Tailoring Immunization Programmes (TIP): Outputs of pilot implementation in Bulgaria
ABSTRACT

The Tailoring Immunization Programmes approach (TIP) aims to help national immunization programmes design targeted strategies to increase uptake of infant and child vaccination. TIP was pilot tested in Bulgaria in 2012, and the lessons learnt from this project were incorporated in the Guide to tailoring immunization programmes, published in 2013.

This supportive document presents the outputs of the pilot project in Bulgaria, in the form of three “custom solutions”: to strengthen the number, role, reach and ability of health mediators to serve vulnerable populations and support general practitioners (GPs); to increase the supply of accurate, trustworthy information on child vaccination and vaccine-preventable diseases on the internet targeted to caregivers; and to improve the quality of the health worker – caregiver encounter.

The aim of the document is to facilitate the sharing of experience and lessons learnt in Bulgaria with other countries considering implementation of the TIP approach.

Keywords
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ABBREVIATIONS

CDC United States Centers for Disease Control and Prevention
ECDC European Centre for Disease Prevention and Control
GP general practitioner
MCH maternal and child health
MOH Ministry of Health, Bulgaria
NIP national immunization programme
NHIF National Health Insurance Funds
NGO nongovernmental organization
OSI Open Society Institute
TIP Tailoring Immunization Programmes approach
UNICEF United Nations Children’s Fund
INTRODUCTION

The Tailoring Immunization Programmes approach (TIP) aims to help national immunization programmes design targeted strategies to increase uptake of infant and child vaccination, thereby increasing immunization coverage rates and curbing the risks of vaccine-preventable diseases. It provides adaptable tools and methodologies to

- identify and prioritize susceptible populations
- diagnose the demand and supply side barriers to vaccination
- design evidence-informed responses.

TIP was pilot tested in Bulgaria in 2012. The lessons learnt from this project were incorporated in the Guide to tailoring immunization programmes¹, published in 2013.

This supportive document presents the outputs of the pilot project in Bulgaria to facilitate the sharing of experience and lessons learnt in Bulgaria with other countries considering implementation of the TIP approach. A comprehensive project report has been submitted to the Bulgarian health authorities for their consideration.

OVERVIEW OF THE TIP PILOT IN BULGARIA

In February 2012, the WHO Regional Office for Europe requested permission to work alongside Bulgaria’s National Immunization Programme (NIP) to test the TIP approach and methods, as a method to diagnose reasons for unsatisfactory vaccination coverage among marginalized and vulnerable populations residing in Bulgaria.

Each step of the TIP guide was tested with the objectives of 1) improving the process with which the TIP guide would be implemented in other countries and 2) assessing the usefulness and effectiveness of the proposed TIP tools and research instruments. The pilot project in Bulgaria yielded important lessons that can facilitate implementation of the TIP guide in other settings.

TIP was applied to profile and target Roma populations and health care providers working within these underserved communities.

The process of pilot-testing TIP included:

- conducting a review of available information and knowledge on child immunization with key stakeholders in order to identify priority areas for research;
- applying formative research instruments to collect data for the TIP diagnostic framework within a small sample of caregivers from vulnerable communities and local general practitioners (GPs);
- generating and discussing recommendations of possible interventions with selected stakeholders to promote parental participation in infant and child vaccination within vulnerable populations.

The pilot involved a number of participatory workshops with stakeholders, key informant interviews, consultations and primary research. Stakeholders included representatives from the Department of Surveillance of Communicable Diseases and National Centre for Infectious and Parasitic Diseases of the Bulgarian Ministry of Health (MOH), National Health Insurance Funds (NHIF), United Nations Children’s Fund (UNICEF) Bulgarian and Roma nongovernment organizations (NGOs), including The Health of the Romany People, World Without Borders, Ethnic Minorities Health Problems Foundation, the Social and Health Development Foundation and the National Network of Health Mediators. Following a competitive bid, Open Society Institute (OSI) – Sofia was selected to implement and pilot-test the tools for conducting the primary quantitative and qualitative research that informs this report.

Based on the conducted research and stakeholder interviews, segmentation and profiling of subgroups and TIP behavioural determinant analysis, the following custom solutions were developed to address identified immunization gaps in the Roma population of Bulgaria.

**CUSTOM SOLUTIONS**

<table>
<thead>
<tr>
<th>TIP custom solution 1. Strengthen the number, role, reach and ability of health mediators to serve vulnerable populations and support general practitioners (GPs)</th>
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<tbody>
<tr>
<td><strong>Health problem</strong></td>
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</tbody>
</table>
| **Potential primary audience** | • Health mediators, who act as gatekeepers to caregivers for vaccination communication, education, reminders and access to services.  
• Caregivers/parents of partially vaccinated children aged 3 years and below. (National stakeholders indicate that there are delays in completing scheduled vaccinations and that there may be a risk of drop-out of the vaccination schedule after 12 months.) |
| **Key challenges** | **For caregivers**  
• High opportunity costs associated with repeated visits to GPs.  
• GP visits are rapid, and caregivers feel awkward, resulting in little room for caregivers to ask the questions they would like to.  
• Poor understanding of infant and child vaccination schedule.  
• Children are frequently ill, meaning that GP visits are often initiated for reasons other than vaccination and vaccination at the time of the visit may be postponed.  
• Absence of documentation and registration with the NHIF and migration.  
• Mediators often do not have answers to immunization-related questions posed by the community. |
### For GPs
- Lack of GPs despite a high demand for services from the community, which results in intense workload and rapid consultations.
- Competing priorities for GP time and attention in their practices.
- GPs lack the time and skills to ensure clear and comprehensive communication of vaccination information to vulnerable caregivers.
- GPs are expected to provide reminders for vaccination.
- Low perceived financial compensation for vaccination and their work in general.
- Need for more community-level support and mediation, and ties to mobile and outreach services.

### Opportunities
- Caregivers want to provide for and protect their children.
- There is a high level of trust in health workers: GPs, the nurses they work with and health mediators.
- Compliance with GP recommendations is high.
- The need for intercultural mediation is recognized, and caregivers’ trust in health mediators is high.
- Vaccination reminders increase the likelihood of timely vaccination.
- Recent measles outbreaks raised consciousness of the threat and severity of this disease in many vulnerable communities.
- There is ample opportunity to improve vaccination communications through targeted interpersonal and community-level communications.
- There is a high level of MOH support and political will to improve child vaccination uptake.
- There is a high level of MOH support for the health mediation programme.

### Strategic solution
- Increase the number of health mediators and strengthen their role in promoting timely participation of all vulnerable children in scheduled vaccination.
- Upgrade the training and responsibilities of health mediators to strengthen the role they play in facilitating timely and complete child vaccination;
- Train more health mediators to serve vulnerable communities.

### Strategic activities

#### a. Identify and share best practices in health mediation in the context of child vaccination promotion
- Use health mediator internet platform to identify best practices.
- Organize regional level workshops to identify and share best practices.
- Disseminate information on best practices.

#### b. Upgrade the maternal and child health (MCH) and immunization training of health mediators
- Provide more hours in the current curriculum of health mediators in the field of MCH, child immunization and communicable diseases and in counselling/interpersonal communications.
- Engage health mediator education institutions and adapt curricula.
- Involve local GPs in the health mediator training programme and encourage them to work closely with health mediators to strengthen their MCH and child vaccination services.
c. Provide continuing education to existing health mediators
   • Upgrade the training for a number of Roma health mediators to conduct
     community outreach and education, and to improve interpersonal
     communication skills.

d. Develop and disseminate job aids for use by mediators (and nurses
   when they work with GPs to serve vulnerable communities)
   • Assess training and communications resources provided to health
     mediators at the time of training.
   • Develop and disseminate reminder posters, postcards, calendars, recall
     aids for use by mediators and community nurses.
   • Develop a standard flip-chart (including vaccination calendar, information
     on vaccine-preventable diseases and the benefits and value of vaccination)
     to guide ‘health-talks’ with individuals or groups of caregivers in the
     community.
   • Design a standard module/plan for holding a community ‘health-talk’.

e. Promote municipal-level relationships and collaboration to improve
   local coordination between health mediators, social workers, GPs,
   mayors and regional health inspectorates
   • Initiate exchanges with concerned ministries, other institutions and
     organizations (including Social Welfare, Health and National Association
     of Municipalities in the Republic of Bulgaria) to engage in a partnership to
     improve coordination at a municipal level.
   • Organize regional workshops to improve coordination of social welfare
     and health mediation activities. Involve mayors and representation of other
     local stakeholders.
   • Collect and disseminate best practices observed at the municipal level.

Promising practices, resources1
   • Roma health mediators. Successes and challenges. Open Society
     Foundation. October 2011 (http://www.opensocietyfoundations.org/
     reports roma-health-mediators-successes-and-challenges).
   • Hungarian experience, National Center for Epidemiology and Association
     of Hungarian Primary Care Paediatricians, 2012 (http://ecdc.europa.eu/
     pdf).
   • Programme for the Roma community in Poland, Ministry of Administration
     Poland-Programme-for-Roma-community.pdf).
   • A guide to immunization for First Nations parents and caregivers (National
     Canadian Immunization Programme). Job aids and information materials
     (http://www.hc-sc.gc.ca/fniha-spnia/famil/immun-vaccin/immun-vaccin-
     fn-pn-eng.php).
   • Optimizing health worker roles for maternal and newborn health.
     WHO recommendations (http://www.who.int/pmnch/media/
     news/2012/20121207_optimizing_health_worker_roles/en/).
   • CoreGroup. Advancing community health worldwide (www.coregroup.org).

1 All links in this document were accessed 15 October 2014.
<table>
<thead>
<tr>
<th>Potential partners</th>
<th>MOH/MCH, OSI, UNICEF, WHO, medical professional organizations (GP, nursing, health mediators), Roma NGOs, medical schools and institutes.</th>
</tr>
</thead>
</table>
| Policy considerations | • Professional standards and job descriptions for health mediators  
• Cross-sectoral collaboration and funding. |
| Financial (funding and budget) considerations | • Formative research.  
• Best practices identification, collection, publication and dissemination.  
• Advocacy and policy buy-in.  
• Workshops.  
• Development of job aids and educational/communications materials.  
• Training and supervision. |

**TIP Custom solution 2.**

**Increase the supply of accurate, trustworthy information on child vaccination and vaccine-preventable diseases on the internet targeted to caregivers**

<table>
<thead>
<tr>
<th>Health problem</th>
<th>Under-vaccination for childhood diseases among vulnerable pockets of the Bulgarian population, evidenced by the 2009–2011 measles outbreak.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential primary audience</td>
<td>All caregivers/parents in Bulgaria who currently or may in future use the internet to seek health advice or information. Research shows that internet use is emerging as a channel for health information, including among vulnerable communities.</td>
</tr>
</tbody>
</table>
| Key challenges | **For caregivers**  
• There is poor understanding of the infant and child vaccination schedule and the benefits of vaccination.  
• It is difficult to get reliable health information unless it is from a GP or health worker; not all GPs and health workers are capable or motivated to provide vaccination information; and there are high opportunity costs associated with repeated visits to GPs.  
• It is reported that official Internet pages of MOH do not convey enough information on immunization and disease prevention.  

**For GPs**  
• GPs lack the time and skills to ensure clear and complete communication of vaccination information to vulnerable caregivers.  
• Caregivers expect GPs to provide reminders for vaccination. |
Opportunities

• Caregivers want to provide for and protect their children.
• Internet use is growing in vulnerable communities, with 42% of caregivers stating that they have used internet to seek health advice.
• GPs believe that availability of better and more tailored information on the internet would encourage vaccination.
• Vaccination reminders increase the likelihood of timely vaccination – reminders could easily be provided for all internet users.
• Recent measles outbreaks raised consciousness of the threat and severity of this disease in many vulnerable communities.
• There is a high level of MOH support and political will in Bulgaria to improve child vaccination uptake.

Strategic solution

Improve caregivers’ access to, comprehension and use of information relating to vaccine-preventable diseases, the national immunization schedule and the risks and benefits of vaccination on the internet.

Strategic activities

Preliminary activities

• Review the websites with vaccination information managed at a regional level.
• Undertake a brief review of the internet pages and sites most regularly used by internet users within vulnerable communities before engaging in the activities listed below.
• Assess the key search criteria of internet users from vulnerable communities and ensure that web information responds to caregivers’ typical areas of concern.
• Make sure there are resources to maintain website.

f. Upgrade the regional vaccination- and immunization-related sites and pages, as well as those developed for health mediators

• Provide simple fact sheets and information for parents on these websites; improve navigation to and usability of the pages that carry information on immunization.
• Ensure that these pages also contain comprehensive information on vaccine-preventable diseases, including on how they are contracted, their severity and how infection can be prevented.
• Create pages for GPs, other medical professionals and health mediators containing fact sheets, job aids, information cards, flip charts and guidelines that focus on addressing the needs of vulnerable communities and that support GPs and health mediators with outreach and the vaccination encounter. See for example the European Centre for Disease Prevention and Control (ECDC) “Let’s talk about protection” page: http://ecdc.europa.eu/en/healthtopics/immunisation/comms-aid/Pages/protection.aspx
• Ensure that all these pages are culturally appropriate and that communication materials are available in Bulgarian and other languages spoken within vulnerable communities (Romani and Turkish, for example).
g. Help GPs and local clinics launch their own websites
   • Provide a standard web page template and technical assistance to GPs who wish to establish their own websites.
   • Provide these GPs with a standard package of information and materials on maternal and child health in Bulgarian and other relevant languages (including information and fact sheets on immunization) with links to other reliable sources of information.

h. Provide a short handout listing trustworthy sites and links for distribution in vulnerable communities
   • Develop a simple-to-use card, which could be disseminated through community leaders and local organizations, that directs caregivers to sites and pages that convey trustworthy, accurate information on immunization and health care.

Promising practices, resources
   • Example of portal for parents with various resources about vaccination http://www.cdc.gov/vaccines/vac-gen/why.htm
   • Example of an information sheet targeting a specific concern (e.g. thiomersal in vaccines). http://www.who.int/immunization/newsroom/updated_facts_and_figures_mercury_treaty.pdf
   • Example list of ‘good information practice’ web resources in various languages http://www.who.int/vaccine_safety/initiative/communication/network/approved_vaccine_safety_website/en/
   • Example of a fact sheet for a specific disease in a specific country (e.g. rotavirus in Ghana) http://www.path.org/publications/files/VAD_rotavirus_ghana_fs.pdf
   • Example of information page for parents with multiethnic images and list of other trusted resources http://www.vaccinateyourbaby.org/why/

Partners
   WHO, UNICEF, internet providers in local areas, local GPs.
**Policy considerations**

- In current primary health care, GPs do not have sufficient time to ensure communication of immunization information to vulnerable caregivers.
- For parents who do not have access to internet, could this be provided at GP offices?
- Copyright of developed materials.
- School-entry policies: could communication materials be distributed as part of school enrolment?
- Role of health mediators: can they be used to disseminate materials, encourage use of internet information?
- Inclusiveness: the general look and feel of regional websites (or Ministry communication in general?) is currently not welcoming to Roma users.

**Financial considerations**

Technical assistance costs to:

- conduct formative internet media research;
- review and revise MOH and National Institute of Public Health websites;
- develop an information package for GPs, including key materials to be posted on their websites;
- develop, translate and print the ‘trustworthy site’ information card.

**TIP Strategic Solution 3. Improve the quality of the health worker – caregiver encounter**

**Health problem**

Under-vaccination for childhood diseases among vulnerable pockets of the Bulgarian population, evidenced by the 2009–2011 measles outbreak.

**Primary audience**

Health professionals involved in the provision of child vaccination services: medical specialists, GPs, health mediators and professionals (epidemiologists) from the Regional Health Inspectorates.

**Key challenges**

For caregivers, there are gaps in the quality of services and information.

- Caregivers have a generally poor understanding of infant and child vaccinations, the national schedule and benefits of vaccination.
- Caregivers need more information on what to do if the child feels ill after vaccination, the possible side-effects, the risks of not vaccinating, the vaccination procedure and the routine vaccination schedule.
- Most caregivers feel awkward asking the GP questions, do not have enough time, or do not know what to ask.
- They feel that GPs do not take the time to provide vaccination services: they are concerned about quick visits and painful injections.
- It is difficult to get reliable health information unless it is from a GP or health worker.
- Caregivers expect GPs to provide reminders for vaccination.
For GPs

- The majority of GPs are not from vulnerable communities.
- GPs are overworked and experience competing priorities in their practices.
- GPs lack the time and skills to ensure clear and complete communication of vaccination information to vulnerable caregivers.
- Not all GPs and health workers are capable or motivated to provide vaccination information; and GPs have little time to spare at the time of consultations.
- GPs feel undercompensated and unrewarded for the efforts they make.
- GPs perceive that vulnerable communities have a low health culture, which leads to mistrust and assumptions regarding their information needs.
- GPs may not be aware of the level of trust caregivers from vulnerable communities have in them.
- Use of contraindications – real or perceived – lead GPs and caregivers to postpone vaccination and to missed opportunities.

Opportunities

- Caregivers want to provide for and protect their children, and many view vaccination as a necessary practice to do this.
- Caregivers trust GPs and comply with their recommendations.
- Vaccination reminders increase the likelihood of timely vaccination.
- GPs and caregivers see vaccination as important. Recent measles outbreaks raised awareness of the threat and severity of this disease in many vulnerable communities.
- The health mediator programme provides a tangible and positive way to support GP vaccination services, and complements them by providing vaccination communications and counselling.
- There is a high level of MOH support and political will in Bulgaria to improve child vaccination uptake.

Strategic solution

Improve vaccination providers’ and health mediators’ ability to communicate with caregivers from vulnerable communities regarding infant and child vaccination.

Strategic activities

Preliminary activities

Use TIP formative findings to develop clear training and communications objectives.

i. Raise awareness among GPs and other health professionals of the need to decrease missed opportunities for child vaccination and increase culturally-appropriate and complete communications for caregivers from vulnerable communities.

- Share TIP and other research findings with GPs and other medical professionals.
- Disseminate a letter from the MOH to support this initiative nationwide.
- Involve GP and other professional associations in the development of new curricula.
j. **Provide continuing education credits that support improvements in the quality of child vaccination service delivery in vulnerable communities across all medical professionals in the areas of 1) vaccination of the frequently sick child and 2) culturally appropriate and complete vaccination communications.**
   - Develop curricula.
   - Make available in the post-graduate continuing education programme.
   - Work with NGOs, such as Academia for Vaccination Prophylaxis, to provide additional training to vaccinations providers.
   - Deliver training through NGOs, such as Academia for Vaccination Prophylaxis and National Association of Health Mediators, to provide additional training to vaccination providers.

k. **Create and/or disseminate job aids and education materials to support these improved professional practices.**
   - Develop and disseminate reminder posters, postcards, immunization calendars, recall aids for use by GPs and other medical professionals to support their practices.

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<thead>
<tr>
<th>Promising practices, resources</th>
<th>In addition to the resources provided in Custom solution 2:</th>
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<tbody>
<tr>
<td></td>
<td>Roter, D, Hall, J. Doctors talking with patients / parents talking with doctors: improving communication in medical visits , Greenwood Publishing Group, 2006</td>
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<tr>
<th>Policy considerations</th>
<th>Introduction of new curriculum to the medical continuing education programme. Involvement of national-level educational and professional institutions.</th>
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<tr>
<th>Financial considerations</th>
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<tbody>
<tr>
<td></td>
<td>• assist MOH with development of curriculum</td>
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<td></td>
<td>• offer training and support</td>
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<td>• develop and disseminate supportive materials.</td>
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