GHANA MALARIA VACCINE DECISION-MAKING FRAMEWORK-DATA

	Pre-licensure 5 years before licensure	Available data - Phase 3	Licensure 2 years after licensure	Post-licensure 5 years after licensure		
Malaria disease burden	5Yrs trend SyrsTrends of Reported malaria admission confirmed (critical data) (critical data) SyrsTrends of malaria deaths 5 yr (critical data) (critical data) (critical data)	Sentinel site data on lab-confirmed cases of clinical disease, severe disease, and deaths from malaria (critical data)	Sentinel site data on lab-confirmed cases of clinical disease, severe disease, and deaths from malaria (critical data)	Sentinel site data on lab-confirmed cases of clinical disease, severe disease, and deaths from malaria (critical data)		
Other malaria interventions	Impact of malaria preventive interventions (critical data) Cost-effectiveness estimates of malaria preventive interventions interventions (critical data) Cost-effectiveness estimates of malaria preventive interventions (critical data)	Surveys to assess coverage, use, and impact of current preventive interventions (critical data) Country-level cost-effectiveness of malaria preventive interventions (critical data)	Changes in impact of malaria interventions Surveys to assess coverage, use, and impact of current interventions	Surveys to assess coverage, use, and impact of current interventions (critical data)		
Malaria vaccine impact	Impact in different age groups (critical data) Impact on < 59 mths in Ghana (through modeling) (critical data)	Absolute impact impact on epidemiology and morbidity modeling (critical data) Absolute impact on epidemiology and morbidity interventions (through modeling) (critical data)		Immunization coverage on lab confirmed mal (country wide) (critical data) (cri		
Economical and financial issues	Credible public-sector price estimate cost-effectiveness estimates of malaria vaccine (regional or sub-regional results) (critical data) Preliminary cost-effectiveness estimates of malaria vaccine (regional or sub-regional results) (critical data) Return on investment (i.e., cost/benefits information for politicians, MoF)	Public-sector Donor subsidy of vaccine price malaria vaccine (critical data)	Sustainability of donor subsidy Ceritical data) Sustainable national affordability commitment (critical data)	Updated malaria vaccine investment vaccine vaccine cost- effectiveness data Return on investment vaccine price vaccine price (critical data)		
Malaria vaccine efficacy, quality and safety	Quality Safety Adverse events available, is useful where we don't, need system to evaluate data for Ghana (critical data)	(critical data) including protection impact on: Clinical disease (critical data)	Safety Quality (critical data) (critical data)	Safety Quality Post-licensure safety data (critical data) (critical data)		
Programmatic considerations	Vaccine presentation (critical data) Evidence of established policy, regulatory, and institutional roadmap to support intervention Evidence of established quantification (critical data)	Supply availability (critical data)	Impact of vaccine presentation on health system (e.g., logistics inc. cold chain, training) the vaccine (critical data) (critical data)	nd ment		
Socio-cultural environment	Knowledge attitudes, and practices of communities towards vaccines and malaria interventions Community expectations of malaria vaccines in clinical trial areas			KAP, especially on acceptability and compliance (e.g., drop out rates)		

GHANA MALARIA VACCINE DECISION-MAKING FRAMEWORK-PROCESSES

	Pre-licensure 5 years before licensure			Licensure 2 years after licensure			Post-licensure 5 years after licensure					
AVAILABLE DATA - PHAS				E 3			MALARIA VACCINE INTRODUCTION DECISION					
National processes	Stakeholder consensus	Engage media in malaria vaccine advocacy from beginning (ongoing)	ICC to constitute technical expert group to drive process	Health Promotion and education Unit (with support from ICC sub-committee) develops IEC package about malaria vaccine (1-2 years before)	Develop procurement plan and resource mobilization (including logistics requirements) for financial sustainability (critical processes)	Based on expert groups recommendations, ICC recommends vaccine introduction to government through Minister of Health (critical processes)	Food and Drugs Board approves vaccine (within 1 year of licensure) (critical processes)	programmatic guidelines for implementation (at least one year before introduction) • Develop introduction plan			introduction evaluation (within 12 months); look at training, distribution,	Evaluate coverage and impact
	cMYP(2007-11) and the Malaria Strategy to reflect to include a possible malaria vaccine	Gov of Ghana signals potential demand based on product profile and target group (1-3 years before)	ICC and other stakeholders to engage in advocacy to ensure sustainable GoV commitment to Mal financing.					Training of personnel Continue IE (critical process	C activities	Monitor and evaluation	cold chain systems, adverse events, coverage (critical processes)	Monitor implementa- tion and coverage (critical processes)
Global processes	Integrate country development plar (critical processes)	requirements into is (5 years before)	product		WHO issues policy recommending vaccine use (critical processes)	Donors provide funding to support vaccine	WHO publishes vaccine management guidelines (licensure) (critical processes)	tional agencies plan for	WHO pre- qualification (within 1 year of licensure) (critical processes)	Donor partners monitor country performance		

Key: National process Global process