Introduction

WHO/IVB and two independent consultants, Ann Levin and Winthrop Morgan, conducted a workshop at WHO on the C4P tool on December 6 and 7, 2011 at the Chateau de Penthes in Geneva. The objective of the workshop was 1) to provide participants with the opportunity to engage in hands-on testing of the initial version, and provide feedback and input into the final development of the release candidate of the C4P tool; and 2) to gain insight from stakeholders about the appropriateness and potential applicability of the C4P tool in relation to existing needs, tools, and models in the field.

The participants were a mixture of 1) mediators (i.e. international consultants, technical assistants, trainers) of costing and planning activities, 2) supervisors, sponsors, and managers of costing and planning activities (e.g. WHO regional officers, PAHO ProVac project members); and 3) developers of costing and planning tools. In all, nineteen persons participated in addition to the three facilitators/organizers and a list of these persons is found in Appendix 1.

Workshop Activities

Day 1: HPV Vaccine Introduction Component

The first day of the workshop focused on the HPV vaccine introduction component of the tool. In the morning’s presentations focused on background for the C4P tool. Raymond Hutubessy presented on the objectives of the workshop and the history of the C4P tool. Susan Wang presented on the status of the global vaccine introduction in countries, WHO policies on HPV vaccine and vaccine donations, and GAVI decision to provide support for the vaccine. Ann Levin presented on the costing methods and assumptions made in the C4P tool for the vaccine introduction component.

After the coffee break, Winthrop Morgan gave an overview of the C4P tool. He presented the tool’s outputs including intermediate outputs (e.g. number of trainings conducted each year, number of radio spots conducted each year), total costs by category and average costs (cost per dose with and w/out vaccine, cost per fully immunized girl). He also described the inputs that are required for the tool.

During the afternoon, the participants were given a group exercise that simulated the use of the C4P tool to estimate the costs of introducing the HPV vaccine. They were divided into groups of three persons, each group had a computer with a pre-loaded version of a beta version of the C4P tool, and
was given instructions for the exercise. After the exercise, the groups gave feedback on their experiences.

**Day 2. Screening and Treatment Component**

The second day of the workshop focused on the screening and treatment component of the C4P tool. Nathalie Broutet presented the different types of screening tests, diagnostic tests, and treatment, WHO guidelines on cervical cancer control, and the status of screening and treatment activities in different countries. Then Ann Levin presented on the costing methods and assumptions made in the tool.

After the coffee break, Winthrop Morgan talked about the outputs and inputs for the C4P tool. He then presented the tool that was developed specifically for Tanzania. In the Tanzanian specific tool, costs were projected assuming that the country would use visual inspection with acetic acid (VIA) for screening, cryotherapy and LEEP for treatment of precancerous lesions, and chemotherapy, radiotherapy and palliative care for treatment of invasive cancer. The tool also estimates other program costs such as training, social mobilization and IEC, monitoring and evaluation, and supervision. Winthrop Morgan also demonstrated the use of the beta version of the generic tool for screening and treatment.

**Future plans and participant Feedback on the C4P Tool**

Raymond Hutubessy shared future plans regarding the further development of the beta C4P tool versions, the establishment of a Cx Ca costing network and potential country use of the C4P tool in the context of GAVIs’ request for HPV vaccine demonstration projects and the international roll out of PAHO’s ProVac study.

At the end of the day, the participants summarized their feedback on the C4P tool and its applications as well as discussed their future potential involvement with the tool.

**Discussion**

**Vaccine Introduction Tool**

All participants felt that the vaccine introduction of the tool was well-done and could be easily finalized. The developers in the group said that the architecture of the tool was logical and well-designed. The general impression of the participants was that, with a few modifications, the vaccine component of the tool could easily be finalized and be ready for use.

The participants had some suggestions for the tool and these were the following:

1. Indicate the number of micro-plans that are completed.
2. Change ‘results’ to outputs or ‘intermediate outputs.’

3. Move results/outputs to be next to costs in the summary page.

4. Allow additional costs (sub) items to be added.

5. Rather than cost per dose, say cost per dose ‘delivered’ to be clearer to user.

6. Add ‘cost per capita’ since would be better understood by Ministry of Finance.

7. May be useful to have a range of values for some variables rather than one point – e.g. coverage.

8. To estimate size of target population, could enter data for the first year and growth rate so that could auto-populate for other years.

9. To estimate additional costs of the cold chain, use one of the existing tools already created such as the one for the comprehensive Multi Year Plan (cMYP) or Costing template for analysis of logistics cost of national immunization program (NIP) for the WHO OPTIMIZE/PATH project.

10. The relationship between the cMYP and C4P should be clarified. Also, consider whether costs should be presented as immunization-specific costs and health system shared costs as in the case of the cMYP.

**Screening and Treatment Tool**

The general impression of the participants regarding the screening and treatment component of the tool was that it is a more complex set of services than the vaccine introduction component. They felt that the tool’s purpose needs to be clarified to assist potential users. That is, they wanted to know whether the purpose is to cost out the existing program or whether it would project the costs of new strategies; also, should the tool estimate the costs of an ideal program or an actual program with resource constraints? Should it only cost out strategies advocated by the WHO Guidelines or should it be used to cost any algorithm that a country is using or would like to use?

The tool currently allows for cost estimates of three tools for screening – VIA, cytology and HPV DNA. Showing three options for testing is deceptive since only two of these types of screening (VIA and cytology) are widely used in low and middle-income countries. The HPV DNA tool is not widely used due to its high cost. However, it is likely to be employed more often in the future since a new low cost form of this test, the Care HPV test, is being piloted now and will be available within the next few years.

The tool has several different WHO algorithms for screening and treatment. It has a diagnostic test that is used when a cytology test comes back positive. Cryotherapy is only used with VIA. There are also different types of treatment used for the treatment of precancerous lesions and invasive cancer.
Because of the potential for countries to implement several different algorithms, the tool will need to allow for considerable flexibility in choices.

The participants felt that the screening and treatment tool needed some more work before finalizing. Specifically they suggested the following changes:

1. The purpose of the tool should be clarified.
2. It should also be clear which algorithms could be costed with the tool.
3. Showing the detailed costs is confusing to the user. The cost per procedure should be shown as well as total costs and detailed costs should be shown in separate plug-ins.
4. The tool should have a similar architecture to the vaccine introduction tool. That is, it should show the summary costs for each cost component (e.g. cost per procedure) and have the detailed costs on separate worksheets.
5. It should be clear that other program costs such as training and supervision are in the model.
6. The tool may not need to disaggregate costs to the regional level but instead may only need to disaggregate to rural/urban areas or zonal areas.
7. Rather than developing further a generic version of the screening and treatment cost component, guidance should instead be given on how to cost screening and treatment programs using a modular based C4P tool.

**General Comments**

During the feedback session the majority of the participants expressed interest to be involved in the further development of the C4P tool and/or in assisting WHO in disseminating the tool at country and/or regional level.

The participants also had some general comments for the C4P tool:

1. All types of costs should be defined in the user manual – e.g. shared costs – so that it is clear what costs are being estimated.
2. The tool should present results so that these could be used in cost-effectiveness analyses including the categorization of cost-drivers.
3. A worksheet should be included on the costs of initial investments required to start up the program to assist program planners.
4. Each empty worksheet should have a label ‘needs work.’

5. The tool may need to allow for more tiers/levels of administrative levels and regions or provinces.

6. It may make sense to prioritize types of data that are needed so as to minimize data requirements; identify cost drivers and focus on these rather than less important costs.

7. Not only EPI managers should be involved but also reproductive health and/or cervical cancer representatives should attend future C4P tools.

Appendix 1. List of Participants

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