Table 1. Matrix linking objective, criteria, data collection tools, procedures, study population **and analyses** for the SPEEDIER IBCM Implementation Study

Objective	**Criteria (how we know we have achieved objective) & information required**	**Data collection tools**	**Procedures**	**Study Population**	**Analyses**
1. To develop and optimize IBCM for delivery in the Philippines	We will have developed and adapted SOPs, training and train the trainer (ToT) materials for use in Phase 2. To deliver that, we will have gathered data on: 1. training and implementation of all components of IBCM 2. fidelity with which IBCM is delivered 3. how public health and animal health workers interact using the peer support group 4. use of the helpline 5. acceptability, appropriateness and adoption of IBCM 6. ABTC registers to summarize quarterly patient consultations (numbers of patients, PEP received/ completed).	Pre-Post training questionnaire Structured observations of training, of patient consultations and of animal investigations Peer support group (provisionally facebook messenger chat) Helpline register in ABTCs Questionnaire to assess acceptability, appropriateness and adoption of IBCM two weeks and 12 weeks after training Semi-structured interviews with a full sample of all involved staff in each setting, to include the head of the ABTC (chief of hospital/ medical officer/ doctor), nurses, animal health workers, and Barangay public health workers, if involved. Interviews to cover barriers and facilitators to the implementation of IBCM in local context. IBCM application (App) used by public health workers and animal health workers to record risk assessments and animal	All trained staff to complete a pre-/post training questionnaire All training sessions observed Up to 10 patient consultations and animal investigations observed All trained staff receive digitally-administered questionnaire on acceptability, appropriateness and adoption of IBCM All staff to be invited to interview, consented, interviews recorded, translated and transcribed Logs from the peer support group compiled and queries from the helpline registers extracted. Data from IBCM database will be downloaded and summarized by patient presentations (high/low risk, PEP initiated and completed) and animal investigations (not a case/ suspect/ probable)	All public health and animal health workers associated with 2 ABTCs and their catchment municipalities taking part in phase 1 (in each of Romblon and Oriental Mindoro) A sample of adult patients/ carers A sample of animal owners	**Analysis of data (pre/post-training questionnaires; notes from observations; acceptability, appropriateness and adoption questionnaires and staff interview transcripts) will be descriptive and focused on what needs to change in training and delivery of IBCM and whether and how the data collection instruments need refining** **Review of peer support group log and helpline queries to summarize experiences and challenges encountered during IBCM.** **IBCM database summaries reviewed to determine whether IBCM App design is sufficient to capture key outcomes.** **ABTC register records compared to IBCM database to check ease of comparison and alignment of key indicators.** **Review of debriefing notes to**

			Researchers take debriefing notes on performance of each data collection instrument		
2. Estimate the coverage achieved in terms of completed risk assessments and high-risk animals investigated over 24 months	Data collected on patients presenting at clinics who have risk assessments of bite events undertaken by public health workers	IBCM application (App) used by public health workers to record risk assessments and registers used in ABTCs for bite patients	Public health workers trained in IBCM (risk assessments, communications) and use of IBCM App to submit records to database. Quarterly summary of ABTC registers (no. patients, PEP received/ completed)	**Patients presenting at clinics**	**Calculate the number of completed risk assessments from the IBCM app (numerator) as a percentage of patient presentations from ABTC registers (denominator).**
	Data collected on animals investigated following classification that they are high-risk	IBCM application (App) used by animal health workers to record animal investigations.	Animal health workers trained in IBCM (animal investigations, communications and rapid diagnostic tests) and use of App to submit records to database.	**Animals involved in biting patients that presented at clinics.**	**Calculate the number of biting animals investigated (numerator) as a percentage of biting animals identified as high risk from the IBCM database (denominator).**
3. Evaluate the impact of IBCM in terms of appropriate patient care and rabies detection	Data collected on percentage of patients bitten by a high-risk animal who receive PEP promptly and who complete their PEP regimen	IBCM application (App) used by public health workers to record risk assessment and by animal health workers to record animal investigations Registers used in ABTCs for bite patients	Public health workers trained in IBCM (risk assessments) and use of App to submit records to database. Quarterly summary of ABTC registers (numbers of patients, PEP received/completed)	**Bite patients presenting to ABTCs**	**Correspondence between patient risk assessment and PEP provision i.e. whether complete and timely PEP given to those bitten by high-risk animals, or unnecessary PEP given to those bitten by low-risk animals**
	Data collected on animal rabies cases detected from investigations, discriminating outcomes according to clinical and laboratory diagnostics.	Rapid Diagnostic Tests (RDTs), routine laboratory diagnostics (FAT) and lab-in-a-suitcase platform at RITM and RADDL	Animal health workers trained in IBCM (investigations including RDTs), use of App to submit records and sending of samples for laboratory diagnosis. Laboratory technicians trained in lab-in-a-suitcase platform (RNA extraction, Library preparation,	**Biting animals investigated**	**Trends in numbers of investigated animals classified as 'not a case', 'suspect rabies' or 'probable rabies'; RDT results; virus lineages and most recent common ancestors/ source attribution (phylogenetic analysis)**

			MinION sequencing, Bioinformatics)Quarterly summary of diagnostic laboratory records (samples collected, tested & diagnoses). Training of laboratory scientists in genomic surveillance. Characterization of rabies lineages and distribution from archived samples. Compilation of laboratory reports of rabies cases with phylogenetic component where available.		
	Data collected on bite victims identified from animal investigations and recommended PEP but who had not previously sought care	IBCM application (App) used by public health workers to record risk assessment and by animal health workers to record animal investigations	Public health workers and animal health workers trained in IBCM (risk assessments) and use of App to submit records to database.	Bite patients including those that presented to ABTCs and those identified from animal investigations	**Numbers of high-risk bite victims identified from animal investigations, recommended PEP (who had not sought care) as a proportion of total bite patients and high-risk bite patients**
	Data collected on patient and provider use of helpline	Helpline register in ABTCs	Queries from helpline registers will be extracted.	Patients, public health and animal health workers using helpline	**Trends in patient and provider helpline calls, categorized thematically in relation to patient care, rabies case detection and advice provided.**
4. Assess the quality of training, acceptability, appropriateness and adoption of IBCM	Data on perceptions of acceptability and appropriateness of IBCM for use, and extent to which IBCM is integrated into routine practice and thus adopted	Observation of training Semi-structured interviews with a purposive sample of 4-5 staff in each setting, to include the head of the ABTC (chief of hospital/medical officer/doctor), nurse, animal health workers, and Barangay public health	All trained staff receive a digitally-administered questionnaire on acceptability, appropriateness and adoption of IBCM A purposive sample of staff to be invited to interview, consented, interviews	Public health and animal health workers	**Quantitative data from the questionnaires will be summarized based on scores from each of the four NPT constructs. Qualitative data from observations and interviews will provide contextual meaning for the scores. Quantitative and**

		workers if involved. Questionnaire to assess acceptability, appropriateness and adoption of IBCM two weeks and 6 months after training	recorded, translated and transcribed		**qualitative data will be synthesized to assess the extent of data convergence, divergence or silence**
	Quality of training in IBCM delivery	Pre-/Post training questionnaires	All trained staff to be asked to complete a pre- post training questionnaire All training sessions to be observed	Public health and animal health workers	**Quantitative data from the questionnaires will be analysed descriptively to examine whether knowledge increased after training. Qualitative data from observations of training will summarized thematically with a coding frame structured in the first instance by the observation proforma and second, allowing for any unanticipated themes to emerge. We will interrogate summaries for any possible response difference by doctors, nurses, animal health workers and Barangay health workers (if involved). Quantitative and qualitative data will be synthesized to assess the extent of data convergence, divergence or silence**
5. Evaluate the fidelity of implementation of IBCM	As for obj. 2, data on patients presenting at clinics who have risk assessments of bite events undertaken by public health workers	IBCM application used by public health workers to record risk assessment Registers used in ABTCs for bite patients	As for obj. 2 for coverage of risk assessments	Public health workers	**Quantitative trends by month, ABTC catchment and province of discrepancy between ABTC patients from registers and completed risk assessments from IBCM app.**

	As for obj. 2, data on animals investigated and their risk classification	IBCM application used by animal health workers to record investigations	As for obj. 2 for coverage of animals investigated	Animal health workers	**Quantitative trends by month, ABTC catchment and province of discrepancy between high risk animals identified from IBCM app and completed animal investigations (see for Obj. 2)**
	Data on the extent to which the protocols were implemented as intended, and on how easy staff say they found it to stick to the IBCM protocol and what helped and hindered fidelity	Observation of consultations with bite patients and investigations Semi-structured interviews with purposive sample described for objective 4 to cover fidelity to protocol	A sample of consultations with patients presenting at ABTCs and investigations of high-risk animals to be investigated with a structured proforma As for objective 4 for semi-structured interviews	A sample of adult patients/carers, and of animal owners	**Qualitative data from observations of IBCM consultations and investigations of high-risk animals will be summarized in relation to the extent to which they adhere to the protocols.**
6. Estimate the costs of implementing IBCM	Data on the costs of delivering all aspects of IBCM	IBCM application used by public health workers and animal health workers to record risk assessments and animal investigations Registers used in ABTCs for bite patients Observation of consultations with bite patients and animal investigations and questionnaires to assess acceptability, appropriateness and adoption of IBCM (2 weeks, 12 weeks & 6 months post-training).	Public health workers and Animal health workers trained in IBCM (risk assessments and animal investigations) and use of App to submit records to database Audit of budget to capture all realized IBCM training delivery and implementation costs	Public health and animal health workers, Municipal & Provincial office staff involved in ABTC, RHU and MAO management	**Estimated and projected monthly and annual costs of risk assessments, bite investigations and overall IBCM implementation by event, ABTC catchment and province.**