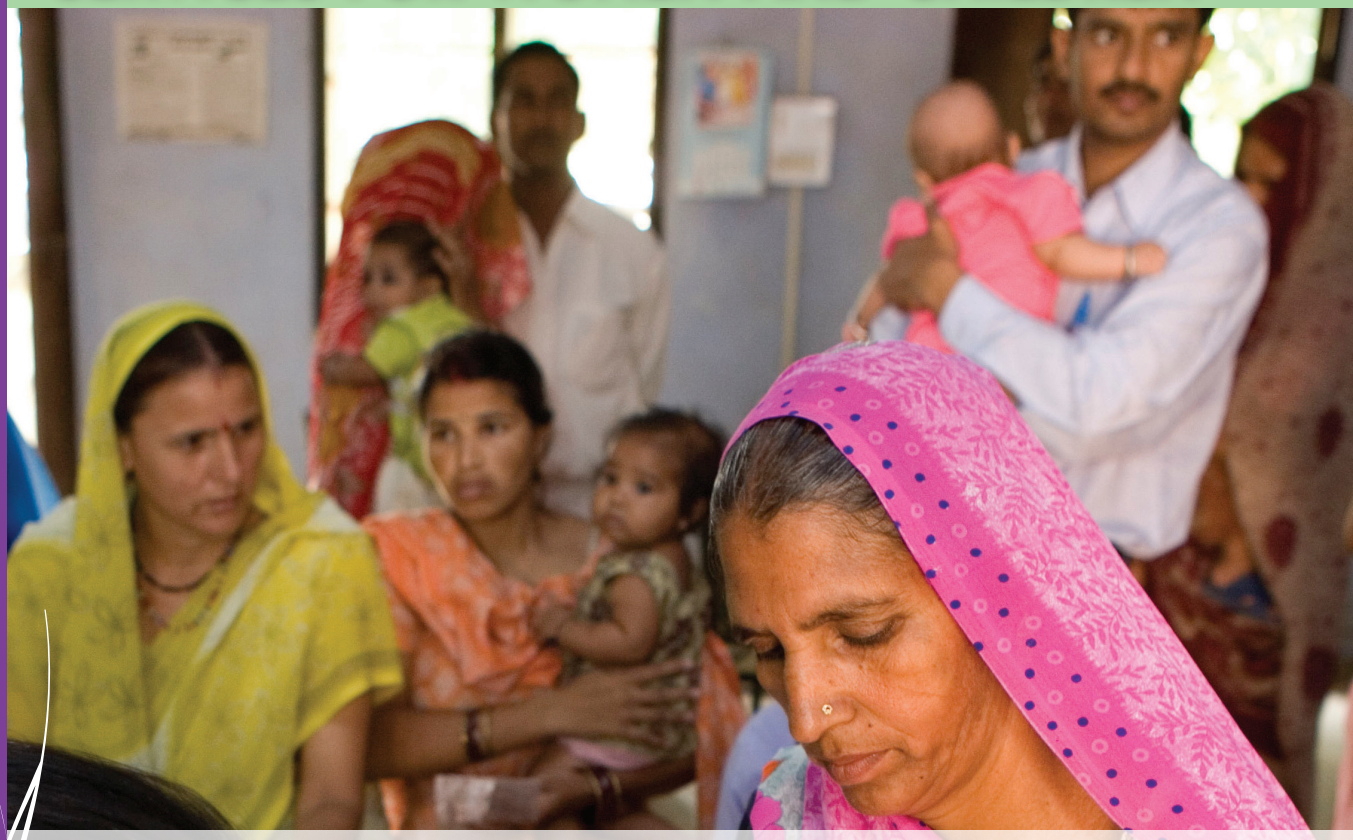
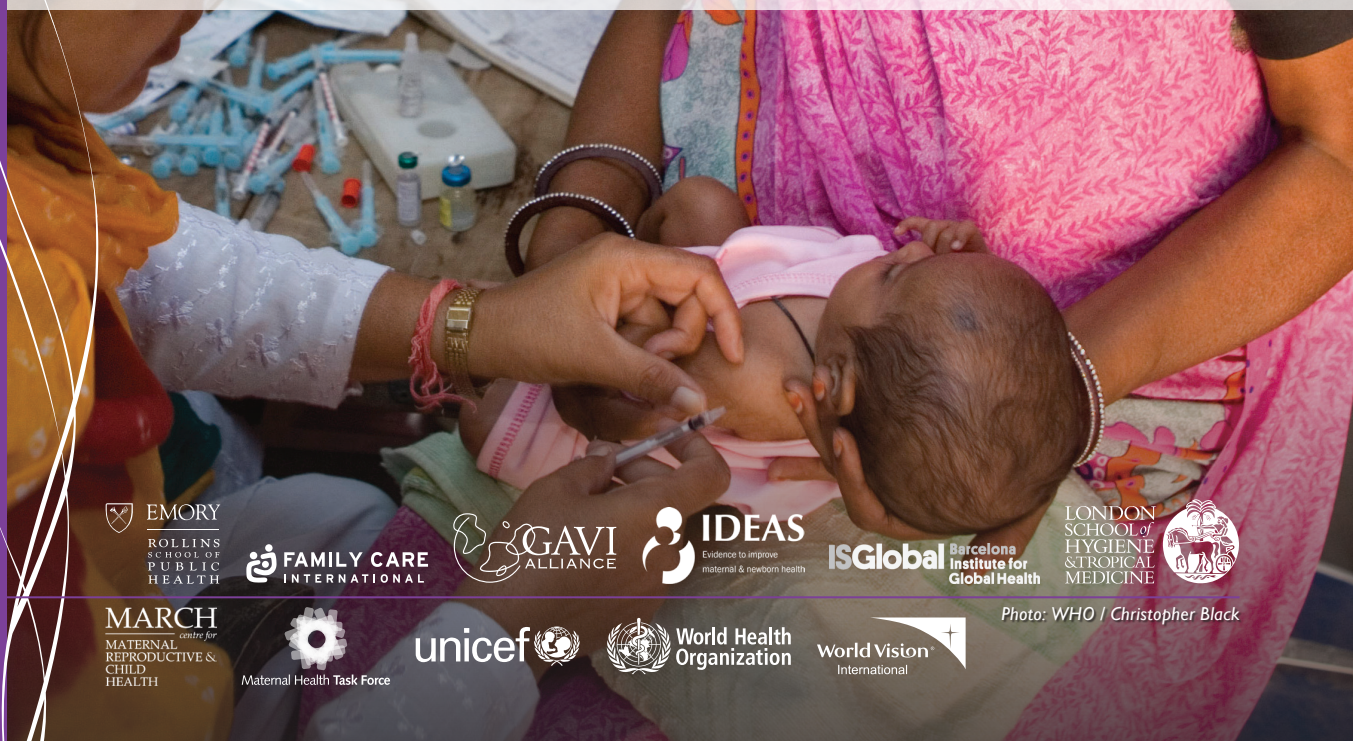
25 KNOWLEDGE SUMMARY: WOMEN'S & CHILDREN'S HEALTH

2013

INTEGRATING IMMUNIZATION AND OTHER SERVICES FOR WOMEN AND CHILDREN



The Expanded Program on Immunizations (EPI) has dramatically decreased childhood morbidity and mortality since its introduction in 1974, and now reaches over 85% of the world's children. Some countries and regions are still working to achieve high coverage, however, and many non-vaccine programs have not gained the same traction needed for maximum impact. Integrating service delivery, for example, health service providers could use the opportunity of immunizing a child to provide nutrition and family planning services for the parents, can provide a program foundation through which broad services can be equitably provided as well as give a beneficial boost to EPI coverage. While integration requires thoughtful and measured planning, the potential impact for families and communities is great.



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The Partnership for Maternal, Newborn & Child Health

EMORY ROLLINS SCHOOL OF PUBLIC HEALTH · FAMILY CARE INTERNATIONAL · GAVI ALLIANCE · IDEAS Evidence to improve maternal & newborn health · ISGlobal Barcelona Institute for Global Health · LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE · MARCH centre for MATERNAL REPRODUCTIVE & CHILD HEALTH · Maternal Health Task Force · unicef · World Health Organization · World Vision International

The Expanded Programme on Immunization (EPI) was established in 1974 to provide life-saving vaccines to the world's children. EPI now reaches more than 4 out of 5 of the world's children and, with its strong delivery platform, is becoming a sustained foundation for broader health interventions[1, 2]. The list of recommended vaccines has grown, and since 2000 the GAVI Alliance has helped low- and middle-income countries have greater access to new and underused vaccines, and prevent more than 5.5 million future deaths[3]. Looking forward, GAVI is proposing that 'the fully immunised child' be one of the indicators in the post 2015 agenda[4]. This would reset the ambition in immunisation, beyond DTP3 vaccine coverage, which has been a traditional measurement of a countries' health system capacity[4].

In the mid-1990s, the WHO and UNICEF created the guideline for Integrated Management of Childhood Illnesses (IMCI), recognizing the need to address the whole child, and the continuum of care, in combating childhood illness[5]. WHO and UNICEF developed the Global Immunization Vision and Strategy (GIVS), in 2005, to expand the reach of EPI, and prevent more disease[2]. In May 2012, the Global Vaccine Action Plan (GVAP) framework was endorsed at the World Health Assembly (WHA) to achieve the Decade of Vaccines' vision of delivering universal access to immunizations[1]. One of the six GVAP principles is integration, stating: "strong immunization systems, as part of broader health systems and closely coordinated with other primary health care delivery programmes, are essential for achieving immunization goals[1]." This promotes a strong immunization system as an integral part of a well-functioning health system, as well as the development of appropriate interventions for integration, to maximize the synergistic effects[1, 2].

Some terms explained

VACCINATION is the administration of a substance with the intention of stimulating an immune response, while **IMMUNIZATION** is the process through which protective immunity against disease is achieved in the human body. Though distinctly different, the two are often used interchangeably in references and literature.

The challenge

EPI has become one of the most successful public health programmes, reaching over 85% of the world's children. Other reproductive, maternal, neonatal and child health (RMNCH) interventions have not been scaled-up for maximum impact[6]. These other health concerns and interventions, including malnutrition and vitamin deficiencies, malaria, access to family planning, and early infant diagnostics for HIV, often lack effective or established delivery mechanisms[1, 7]. In many countries, populations are hard to reach, and have limited access to, or contact with, health services[8]. By integrating these other RMNCH interventions with EPI's strong delivery system, more mothers and children will receive these integrated health services.

EPI can also benefit from the integration of non-vaccine interventions. In some countries and regions EPI coverage remains low; twenty two million children, mostly living in the world's poorest countries, missed out on the three basic vaccinations during their first year of life in 2011[9]. And, vaccine preventable diseases, including pneumonia and diarrhoea, still contribute to significant mortality in children under 5 years[1, 9]. Integrated and comprehensive service delivery has the potential to generate demand, strengthen routine immunization services, and improve coverage.

What works

Some key reproductive, maternal, neonatal and child health (RMNCH) interventions can be integrated with immunization delivery to gain from the reach of EPI, providing broader health interventions through comprehensive approaches to health promotion and disease control, and improve vaccination coverage[10-13]. The most common delivery method is to build RMNCH interventions around the existing EPI schedule in a given country[13]. This allows health workers to clearly identify all the interventions to provide, including vaccinations, at each point of contact. Integrated programmes can also benefit from the better equity and smaller rich-poor gap seen in EPI as compared to other RMNCH programmes[6].

Alternatively, both immunizations and other well-baby care and MCH interventions can be provided collectively through vaccination campaigns, annual vaccination weeks or more frequent child health days[13, 14]. In Latin America, Vaccination Weeks have been extremely successful in targeting hard-to-reach groups, introducing new vaccines and improving coverage[14]. Many countries now use the opportunity to deliver other health interventions, such as vitamin A, long-lasting

insecticide treated nets (LLINs), folic acid, health education, and others[14]. In 2012 the first ever global vaccination week took place, which will continue annually in the last week of April, in all regions[15]. In Tanzania, Zambia, Madagascar and Zimbabwe, Child Health Days or Weeks have been integrated into the national health strategy to combat child mortality[16]. In these countries, growth monitoring, supplementary feeding, health education, vitamin supplementation and immunizations were all provided together in comprehensive child health campaigns[16]. As a result, nutritional status improved in the children involved and general gains were made for all included child health interventions, without any detrimental effects on vaccination coverage[16].

The recent global review by PMNCH identifies essential interventions key actions for the improvement of maternal and child health from pre-pregnancy to infancy[7]. Among them , there are eight childhood health interventions that can be directly linked to immunization services[7]. These include: exclusive breastfeeding for 6 months, continued breast feeding, prevention and management of malaria, vitamin A supplementation, management of malnutrition, management of pneumonia, management of diarrhoea, and care for children exposed to HIV[7]. Beyond these, there are a number of reproductive and maternal interventions such as nutrition counselling, family planning services and education, distribution of iron tablets for anaemia, and postnatal care, that could also be combined with immunization visits[7].

Case Study – Zambia Growth Monitoring Program Plus (GMP+)[22]

The Zambia Growth Monitoring Program Plus (GMP+) provided immunizations, Vitamin A supplementation, family planning, infection treatment, and health education to children and families in peri-urban areas of Lukasa, Zambia[22]. Through the integrated delivery approach, overall coverage and timeliness of vaccination improved[22]. Frequent attendance of GMP+ sessions played a direct role in improved vaccination coverage[22].

Below is a table describing health interventions that can be integrated with EPI delivery. The interventions are grouped into 5 broad categories with similar delivery needs and considerations. The table describes where each intervention can be provided along the continuum of care, and what vaccinations might integrate with service delivery.

Key Considerations - planning effectively:

Health system planning is essential for successful integration of health services and immunizations[13]. Adequate human resources and delivery systems need to be in place to support integrated approaches. Combining service delivery, through routine EPI or campaigns, has the potential to save costs and be mutually beneficial[19, 22]. However, the need for planning and forethought cannot be overlooked. Integration can add

Figure 1

Integration Delivery: Categories and Timing

Five broadcategories of MCH priority interventions that can be combined with Immunisations[17]

	Adolescence & pre-pregnancy	Pregnancy *(antenatal)*	Childbirth	Postnatal *(mother and neonatal)*	Infancy & childhood
Immunizations	**HPV**	**TT**	**Neonatal-BCG**		**DPT, OPV, Hib, PCV, Rota, Measles, etc**
Supplementation and Drugs as Prevention [13, 18, 19, 20]	The ease of integration depends on the recommended delivery schedules for each, and how efficiently they coordinate with existing EPI schedules.				
	▪ Access to family planning	▪ Intermittent Preventative Treatment in Pregnancy for Malaria (IPTp) ▪ Iron ▪ Folic acid ▪ Calcium	▪ Neonatal antiretrovirals for HIV exposure ▪ Access to family planning		▪ IntermittentPreventative Treatment in Infants for Malaria (IPTi) ▪ Seasonal Malaria Chemo-prevention (SMC) ▪ Vitamin A ▪ Nutritional supplements
Screening Tests [13, 21]	Screening allows health workers to look for and identify risks and/or symptoms of health concerns and direct families to follow-up and further treatment. These examinations can be tied to the EPI schedule, based on developmental milestones in early childhood.				
	▪ Vision	▪ HIV testing ▪ Syphilis testing			▪ EarlyInfant Diagnostics for HIV ▪ Hearingtest ▪ Mid-Upper Arm Circumfrence ▪ Growth monitoring
Health Education [7, 11, 18, 22]	Health Education can be provided to women and families through the EPI schedule.These interventions are less likely to require specific schedule times, based on EPI, but may have varying levels of difficulty in integration, due to stigma, sensitivity, andneed for confidentiality. Education interventions can be recommended within general guidelines of what to cover during EPI visits.				
	▪ Family planning education ▪ Sexual Health edu.				▪ Family planning education ▪ Breastfeeding education ▪ Nutrition counselling
Treatment [8, 11]	Health workers can identify specific symptoms and provide treatmentduring EPI schedule visits. Checking for common childhood illness can be standard practice in guidelines for every EPI visit as an opportunistic treatment strategy.				
			▪ Maternal anaemia		▪ Case management of malaria, pneumonia (antibiotics and/or oxygen), and diarrhoea (oral rehydration salts and zinc treatment)
Health-based Non-Monetary Incentives [13, 23]	Providing health-related commodities with immunizations visits can improve immunization coverage and address other public health concerns. With sufficient planning and distribution, these can be made available at health clinics on vaccination days, with the added benefit of increasing the attendance of mothers and children. Whenused as incentives, these programs should be planned carefully so as not to undermine good health seeking behaviour, but to improve health services overall.				
		▪ Long-lasting insecticide treated bed nets for malaria prevention	▪ Soap ▪ Hygiene kits		▪ Long-lasting insecticide treated bed nets for malaria prevention

to the daily work burden, and increase the training needed, for each health worker. The realities of service delivery, as well as supply chain and logistics, must be considered when designing integrated approaches[24]. With the proper preparations, integration can improve coverage, combine costs, and create synergies.

Case Study – HIV Services and Routine EPI in South Africa[21]

During routine EPI services in KwaZulu Natal, mothers were offered HIV screening for their infants. The screening test consisted of a dried blood spot heel prick from infants, first tested for HIV antibodies, to confirm maternal status, and if positive, then further tested through DNA PCR to identify the infants' status[21]. Ninety percent of mothers opted to have their children tested, and 57% returned for results[21]. Overwhelmingly, mothers were "comfortable" when asked if they would like HIV testing (78%), as compared to feeling anxious, frightened or shocked (1.5%, 4.5%, 3.5% respectively)[21]. The approach can only be used in the first 1-2 months of a child's life, when maternal antibodies are present, but served as an effective method for screening and identification of HIV in mothers and children, before 3 months of age, in places with high HIV prevalence[21].

Conclusion

The integration of immunization services and other RMNCH priority interventions, either through the standard EPI schedule, or child health campaigns and immunization weeks, can improve both immunization coverage and access to other health programmes[19, 22]. This approach can also streamline services, allowing health workers to provide comprehensive care to infants and families. The GVAP strategic objective 4 of integrating services can be implemented formally, with additions to the immunization schedule, or informally, through recommendations for care at vaccination visits[1]. Careful selection of the integration and addition of interventions, as well as close monitoring is warranted, so as not to overburden a weak system, and to identify and correct any unforeseen challenges that arise[13]. Finally, integration of services can make the most efficient use of scarce resources, such as health workers, and respects the burden on families associated with travelling to health facilities[2, 18].

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