LOG FRAME MATRIX HAI-Ghana Project						
PROJECT TITLE:		Healthcare associated infections in Ghana				
Long-term objective / impact		The developmental objective is to reduce morbidity, mortality and cost related to HCAIs in Ghana				
Immediate objectives / Work packages		1. To build research capacity in clinical microbiology, interventional studies, cost analysis and ethnographic health facility research related to HCAIs 2. To describe the epidemiology of HCAIs , develop and pilot a surveillance system for SSIs 3. To identify and implement effective infection control interventions to prevent health care associated neonatal and puerperal sepsis 4. To assess practices, perceptions and conditions that influence HCAI prevalence rates and the uptake of infection control interventions of health care providers, patients and their relatives 5. To measure the direct, indirect and opportunity cost of HCAIs				
To be used for reporting first year, midterm and final. Please insert more rows below if needed.						
Outcome 1		**Outcome Indicator**	**Baseline**	**Midterm Milestone**	**Target**	**Assumptions**
			-2015	2019	2021	
1	a) Increased research capacity at Department of Medical Microbiology, Ghana Health Service and Institute of Statistical, Social and Economic Research in the fields of HCAIs by Year 2020. b)Increased academic focus on HCAIs c)Increased insight into contextual and facility conditions and the perceptions, roles and practices of manage	a)Number of publications in international peer reviewed journal b)Number of new research activities at involved institutions,Number of researchers with supervisory capabilities in HCAIs c)Availability of research-based socio-cultural analysis to provide basis for identification and planning of suitable interventions to prevent HCAIs	a)Limited research capacity, one paper published on HCAIs in Ghana b)Limited focus, one paper published on HCAIs in Ghana c)No information	9 publications in international peer reviewed journal	18 publications in international peer reviewed journal	a) Preventive intervention turn out to be ineffective b)Preventive intervention turn out to be cost effecient; results of project accepted by stakeholders and decision makers c)Decision makers pursue implementation of identified preventive interventions

	rs, health staff, patients and relatives that influence HCAI.		Source: a)PubMed b)Institutional ethical and protocol committee reports, University departmental records/online CVs			
Output (to outcome 1)		**Output Indicator**	**Baseline**	**Midterm Milestone**	**Target**	**Assumptions**
			-2015	2019	2021	
1.1	3 PhDs trained in relation to HCAIs	Number of PhD students enrolled in involved institutions; Number of study plans developed and presented for admission at University of Ghana and University of Copenhagen; Number of students attending PhD or doctoral courses; Number of semester Progress reports of each studen	PhD students in the area of HCAIs in the Department of Medical Microbiology, Ghana Health Service and Institute of Statistical, Social and Economic Research	3 PhD students enrolled and conducting research	3 PhDs trained in relation to HCAIs	PhDs return to home country; PhDs are subsequently employed in research organisations after training; PhD courses will equip students with tools for research in HCAIs; The training of PhDs and Post-docs in HCAIs research will lead to interest and sustained research
			Source:List of students enrolled at the Universities ; Annual progress report ; Project newsletter accessible online			
1.2	Post-Doctoral fellowships completed, 3 in Ghana	Number of Post doc fellows in involved institution	No Post-Doctoral fellow in the Department of Medical Microbiology, Ghana Health Service and Institute of Statistical, Social and Economic Research	4 publications in international peer reviewed journal	8 publications in international peer reviewed journal	Available, qualified and interested academic and administrative staff
			Source: Certificate of accumulated credits; Project progress report			

1.3	A local team of 10 research supervisors established	Number of new research activities at involved institutions	Limited research capacity, one paper published on HCAIs in Ghana	A local team of 10 research supervisors on healthcare associated infections established	A local team of 10 research supervisors on healthcare associated infections established	Adequate capacity to train at participating academic institutions
			Source: Certificate of accumulated credits; Institutional ethical and protocol committee reports			

Outcome 2:		**Outcome Indicator**	**Baseline**	**Midterm Milestone**	**Target**	**Assumptions**
			-2015	2019	2021	
2	a) Increased knowledge about the epidemiology of HCAIs b)Increased priority of infection control by GHS and Teaching Hospital c)Effective infection control interventions identified and implemented to prevent health care associated neonatal and puerperal infections	a) Proportion of study sites with available prevalence of overall HCAIs; Proportion of study sites with available incidence of Neonatal sepsis/ Puerperal infections	a) One paper published on HCAIs in Ghana	1 publication on point prevalence of HCAI in Ghana published	4 publications on epidermiology of HCAI	a) Decision makers pursue implementation of identified preventive interventions;Stakeholders interested, willing and able to use findings; Adequate commitment by participating clinical units to implement and sustain surveillance of SSIs Key professionals continue in their positions

		b)Number of functional infection control units in participating GHS hospitals; Number of full time infection control nurses at KBTH number of infection control meetings held at GHS hospitals; Number of SSIs diangosed from participating hospitals c)Number of participating hospitals with infection control interventions implemented	b) SSIs selected as indicator of patient safety by MOH Ghan;One full time infection control nurse at KBTH c) No information	Establish 1 Surveillance system for SSI in selected hospitals	Surveillance system for SSI established in 2 selected hospitals	b) Decision makers pursue implementation of identified preventive interventions;Stakeholders interested, willing and able to use findings; Adequate commitment by participating clinical units to implement and sustain surveillance of SSIs Key professionals continue in their positions c) Decision makers pursue implementation of identified preventive interventions;Stakeholders interested, willing and able to use findings; Adequate commitment by participating clinical units to implement and sustain surveillance of SSIs Key professionals continue in their positions
			Source: a) Project newsletter accessible online b) Reports from Institutional Care Division, GHS; Hospital annual reports / pilot surveillance system c) Project progress reports			
Output (to outcome 2)		**Output Indicator**	**Baseline**	**Midterm Milestone**	**Target**	**Assumptions**
			-2015	2019	2021	
2.1	At least 18 manuscripts published in peer reviewed international journals;		Limited knowledge, one study conducted in 2002 with overall HCAI prevalence of 7% am	9 papers published in peer	18 published papers in peer	Good collaboration between partner institutions and participating clinical units

	Qualitative and quantitative analyses to provide foundation for feasible interventions to prevent HCAIs; Analysis of the prevalence of overall HCAIs and predominant categories of HCAIs study site completed		ong all inpatients at one teaching hospital	reviewed journals	reviewed journals	
		Number of publications in international peer reviewed journals; Number of qualitative research reports about contextual and facility conditions, perceptions, roles and practices with respect to HCAIs;Number of study sites with a point prevalence of HCAIs conducted	Source:Pubmed; Project progress report			
2.2	Analysis of incidence of neonatal sepsis, puerperal infections and SSIs at study site completed; Associated organisms and antibiograms identified; Assessment of factors associated with HCAI morbidity and mortality completed		No information currently available	1 paper published each on SSI, Neonatal and Pueperal sepsis in peer reviewed journals	2 papers published each on SSI, Neonatal and Pueperal sepsis in peer reviewed journals	Commitment of partner institutions to allocate adequate time and resources for project; Adequate commitment by participating clinical units to prioritize research on neonatal and puerperal sepsis; Commitment by management to collaborate and empower Infection control staff
		Incidence rates of neonatal sepsis, puerperal infections and SSIs				
			Source: Project progress report; Published data in peer reviewed journal online; Hospital annual reports			

2.3	Pilot surveillance system for SSIs in participating hospitals implemented; Prospective surveillance methods in participating hospitals established; Cost effective interventions that prevent HCAI identifie		NO existing surveillance system in place	Establish 1 Surveillance system for SSI in at least 1 selected hospital	Surveillance system for SSI established in 2 selected in hospitals	Commitment of partner institutions to allocate adequate time and resources for project; Adequate commitment by participating clinical units to prioritize research on neonatal and puerperal sepsis; Commitment by management to collaborate and empower Infection control staff
		Number of reports of SSIs within surveillance system ; Number of interventions identified	Source:Project progress reports; Hospital/GHS/MOH reports			

Outcome 3:		**Outcome Indicator**	**Baseline**	**Midterm Milestone**	**Target**	**Assumptions**
			-2015	2019	2021	
3	a)Improved infection control in participating hospitals with reduced number of HCAIs and improved patient safety; b) Improved knowledge and use among researchers, health professionals and decision makers on societal costs, including health systems and patient costs and	a)Incidence rates of health care associated Neonatal sepsis and Puerperal Infections b)Cost estimates available for selected HCAI; Availability of policy guidelines for investing in prevention of HCAIs c)Budgetary allocations for investments in preventing HCAIs	a) Information to be established with the prospective surveillance before implementing interventions	Setting up/training of Infection control team in 1 selected hospital; training of 3 infection control nurses	Setting up/training of Infection control teams in 2 selected hospitals ; training of 6 infection control nurses	Decision makers pursue implementation of identified preventive interventions; Stakeholders interested, willing and able to use findings; Adequate commitment by participating clinical units to implement and sustain surveillance of SSIs; Key professionals continue in their positions

	productivity loss, related to HCAI; c) Improved knowledge and use of cost-effectiveness and cost-benefit analysis of selected HCAI control interventions		b) No cost estimate of HCAI available for Ghana; No policy guidelines available c) No economic evaluations of HCAI control interventions available for Ghana	1 publication on cost of HCAIs in an international peer reviewed journal	2 publications on cost of HCAIs in an international peer reviewed journal	
			Source: a) Hospital/GHS/MOH reports b) Peer reviewed articlesAnnual plan from Institutional Care Division, GHS c) Annual hospital report from study sites			
Output(to outcome 3)			**Baseline**	**Midterm Milestone**	**Target**	**Assumptions**
			-2015	2019	2021	
3.1	Infection control guidelines developed that are tailored to the local context and specific needs of the health care workers Infection control interventions implemented	Number of guidlines developed ; Proportion of health care staff complient with given intervention	National infection control guidelines available	1 infection control guideline developed to suit at least one participating hospital	2 infection control guidelines developed to suit at least 2 participating hospital	Commitment of partner institutions to allocate adequate time and resources for project; Adequate commitment by participating clinical units to prioritize research on neonatal and puerperal sepsis; Commitment by management to collaborate and empower Infection control staff
			Source: Project progress reports; Clinical audit			

3.2	Enabling environment for infection control established at interventional hospitals; Infection control staff educated	Number of hospital with guidelines for infection control; Number of infection teams nurses trained	No information	1 infection control guideline developed to suit at least one participating hospital	2 infection control guidelines developed to suit at least 2 participating hospital	Good collaboration between partner institutions and participating clinical units; Commitment of partner institutions to allocate adequate time and resources for project
			Source: Publications in peer reviewed journals; Project progress reports			
3.3	Patient survey data set available and analysed w.r.t. patient cost and productivity loss; Health services cost data set analysed to determine health system costs; Model-based estimation of costs and benefits of selected HCAI control interventions completed	Number of publications in international peer reviewed journals	To be established	1 publication on cost of HCAIs in an international peer reviewed journal (refer to midterm milestone outcome 3)	2 publications on cost of HCAIs in an international peer reviewed journal	Good collaboration between partner institutions and participating clinical units; Commitment of partner institutions to allocate adequate time and resources for project
			Source: Pubmed			