More juice from the squeeze:  
Linking immunization services with other health interventions

The topic
As a basic health service that aims to make contact with 100% of children - and their caretakers - on at least five occasions in the first year of life, routine immunization has the potential to offer health benefits that extend beyond protection against vaccine-preventable diseases. Yet health statistics suggest that most programs may not have realized this potential:

- In one Sahelian country, only 35% of the population was reported as having access to health services, yet vaccination coverage for BCG (the first vaccine given) was 77%.
- In one east African country, almost 90% of infants receive three doses of DTP vaccine, yet the maternal mortality rate is one of the highest in the world.
- In another nearby country, a combination of routine immunization coverage rates over 90% and periodic mass measles campaigns have resulted in fewer than 100 cases of measles per year - yet only 10% of children in this malaria-endemic country sleep under insecticide-treated bednets.

This issue of SnapShots explores some aspects of integrating or "linking" vaccination services with other health services and interventions: what criteria must be met to make this effective, what is practical for program managers to do, and why it is in their interest.

New interest in an old idea
The notion of integrated primary health care is not new. The great progress with integrated management of childhood illness (IMCI) over the past 12 years is one example of an integrated approach. With IMCI, the point of entry is the sick child; by contrast, with immunization the target population is 100% of children born each year. Several recent developments have made the concept of linking immunization to other services a timely topic:

The Millennium Development Goals have served as an impetus for renewed progress toward improvements in child health, using whatever means possible. Goal Number Four states, “Reduce by two thirds the mortality rate of children under five.” Immunization is just one way to achieve this goal.

In order to spur improvements in child health, UNICEF has promoted the Accelerated Child Survival and Development (ACSD) approach, particularly in West Africa. ACSD uses periodic campaigns to reach children with a range of services, including immunization.

In the immunization community, WHO and UNICEF have jointly developed and adopted the Global Immunization Vision and Strategy (GIVS), which urges countries to link immunization with other life-saving interventions in order to accelerate a reduction in child mortality.
**Approaches for linking immunization with other health interventions**

Effective integration plays out differently in different circumstances. Integration of immunization with other interventions may entail:

- **integrated service delivery**
  example: immunization plus vitamin A for older infants and postpartum women during immunization contacts

- **immunization plus messages about another service**
  example: messages on birth spacing; nutritional counseling

- **immunization plus access to commodities**
  example: vouchers for insecticide-treated nets (ITNs)

- **integrated tools for managing services**
  examples: integrated child health card, integrated supervision checklist

Since the late 1990s, the most visible approach for linking immunization with other health interventions has been to add another service or services during mass vaccination campaigns. For example, it has become almost a standard practice to provide vitamin A supplements to children during national or subnational immunization days (NIDs/SNIDs) in support of polio eradication. Similarly, most mass measles campaigns conducted in recent years have included the distribution of insecticide-treated nets, or vouchers for them.

Although periodic mass campaigns have been successful in targeting and reaching enormous numbers of children and have conferred substantial benefits, they also have limitations. They are scheduled at irregular intervals, are very time-limited (usually just a few days in length), and entail extremely brief contacts between health workers and patients/community members. They also do not assume responsibility for follow-up actions — such as providing a second dose of vitamin A six months after the campaign or counseling parents on how to hang ITNs properly and make sure their children sleep under them every night.

Linking routine immunization contacts that occur on a daily basis to other child health interventions may confer certain advantages, including continuity, opportunities for follow-up and reinforcement, and increased capacity of health staff to treat patients in a comprehensive way.

**Continuum of Immunization Strategies**

<table>
<thead>
<tr>
<th>Routine</th>
<th>Campaigns</th>
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<tbody>
<tr>
<td>Fixed &amp; outreach, immunization only</td>
<td>Multi-antigen immunization campaigns + other interventions</td>
</tr>
<tr>
<td><strong>Fixed &amp; outreach, EPI + other interventions</strong></td>
<td><strong>Periodic campaigns to boost routine coverage</strong></td>
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<tr>
<td><strong>Pulse immunization</strong></td>
<td><strong>Single-antigen NIDs or SNIDs</strong></td>
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In reality, mass immunization campaigns and routine immunization services are not diametrically opposed as service delivery strategies. A broad continuum exists, as indicated in the figure above, ranging from vaccination-only services that are provided on a daily basis, to occasional mass campaigns whose purpose is to eliminate, eradicate, or control a particular disease. There are other service delivery strategies that fall somewhere between those extremes, and each has implications regarding the type and manner in which other health interventions may be added or included.
“Immunization Plus” - Plus what?

The routine immunization schedule recommended by WHO, and used in most countries in Africa and Asia, calls for vaccines to be administered at birth, 6 weeks, 10 weeks, 14 weeks, and 9 months. This imposes limits but still offers opportunities to provide other services. For example, programs can:

- Administer vitamin A to both the child and the postpartum mother, as well as other micronutrients for the mother, with exact target groups as specified by national policy; e.g., iron/folic acid.

- Provide simple messages about birth spacing for the mother at 6 weeks of age (the DTP1 contact); this is a point in time when she may be very receptive to such information. This approach increased the number of new contraceptive acceptors in Togo and Bangladesh, with no detrimental effect on immunization.

- Arrange for counseling of caretakers on appropriate child feeding practices or recognition of danger signs such as rapid breathing.

- Depending on national policy, provide antihelminthics for lactating mothers or infants.

- Pending further deliberations by WHO and other groups, provide intermittent preventive treatment for infants (IPTi) to protect against malaria.

- Provide a child vaccination card and counseling to the mother after she delivers in the maternity unit.

Health program managers must consider the characteristics and requirements of each intervention to be added to immunization contacts, as well as the health system context in which combined interventions are to be delivered. The criteria below may be of use in determining which other health services might be added to immunization sessions.

<table>
<thead>
<tr>
<th>Criteria to consider in linking interventions to immunization</th>
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<tr>
<td><strong>Related to the intervention</strong></td>
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<tr>
<td>• Has a similar target group as for routine vaccination</td>
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<tr>
<td>• Requires similar timing or frequency as routine vaccination</td>
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<tr>
<td>• Has similar logistical requirements</td>
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<tr>
<td>• Has similar level of acceptance among patients, communities, and health workers as immunization</td>
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<tr>
<td>• Entails a similar skill level among health workers</td>
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Conclusion

Immunization contacts can be used as a platform to provide other services and, as evidenced by recent mass vaccination campaigns, this approach can reach large numbers of children and women. It may well be worth investigating how routine and special immunization services can be coordinated and used to achieve multiple health objectives at the same time. To be successful, this approach requires a well-performing immunization system, high-level political commitment, a careful analysis of program needs, detailed planning, and conscientious supervision and monitoring. The rewards may well be worth the effort.

References

UN Millenium Development Goals:
http://www.un.org/millenniumgoals/

Accelerated child survival and development (ACSD):
http://www.unicef.org/health/index_childsurvival.html

Global Immunization Vision and Strategy (GIVS):
http://www.unicef.org/immunization/index_27089.html

“Immunization Plus”:
http://www.unicef.org/immunization/index_immunizationplus.html

Togo article:

Madagascar case study:

Child Health Weeks:
http://www.unicef.org/infobycountry/madagascar_37820.html

In our next issue...

What’s new about new vaccines?