an effort to teach the world's media about the bene ts and opportunities for controlling neglected tropical diseases.
3. There is a need to help national governments identify which combinations of interventions may be most cost effective. The task force underscored the complexity and challenges posed by assessment (mapping) to determine areas of distribution and levels of endemicity and the challenges of implementing different interventions simultaneously (these challenges include the need to decide on the optimal interventions, the timing of interventions, and channels for intervention, taking into account local epidemiology and capacity). Systems engineers and operational researchers could help identify solutions to these problems, including developing more local capacity for conducting operational research.
4. There are substantial opportunities for combining the integrated control of neglected tropical diseases with interventions besides MDA and health education. In particular, there are many missed opportunities for collaboration between malaria control programmes and control programmes for neglected tropical diseases; collaboration could be mutually bene cial. For example, delivering MDA and impregnated bednets simultaneously using a community-based approach may increase bednet coverage, reduce anaemia, reduce maternal mortality and reduce the prevalence of malaria; it might also increase early diagnosis of and treatment for malaria. The important complementarity of clean drinking-water and improved sanitation for control of some neglected tropical diseases should also be considered.

5. Countries and their partners may wish to consider the option of expanding campaign approaches, such as those that occur in measles partnerships among the American Red Cross, UNICEF, the United States Centers for Disease Control and Prevention and others, to deliver, for example, intermittent pulses of measles vaccine, vitamin A supplements, long-lasting impregnated bednets and MDA for helminthic infections.

6. External partners should be exible and encourage countries to consider using combinations of health

négligées les plus vulnérables (onchocercose, lariose lymphatique, schistosomiase, ascaridiose, ankylostomiase, trichocéphalose, trachome et dracunculose); ces approches intégrées ont également fait la preuve de l'intérêt d'une collaboration avec le secteur privé et de l'effet potentiel qu'elles peuvent avoir sur la pauvreté et les inégalités. La dracunculose, l'onchocercose (dans la Région OMS des Amériques)t les-

workers and community volunteers; of school-based and community-based outreach; of health-system strengthening, intersectoral collaboration and campaign approaches, as situations allow or require.

7. Laboratory research to develop better tools for diagnosing, controlling or eliminating neglected tropical diseases, such as a macro laricide for *Onchocerca volvulus*

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