Appendix B

Cambodia VACCINE SUPPORT

This Decision Letter sets out the Programme Terms of a Programme.

1. **Country:** Cambodia
2. **Grant Number:** 15-KHM-12c-X / 15-KHM-08c-Y
3. **Date of Decision Letter:** 20 March 2014
4. **Date of the Partnership Framework Agreement:** 6 November 2013
5. **Programme Title:** New Vaccine Support (NVS)
6. **Vaccine type:** Pneumococcal
7. **Requested product presentation and formulation of vaccine:** Pneumococcal (PCV13), 1 dose(s) per vial , LIQUID
8. **Programme Duration**[1]**:** 2015
9. **Programme Budget (indicative) (subject to the terms of the Partnership Framework Agreement):**

	2015	Total[2]
Programme Budget (US$)	US$6,782,000	US$6,782,000

10. **Vaccine Introduction Grant:** US$275,500 payable six months before the introduction date.
11. **Indicative Annual Amounts (subject to the terms of the Partnership Framework Agreement):**

Type of supplies to be purchased with GAVI funds in each year	2015
Number of Pneumococcal vaccines doses	1,227,600
Number of AD syringes	1,375,800
Number of safety boxes	15,275
Annual Amounts (US$)	US$ 6,782,000

[1] This is the entire duration of the programme.
[2] This is the total amount endorsed by GAVI for the entire duration of the programme. This should be equal to the total of all sums in the table.

12. **Self-procurement:** Not applicable

13. **Procurement agency:** UNICEF. The Country shall release its Co-Financing Payments each year to UNICEF

14. **Co-financing obligations: Reference code:** 15-KHM-12c-X-C According to the Co-Financing Policy, the Country falls within the Low Income group. The following table summarises the Co-Financing Payment(s) and quantity of supply that will be procured with such funds in the relevant year.

Type of supplies to be purchased with Country funds in each year	2015
Number of vaccine doses	73,800
Number of AD syringes	0
Number of safety boxes	0
Value of vaccine doses (US$)	US$24,5,548
Total Co-Financing Payments (US$) (including freight)	US$260,500

15. **Operational support for campaigns:** Not applicable.

16. **Additional documents to be delivered for future disbursements:**

Reports, documents and other deliverables	Due dates
Progress Report	15 May 2016

17. **Financial Clarifications:** Not applicable.

18. **Other conditions:** Not applicable.

Signed by,
On behalf of the GAVI Alliance

on behalf
Hind Khatib-Othman
Managing Director, Country Programmes
20 March 2014

Appendix C

NEW PROPOSALS IRC COUNTRY REPORT

GAVI Secretariat, Geneva, 7 – 22 November 2013

Country: Cambodia

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1. Type of support requested

Type of support requested	Planned start date *(Month, Year)*	Duration of support	Vaccine presentation(s) *(1st and 2nd choice, if applicable)*
Pneumococcal	Jan 2015	One year	PCV13 (single dose vial)

2. In-country governance mechanisms (ICC/HSCC)

Cambodia has a stand-alone interagency coordinating committee called the Technical Working Group for Health (TWGH), which appears active and robust and has a broad, integrative mandate to oversee the health sector as a whole. Minutes from quarterly meetings of the TWGH reflect in-depth presentation and discussion of a variety of topics, including immunisation (discussed at Dec 2012, Apr 2013, Jul 2013, Aug 2013 meetings). Signature page for GAVI proposal submission reflects membership from a variety of governmental agencies (MoH, National Malaria Centre, Ministry of Economy & Finance, National Institute of Public Health) and numerous bilateral (JICA, German Embassy, KOFIH, AusAID, CDC) and multilateral (UNFPA, WHO, WB) agencies. One mention was made of an external CSO, LDSC (LDS Charities), as being a possible source of support for immunisation-related activities, but notably absent was any mention of or representatives from Cambodian civil society organisations.

The PCV proposal was approved at a meeting on 8th August 2013. There was a good discussion about the need for cold chain expansion and options for how to secure the necessary funds for this. JICA has historically been the main funder of cold chain equipment in the country.

There is no NITAG in Cambodia.

3. Situation analysis (burden of disease and health system bottlenecks)

WHO estimates for pneumococcal disease are referred to, indicating that there are no local data on disease burden. Pneumonia is estimated to account for 16-20% of deaths in children under the age of five in Cambodia. Based on the 2000 WHO estimate, there are about 67,500 cases of invasive pneumococcal disease and 3,786 deaths in Cambodia annually. The vaccine – taking into account serotype coverage, vaccine coverage, and effectiveness – would decrease this burden by an estimated 61%. There is thus ample justification on the grounds of disease burden for introducing PCV.

High vaccination coverage levels have been achieved during the past decade. There were many achievements in the programme in 2012. Cambodia has successfully introduced quadrivalent (2001) and pentavalent (2010) into routine vaccination, and received GAVI support for a measles/rubella campaign this year (2013). Routine DTP3 coverage is high (> 90%), and the target for PCV3 coverage is realistically aligned with that. While previous vaccine introductions are described, there is no explicit discussion of lessons learnt and actions planned in response; this section of the proposal (Section 5.1.1) is blank.

4. Overview of national health documents

National Strategic Development Plan	2008 – 2015
Health Strategic Plan (HSP2)	2008 - 2015
cMYP	2008 – 2015 (updated May 2013)

cMYP updates/addenda:

- April 2010: Inclusion of measles 2nd dose (from June 2012)
- May 2012: Inclusions of MR vaccine into the routine schedule and undertaking MR campaign in 2013
- 2013: PCV introduction in 2015.

The cMYP provides a good situational analysis on the status of the national immunisation programme (NIP). The proposal for new vaccine introduction is aligned with the amended version of the cMYP. Of note, the NIP is to be commended on the tremendous progress it has made since 2000 – for example, increasing the proportion of districts with adequate cold chain equipment from 18% to 100%, and with waste management systems from 5% to 100%.

Linkages between the cMYP and broader health sector planning are addressed to some extent, specifically with regard to coordinating immunisation of newborns with midwives, understaffing and high turnover in the MoH workforce, especially in rural and remote areas, and the occasional unreliability and lack of coordination of government budget support. The cMYP for 2008-2015 emphasises the need to increase use of fixed sites and integration with IMCI, but the proposal for PCV introduction in 2015 continues to rely on outreach for vaccine delivery; it appears that the hoped-for increase in support for and utilisation of fixed sites has not materialised, and this means that outreach costs (per diem, transport, etc.) remain high.

5. Proposed activities, budgets, financial planning and financial sustainability

The addition of PCV to Cambodia's immunisation schedule will increase its vaccine costs from US$3.5 million in 2014 to US$8.2 million in 2015. The country's contribution will increase by ~US$200,000. Of note, the cost of the six traditional antigens – which the Government of Cambodia has paid for in full since taking it over from JICA in 2007 – has declined substantially, from a high of US$885,000 in 2008 to a projected low of just under US$500,000 in 2015. Cambodia proposes to make its first co-financing payment at US$0.20/dose for PCV in June 2015. As a low-income country, and one of the poorest countries in Asia, it is likely to be some time before Cambodia can contemplate sustainably financing new vaccine costs in the absence of GAVI and other partner support.

It is stated in the introduction plan that the Government will include the PCV co-financing payment in the budget for 2015.The payment for the first year of co-financed support will be around June 2015

6. Gender and Equity

Cambodia does not collect nor does it plan to collect sex disaggregated data in relation to immunisation. According to the cMYP, starting in 2010, gender specific immunisation cards with relevant growth charts for males and females were to be issued.

The proposal has clear information on how Cambodia intends to address the socio-economic barriers identified in the 2010 EPI review as affecting equity in the delivery of immunisation services and achieving full immunisation:

1. Migration of people, usually in search of work.
2. People who live in rural areas living some distance from a health facility, or where there are poor quality roads and/or seasonal flooding.
3. Ethnic minorities who may have a different language and cultural identity.
4. Urban slum dwellers and squatters who are often the poorest of the poor in comparison with the rural poor.

There are plans for additional immunisation rounds in the four high-risk communities identified above. However, there were no plans to analyse if there are any gender or equity related barriers relating to those communities.

7. Specific comments related to requested support

Pentavalent was introduced in 2010. No lessons learnt have been included in the proposal. However, since pentavalent was a switch from DTP-HepB, it is not directly comparable with the PCV introduction.

New vaccine introduction plan

PCV will be introduced into the schedule alongside pentavalent vaccine at 6, 10 and 14 weeks. The coverage target of 95% is perhaps a bit optimistic, but not unrealistic given current estimates of DTP3 coverage >90% nationwide and >95% in nearly half of the districts (however, in 15% of districts it is < 80%).

PCV13 is requested instead of PCV10 for the following reasons:

Additional serotype coverage.

Cambodia relies heavily on outreach for vaccine delivery, so a single-dose presentation would be more manageable and engender less wastage than a 2-dose, preservative-free presentation

Lower wastage factor

Nationwide introduction planned for January 2015. This will allow for cold chain expansion in 2014.

The vaccine introduction plan gives an overview of plans for translating training materials and delivering trainings at the national, provincial, and district levels. The outlined activities look appropriate, but there is limited detail provided and so it is difficult to assess whether the country has identified potential challenges and how it plans to address these.

A strong point of the introduction plan is the proposed sentinel surveillance for *Haemophilus influenza* type b and *Streptococcus pneumoniae* – selected specimens at the National Paediatric Hospital will be tested by latex agglutination and PCR.

An AEFI Committee is planned for in the cMYP, but there is no information about whether it and the AEFI Rapid Response Teams are functioning.

Vaccine introduction grant

Total estimated introduction costs:	US$383,339	
GAVI:	US$275,174	Used only for training and cold chain
HPSS2, UNICEF, WHO:	US$108,165	Training, social mobilisation, programme management,monitoring, technical assistance

Requests that the VIG be made available in 2014, and part of these funds distributed to UNICEF supply directly to support procurement of cold chain equipment.

Vaccine management and cold chain capacity

An extensive EVM assessment was conducted in Feb-March 2012 and resulted in a 10-item Improvement Plan. All the items on this plan were rated as high priority and had targeted completion dates of June 2013 or December 2013 (except the new manual, which is targeted for completion in March 2014). Thus, most of these items should have been completed or have had substantial progress by the time the proposal was submitted. The Progress Report supplied with the proposal was dated April 2013. This is within the 6-month timeframe specified in the proposal guidelines, and so it is technically acceptable; however, it is not as informative as a late report might have been. In the Progress Report, only 6 of the 10 improvement items are addressed. Improvement Plan item #8, the temperature mapping study, was apparently completed but there does not seem to be a summary of its findings in the documents provided to the IRC. Similarly, a temperature monitoring study was due to be completed in August 2013; given some egregious examples of temperature monitoring at the Operational District level in

the original EVM report, this is of some concern. Likewise, the decision to switch from conditioned to cold water packs or not may have implications for introduction of PCV, as it is a freeze-sensitive vaccine; this item of the Improvement Plan was not addressed in the Progress Report. However, the review of the cold chain storage space at all levels has been well done.

The Cold Chain Impact Assessment very clearly lays out the need to increase the cold chain capacity at the Provincial, Operational District, and Health Centre levels. There is adequate positive storage capacity at the central level to accommodate the 36% increase in volume per fully immunised child incurred by the introduction of PCV, provided that shipments are made every 4 months rather than every 6 months.

It is estimated that total cold chain costs amount to US$130,339. This is budgeted for in the GAVI vaccine introduction grant.

The CCIA details the need for additional refrigerators to either replace aging equipment or to provide for additional capacity. In 6/77 provinces – those that are most highly populated – vaccine stocks will be reduced from 3 months' worth to 1 month's worth to accommodate the higher space demand. This is a reasonable response, but potential ramifications in terms of transport and personnel costs and possible stock-outs have not been addressed.

Waste management

An incineration waste management system has been introduced. However, 33% of districts do not have incinerators, and transport distances for delivery of the safety boxes to incinerators are sometimes too large.

8. Country document quality, completeness, consistency and data accuracy

In general, documents were complete, consistent, and data accurate, with the exceptions noted above that the "lessons learnt" section of the application was not filled out and that there is some discrepancy in a) the costs of needed improvements to the cold chain, and b) the number of cold boxes needed at the Health Centre level.

9. Overview of the proposal

Strengths: Well-justified need for PCV, strong coverage and good likelihood that PCV coverage will be high. Plan for sentinel disease surveillance. Good plan to scale up cold chain capacity.

Weaknesses: NA.

Risks: More frequent stocking increases risk of stock-outs, especially at lowest levels.

Mitigating strategies: Challenges and potential responses not addressed in proposal.

10. Conclusions

PCV13 implementation is likely to be feasible; the country will have one year of VIG funding to lay the groundwork, and to solicit support from other partners.

11. Recommendations

NVS

Recommendation: Approval