National Center for Emerging and Zoonotic Infectious Diseases



Outils pour la planification d'un programme de vaccination canine

Jesse Bonwitt, BVSc MSc MRCVS

Poxvirus and Rabies Branch

Division of High Consequence Pathogens and Pathology

US Centers for Disease Control and Prevention



- 1. Planification
- 2. Extension de la couverture vaccinale
- 3. Maintient de la couverture vaccinale

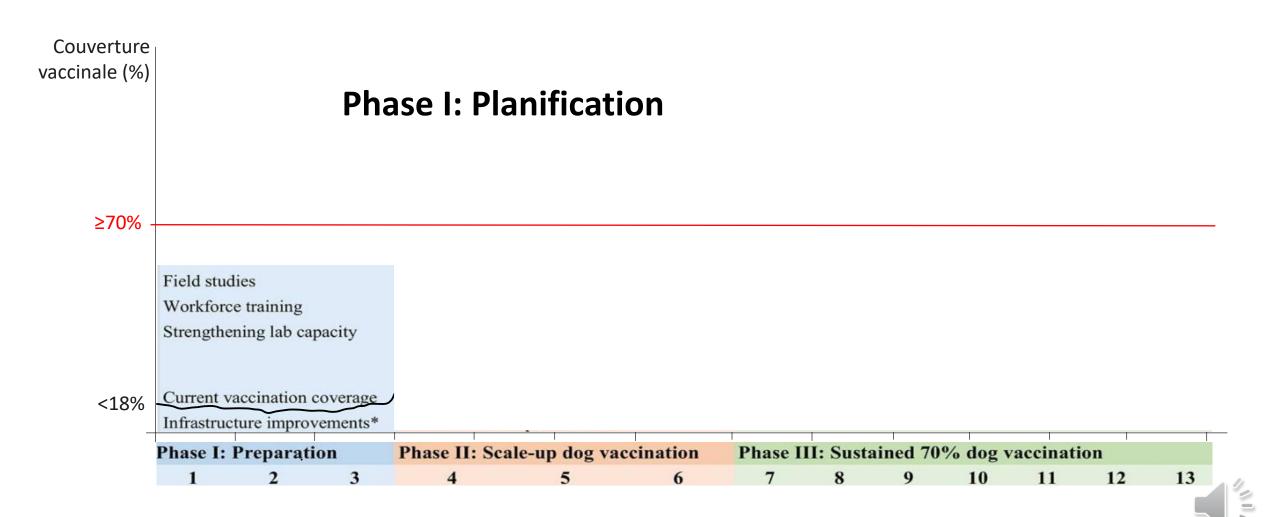
Elimination of Dog-Mediated Human Rabies Deaths by 2030: Needs Assessment and Alternatives for Progress Based on Dog Vaccination

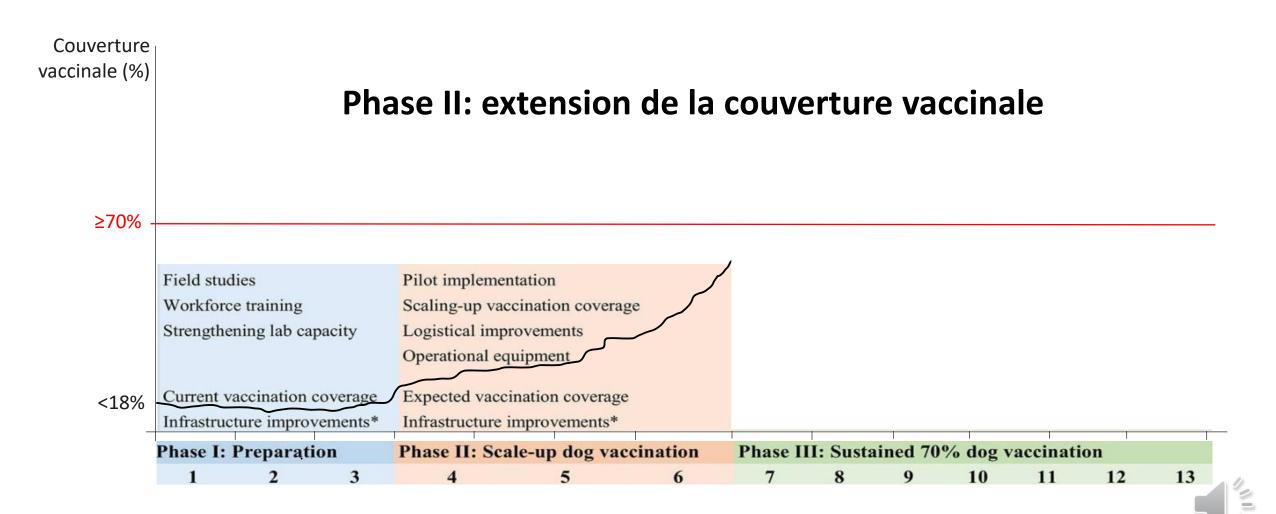
Ryan M. Wallace*, Eduardo A. Undurraga, Jesse D. Blanton, Julie Cleaton and Richard Franka

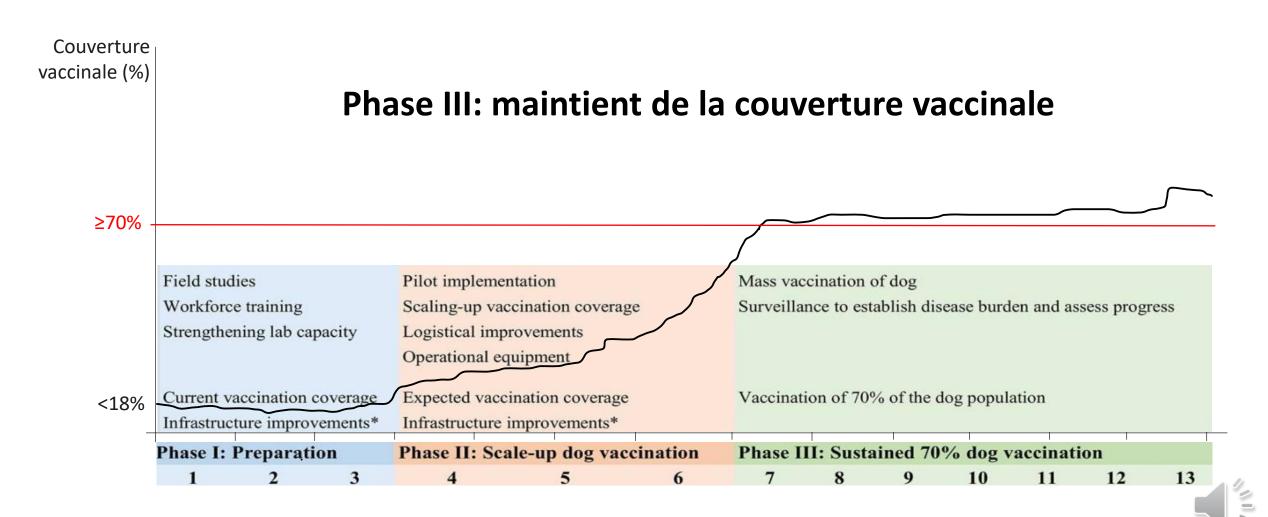
National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, GA, USA









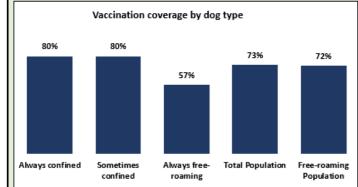


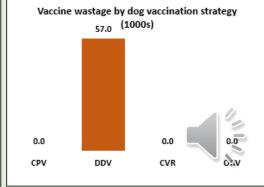


Vax-PLAN: A guide for designing effective vaccination

	Planning	g aid for	the impl	ementa	
Input: Enter Values in White Co	ells				
Describe the confinement of the dog population in the program area.	N	umber of D	ogs	%	
How many dogs are in the program area?		600,000		100.0%	
What proportion are always under owner confinement?		60,000		10.0%	
What proportion are only sometimes under owner confinment?*		360,000		60.0%	
What proportion are always free-roaming?		180,000		30.0%	
2. Provide the number of vaccines you plan to procure.	n	oses Procur	ed	%	
How many parenteral vaccines will be procured?		500,000	-u	70	
How many oral vaccines will be procured?		0		99.0%	
3. Allocate the vaccines to a vaccination strategy.	D	oses Procur	ed	%	
What proportion of vaccines will be allocated to Central Point vaccination?		165,000		33.0%	
What proportion of vaccines will be allocated to Door to Door vaccination?		165,000			
What proportion of vaccines will be allocated to Capture, Vaccinate, Release?		165,000			
Proportion of vaccines allocated to Oral vaccination		0		0.0%	
4. Describe the efficacy of the vaccines you have procured.		Percent Eff	icacious (%)	
What is the efficacy of the parenteral vaccine?			00%	,	
What is the efficacy of the oral vaccine?			00%		
			7070		
5. Expected Vaccination Effectiveness by Method §		Vaccinatio	n strategy*	ŧ	
Confinement status:	CPV	DDV	CVR	ORV	
What is the expected coverage among dogs that are always confined?	80%	80%	5%	5%	
What is the expected coverage among dogs that are only sometimes confined?	60%	60%	80%	80%	
What is the expected coverage among dogs that are never confined?	5%	5%	60%	80%	
6. How confident are you in your responses to the input variables?			5		
OPTIONAL: Suggested values for vaccination strategy table					
What is your current estimated program area vaccination coverage?		4	5%		
GDREP§ phase:		Phas	se II b		
Suggested values:	CPV	DDV	CVR	ORV	
Always confined	80%	80%	5%	5%	
Semi-confined	60%	60%	80%	80%	
Never confined	5%	5%	60%	80%	
Vaccination campaign costs per vaccinated dog*		Estima	ate value		
LUCK DUTTOD TO ESTIMATE THE AVERAGE COST HER GOD VACCIDATED					

	Results: o	calculated va	lues			
Vaccination Doses by Strategy	Abbrev	viation	Procured	Used	Unused	
Central Point Vaccination	CP	v	165,000	165,000	-	
Door to Door Vaccination	DD	v	165,000	108,000	57,000	
Capture, Vaccinate, Release	CV	R	165,000	165,000	-	
Oral Vaccine Handouts	OR	N	-			
				Confid	dence	
Vaccination doses by dog type	Vaccinated	Unvaccinated	Percent	Lower	Upper	Immunized
Always confined	48,000	12,000	80%	74%	86%	80%
Sometimes confined	288,000	72,000	80%	74%	86%	80%
Always free-roaming	102,000	78,000	57%	51%	63%	57%
				Confid		
Vaccination coverage by dog type	Dogs	Dogs Immunized		Lower	Upper	Immunized
Total Population	600,000	438,000	73%	67%	79%	73%
Free-roaming Population	540,000	390,000	72%	66%	78%	72%
	Procured	Used	Unused	Lower	Upper	
Vaccine utilization	500,000	88%	11%	5%	20%	
Economic costs	Total (\$)	4		Vaccine wasta	ige	11%
Cost per dog vaccinated	\$ 3.01					
Total Campaign Cost	\$ 1,318,656					
Lower bound	\$ 833,856					
Upper bound	\$ 1,811,743	0%	= (Used Un	nused	100%
	+ -,					_
Vaccination coverage by do	g type		Vaccine [,]	wastage by dog	g vaccination	strategy





Exemple: pays en développement, communauté urbaine



		lementatio	on of dog vaccination campaigr						
Input: Enter Values in White Cel	ls			Results: o	alculated va	alues			
1. Describe the confinement of the dog population in the program area.	Number of Dogs	%	Vaccination Doses by Strategy	Abbrev	viation	Procured	Used	Unused	
How many dogs are in the program area?	0	#DIV/0!	Central Point Vaccination	CF	v	-	-	-	
What proportion are always under owner confinement?	0	0,0%	Door to Door Vaccination	DI	ov	-	(-)	-	
What proportion are only sometimes under owner confinment?*	0	0,0%	Capture, Vaccinate, Release	CV	/R	12-	(-)	-	
What proportion are always free-roaming?	0	0,0%	Oral Vaccine Handouts	OF	RV	-	-	-	
							Confi	dence	
2. Provide the number of vaccines you plan to procure.	Doses Procured	%	Vaccination doses by dog type	Vaccinated	Unvaccinated	Percent	Lower	Upper	Immunized
How many parenteral vaccines will be procured?	0	#DIV/01	Always confined	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
How many oral vaccines will be procured?	0	#DIV/0!	Sometimes confined	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
			Always free-roaming	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3. Allocate the vaccines to a vaccination strategy.	Doses Procured	%					Confi	dence	
What proportion of vaccines will be allocated to Central Point vaccination?	0	0,0%	Vaccination coverage by dog type	Dogs	Immunized	Percent	Lower	Upper	Immunized
What proportion of vaccines will be allocated to Door to Door vaccination?	0	0,0%	Total Population	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
What proportion of vaccines will be allocated to Capture, Vaccinate, Release?	0	0,0%	Free-roaming Population	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Proportion of vaccines allocated to Oral vaccination	0	#DIV/0!							
				Procured	Used	Unused	Lower	Upper	
4. Describe the efficacy of the vaccines you have procured.	Percent Efficacious (%	%)	Vaccine utilization	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
What is the efficacy of the parenteral vaccine?	100%								
What is the efficacy of the oral vaccine?	100%		Economic costs	Total (\$)	00/	,	Vaccine wast	age	
			Cost per dog vaccinated	#DIV/0!	0%)			
5. Expected Vaccination Effectiveness by Method §	Vaccination strategy*	**	Total Campaign Cost	\$ 4 920					
Confinement status:	CPV DDV CVR	ORV	Lower bound	\$ 3 030					
What is the expected coverage among dogs that are always confined?	80% 80% 5%	5%		\$ 6560		-	Used U	nused	4000/
	80% 80% 5%	80%	Upper bound	3 0 300	0%				100%
What is the expected coverage among dogs that are only sometimes confined? What is the expected coverage among dogs that are never confined?	5% 5% 60% 5% 5%	80%	Vaccination coverage by	dog type		Vaccine	wastage by do	g vaccination	strategy
What is the expected coverage among dogs that are never commed:	3/0 3/0 00/0	8070	Vaccination coverage sy	y dog type			(100	•	, ou a.c.g,
6. How confident are you in your responses to the input variables?	5								
OPTIONAL: Suggested values for vaccination strategy table									
What is your current estimated program area vaccination coverage?	70%								
GDREP§ phase:	Phase III								
Suggested values:	CPV DDV CVR	ORV							
Always confined	95% 95% 5%	5%		-4/					~
Semi-confined	80% 80% 95%	95%	0% 0% 0%	0%	0%	0,0	0,0	0,0	0,0
Never confined	5% 5% 80%	95%	Always confined Sometimes Always fro	ee- Total Population	Free-roaming	CPV	DDV	CVR	ORV
Vaccination campaign costs per vaccinated dog†	Estimate value		confined roaming	g	Population				/
Click button to estimate the average cost per dog vaccinated	Estimate value								

Planning aid for the implementation of dog vaccination campaigns

1. Describe the confinement of the dog population in the program area. How many dogs are in the program area? What proportion are always under owner confinement? What proportion are always under owner confinement? 2. 2000 40,0% What proportion are always under owner confinement? 2. 2000 40,0% What proportion are always free-roaming? 2. Provide the number of vaccines you plan to procure. How many parenteral vaccines will be procured? 3. Allocate the vaccines will be procured? 3. Allocate the vaccines to a vaccination strategy. What proportion of vaccines will be allocated to Central Point vaccination? What proportion of vaccines will be allocated to Central Point vaccination? 4. Describe the efficacy of the vaccines you have procured. What is the efficacy of the vaccines you have procured. What is the efficacy of the vaccines you have procured. What is the efficacy of the vaccines you have procured. What is the efficacy of the vaccines you have procured. What is the efficacy of the vaccines you have procured. What is the efficacy of the vaccines you have procured. What is the efficacy of the vaccines you have procured. What is the efficacy of the vaccines you have procured. What is the efficacy of the vaccines you have procured. What is the efficacy of the vaccines you have procured. What is the efficacy of the vaccines you have procured. What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are always confined? 80% 60% 80% 80% 80%	Input: Enter Values in White Ce		ig ald for t	ne impi	mentat		or dog va	ccination ca	IIIIpaigiis	Results:	calculated va	alues
Non-many dogs are in the program ana? Solid 100,0%	And The State Character College and All Colleg		ımher of Dog	18	%		Vaccination	Doses by Stra	tegy			Procur
Mint proportion are always under cover confinement? 2.000		140	_	,,		Ш			L-61			1
Value proportion are only sometimes under owner confinement?* 2 0.00 40,0%						Ш						
What proportion are always free-roaming? 2 500						Ш						2
How many parenteral vaccines will be procured? 4.000 100,0%			2 500			Ш				o	RV	
How many parenteral vaccines will be procured? 4.000 100,0%									carried to			
Allocate the vaccines to a vaccination strategy. What proportion of vaccines will be allocated to Central Point vaccination? 4. Describe the efficacy of the vaccines you have procured. What preportion of vaccines soll be allocated to Central Point vaccination? 4. Describe the efficacy of the vaccines you have procured. What is the efficacy of the vaccines by Method 5 Confinement status: What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are nonly sometimes confined? What is the expected coverage among dogs that are nonly sometimes confined? What is the expected coverage among dogs that are nonly sometimes confined? What is the expected coverage among dogs that are nonly sometimes confined? What is the expected coverage among dogs that are nonly sometimes confined? What is the expected coverage among dogs that are nonly sometimes confined? What is the expected coverage among dogs that are nonly sometimes confined? What is the expected coverage among dogs that are nonly sometimes confined? What is the expected coverage among dogs that are nonly sometimes confined? Sometimes confined and double and double and double and sometimes confined? Vaccination coverage by dog type Total Population Tot	2. Provide the number of vaccines you plan to procure.	D	oses Procure	d	%	Ш	Vaccination	doses by dog	type	Vaccinated		
A company or a vaccines will be procured? 0 40,0%					100.0%	Ш	The state of the s					80%
3. Allocate the vaccines to a vaccination strategy. What proportion of vaccines will be allocated to Central Point vaccination? What proportion of vaccines will be allocated to Central Point vaccination? What proportion of vaccines will be allocated to Central Point vaccination? What proportion of vaccines will be allocated to Central Point vaccination? 4. Describe the efficacy of the vaccination Percent Efficacious (%) What is the efficacy of the parenteral vaccine? What is the expected vaccination Effectiveness by Method § Confinement status: CPV DDV CVR ORV What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? What is the expected values for vaccination strategy table What is your current estimated program area vaccination coverage? Proportion of vaccines will be allocated to Central Population O	How many oral vaccines will be procured?		0		100,070	Ш						
What proportion of vaccines will be allocated to Central Point vaccination? 1 600 40,0%	3. Allocate the vaccines to a vaccination strategy	D	osas Procura	4	9/	Ш	Always free-r	oaming		1500	1 000	60%
What proportion of vaccines will be allocated to Door to Door vaccination? What proportion of vaccines will be allocated to Capture, Vaccinate, Release? Proportion of vaccines allocated to Oral vaccination Document of vaccines allocated to Oral vaccination Percent Efficacious (%) What is the efficacy of the vaccines by Method § Confinement status: Confinement status: What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? What is your current estimated program area vaccination coverage? Originals: Suggested values: Always confined Suggested values Always confined Suggested values Always confined Suggested values Always confined Suggested values for vaccinated dog* Total Population 5 000 3 300 707 Free-roaming Population Footured Vaccine utilization Vaccine utilization Footured Vaccine utilization Vaccine utilization Footured Vaccine utilization Vaccine utilization Footured Suggested values Confined Suggested values Confined Suggested values Footure utilization Vaccine utilization Vaccine utilization Footured Vaccine utilization Vaccine utilization Footured Suggested values Confined Suggested values Vaccine utilization Vaccine u				u		Ш	Vaccination	coverage by	dog type	Dogs	Immunized	Perce
What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are never confined? What is the expected vourage among dogs that are never confined? What is the expected vourage among dogs that are never confined? OPTIONAL! Suggested values: OPTIONAL! Suggested values for vaccination strategy table OPTIONAL! Suggested values for vaccination coverage? OREP\$ phase: OPTIONAL! Suggested values for vaccination strategy table OPTIONAL!						Ш		-	aog type			
Proportion of vaccines allocated to Oral vaccination 0 0,0% 4. Describe the efficacy of the vaccines you have procured. What is the efficacy of the parenteral vaccine? What is the efficacy of the oral vaccine? 5. Expected Vaccination Effectiveness by Method \$ Confinement status: What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are never confined? 6. How confident are you in your responses to the input variables? OPTIONAL: Suggested values: CPV DDV CVR ORV What is your current estimated program area vaccination coverage? GDREP\$ phase: CPV DDV CVR ORV What is your current estimated program area vaccination coverage? GDREP\$ phase: CPV DDV CVR ORV What is your current estimated program area vaccination coverage? GDREP\$ phase: CPV DDV CVR ORV What is your current estimated program area vaccination coverage? Flase III Suggested values: CPV DDV CVR ORV What is your current estimated program area vaccination coverage? Flase III Always confined Sometimes Always free- Total Population Free-toaming Population Free-toaming Population Free-toaming Population			-			Ш						
4. Describe the efficacy of the vaccines you have procured. What is the efficacy of the parenteral vaccine? What is the efficacy of the parenteral vaccine? What is the efficacy of the oral vaccine? Downward of the parenteral vaccine? S. Expected Vaccination Effectiveness by Method § Confinement status: CPV DDV CVR ORV What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? What is your current estimated program area vaccination coverage? Suggested values: CPV DDV CVR ORV B0% 80% 80% 80% S0% S0% S0% S0% S0% S0% S0% S0% S0% S						Ш	Free-roaming	Population		4 300	3 100	6970
4. Describe the efficacy of the vaccines you have procured. What is the efficacy of the parenteral vaccine? What is the efficacy of the oral vaccine? 5. Expected Vaccination Effectiveness by Method \$ Confinement status: What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? For invariant is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? For invariant is the expected coverage among dogs that are never confined? What is your current estimated program area vaccination coverage? For invariant is the expected coverage by dog type Vaccination coverage by do	Proportion of vaccines anocated to Oral vaccination		0		0,070	ш				Procured	Used	Unus
What is the efficacy of the parenteral vaccine? What is the efficacy of the oral vaccine? 100% S. Expected Vaccination Effectiveness by Method § Confinement status: What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? Solve to the expected coverage among dogs that are never confined? Solve to the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? Solve to the expected coverage among dogs that are never confined? Solve to the expected coverage among dogs that are never confined? Solve to the expected coverage among dogs that are never confined? Solve to the expected coverage among dogs that are never confined? Solve to the expected coverage among dogs that are never confined? Solve to the expected coverage among dogs that are never confined? Solve to the expected coverage among dogs that are never confined? Vaccination strategy* Vaccination strategy* Solve to the expected coverage among dogs that are never confined? Solve to the expected coverage among dogs that are never confined? Vaccination coverage by dog type	4. Describe the efficacy of the vaccines you have procured.		Percent Effic	acious (%)		Ш	Vaccine uti	lization				13%
5. Expected Vaccination Effectiveness by Method § Confinement status: What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? Swiggested values for vaccination strategy table What is your current estimated program area vaccination coverage? GDREP§ phase: Phase III Suggested values: CPV DDV CVR ORV B0% 80% 80% 80% FPhase III Suggested values: CPV DDV CVR ORV B0% Swiggested values: CPV DDV CVR ORV Swiggested values: CPV DDV CVR ORV Swiggested values: Always confined Swiggested values: CPV DDV CVR ORV Swiggested values: Always confined Sometimes Always free- Total Population Free-roaming CPV						Ш						
5. Expected Vaccination Effectiveness by Method § Confinement status: What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are only sometimes confined? What is the expected coverage among dogs that are never confined? 6. How confident are you in your responses to the input variables? OPTIONAL: Suggested values for vaccination strategy table What is your current estimated program area vaccination coverage? GOREP§ phase: Suggested values: Always confined Suggested values: OPV DDV CVR ORV Suggested values: CPV DDV CVR ORV Suggested values: CPV DDV CVR ORV Suggested values: CPV DDV CVR ORV Suggested values: Suggested values: CPV DDV CVR ORV Suggested values: CPV DDV CVR ORV Suggested values: Suggested values: CPV DDV CVR ORV Suggested values: CPV DDV CVR ORV Suggested values: Suggested values: CPV DDV CVR ORV Suggested values: Suggested values: CPV DDV CVR ORV Su	What is the efficacy of the oral vaccine?		1009	6		Ш	Economic o	osts		Total (\$)		
Confinement status: What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are only sometimes confined? What is the expected coverage among dogs that are never confined? What is the expected coverage among dogs that are never confined? Swapper of the input variables? OPTIONAL: Suggested values for vaccination strategy table What is your current estimated program area vaccination coverage? Always confined Suggested values: Always confined Swapper on fined Swapp						Ш	Cost per dog	vaccinated		\$ 3,97		
What is the expected coverage among dogs that are always confined? What is the expected coverage among dogs that are only sometimes confined? What is the expected coverage among dogs that are only sometimes confined? Sw 60% 80% 80% Sw 60% 80% Sw 60% 80% Copy and the complete stimated program area vaccination coverage? Always confined Semi-confined Semi-confined Never confined Semi-confined Semi-confined Semi-confined Semi-confined Semi-confined Semi-confined Sw 80% 95% 95% 5% 95% Sw 80% 95% Sw 50% 80% 95% Sw 50% 80% 95% Sw 50% 80% 95% Semi-confined Semi-confined Sometimes Fetimate value CPV Vaccination coverage by dog type Vaccination coverage by dog	5. Expected Vaccination Effectiveness by Method §		Vaccination s	trategy**		Ш	Total Campai	gn Cost		\$ 13 890		
What is the expected coverage among dogs that are only sometimes confined? What is the expected coverage among dogs that are never confined? Sometimes confined? What is the expected coverage among dogs that are never confined? Sometimes confined coverage by dog type Vaccination coverage by dog type	Confinement status:	CPV	DDV	CVR	ORV	Ш		Lower bou	ınd	\$ 8 662		
What is the expected coverage among dogs that are never confined? 5% 5% 60% 80% 6. How confident are you in your responses to the input variables? 5 OPTIONAL: Suggested values for vaccination strategy table What is your current estimated program area vaccination coverage? OPTIONAL: Suggested values for vaccination strategy table What is your current estimated program area vaccination coverage? OPTIONAL: Suggested values for vaccination coverage? OPTIONAL: Suggested values for vaccination strategy table OPTIONAL: Suggested values for vaccination coverage by dog type	What is the expected coverage among dogs that are always confined?	80%	80%	5%	5%	Ш		Upper bou	ind	\$ 18 928	0%	
6. How confident are you in your responses to the input variables? 5 OPTIONAL: Suggested values for vaccination strategy table What is your current estimated program area vaccination coverage? GDREP§ phase: Phase III Suggested values: Always confined Semi-confined Never confined Never confined Vaccination campaign costs per vaccinated dog† Sometimes confined Festimate value Always free-roaming Population Free-roaming Population	What is the expected coverage among dogs that are only sometimes confined?	80%	60%	80%	80%	Ш						
OPTIONAL: Suggested values for vaccination strategy table What is your current estimated program area vaccination coverage? OPTIONAL: Suggested values for vaccination strategy table What is your current estimated program area vaccination coverage? OPTIONAL: Suggested values for vaccination strategy table OPTIONAL: Suggested valu	What is the expected coverage among dogs that are never confined?	5%	5%	60%	80%	Ш		Vaccination of	overage by do	g type		Vac
OPTIONAL: Suggested values for vaccination strategy table What is your current estimated program area vaccination coverage? OPTIONAL: Suggested values for vaccination strategy table What is your current estimated program area vaccination coverage? OPTIONAL: Suggested values for vaccination strategy table OPTIONAL: Suggested valu		Т				Ш	000/	00%				
What is your current estimated program area vaccination coverage? Phase III			5			Ш	80%	80%		70%	69%	
GDREP§ phase: Suggested values: Always confined Semi-confined Never confined Semi-confined Sometimes confined Som	OPTIONAL: Suggested values for vaccination strategy table								60%			
Suggested values: Always confined Semi-confined Semi-confined Never confined Vaccination campaign costs per vaccinated dog† CPV DDV CVR ORV 95% 95% 5% 5% Semi-confined Semi-confined Sometimes confined Sometimes confined Sometimes confined Free-roaming Population Free-roaming Population						Ш						
Always confined Semi-confined 80% 80% 95% 95% Never confined 5% 5% 80% 95% Vaccination campaign costs per vaccinated dog† Estimate value Always confined Sometimes confined Sometimes confined Free-roaming Population Free-roaming Population						Ш						
Semi-confined 80% 80% 95% 95% Never confined 5% 5% 80% 95% Vaccination campaign costs per vaccinated dog† Estimate value 80% 80% 95% 95% Always confined Sometimes confined roaming roaming roaming Population CPV						Ш						
Never confined Sometimes Sometimes Sometimes Sometimes CPV Vaccination campaign costs per vaccinated dog† Always confined Sometimes Always free Total Population Free-roaming CPV												0.0
Vaccination campaign costs per vaccinated dog [†] Estimate value Confined roaming Population	30 Harris 10 (April 10 Harris 10 Har											
Estimate value		3/0			93/0		Always confine			Total Population		CPV
			Estimate	value								

Vaccination Doses by Strategy	Abbrev	viation	Procured	Used	Unused	
Central Point Vaccination	СР	v	1 600	1 600	-	1
Door to Door Vaccination	DD	V	-	(-)	1=	1
Capture, Vaccinate, Release	cv	R	2 400	1 900	500	1
Oral Vaccine Handouts	OF	RV	-	-	-	
				Confi	dence	
Vaccination doses by dog type	Vaccinated	Unvaccinated	Percent	Lower	Upper	Immunized
Always confined	400	100	80%	74%	86%	80%
Sometimes confined	1 600	400	80%	74%	86%	80%
Always free-roaming	1 500	1 000	60%	54%	66%	60%
				Confi	dence	
Vaccination coverage by dog type	Dogs	Immunized	Percent	Lower	Upper	Immunized
Total Population	5 000	3 500	70%	64%	76%	70%
Free-roaming Population	4 500	3 100	69%	63%	75%	69%
V	Procured	Used	Unused	Lower	Upper	
Vaccine utilization	4 000	88%	13%	5%	20%	
				V		
Economic costs	Total (\$)			Vaccine wast	age	13%
Cost per dog vaccinated	\$ 3,97					
Total Campaign Cost	\$ 13 890					
Lower bound	\$ 8 662					
Upper bound	\$ 18 928	0%	■ (Jsed Ur	nused	100%
		,				
Vaccination coverage by o	log type		Vaccine	wastage by do (100	-	strategy
80% 80%					0,5	
	70%	69%				
60%						

CVR

ORV

DDV

Planning aid for the implementation of dog vaccination campaigns

Input: Enter Values in White Ce		ig alu lor i	ine impi	mentat		or dog v	accination ca	ilipaiglis	Results	calculated va	alues _
Describe the confinement of the dog population in the program area.		umber of Do				Vaccinatio	n Doses by Stra	tomi			Procur
	INI	5 000	gs	% 100.0%	1		t Vaccination	itegy		viation PV	
How many dogs are in the program area? What proportion are always under owner confinement?		500		100,0%	1		r Vaccination			DV	1
What proportion are aiways under owner confinement? What proportion are only sometimes under owner confinment?*		2 000		40,0%	1		ccinate, Release			VR	2
What proportion are always free-roaming?		2 500		50,0%	1	Oral Vaccin				RV	
What proportion are always need rounning.		2 300		30,070	4	Oral Vaccili	Handouts			it.	
2. Provide the number of vaccines you plan to procure.	D	oses Procure	ed	%	1	Vaccinatio	n doses by dog	type	Vaccinated	Unvaccinated	Percei
How many parenteral vaccines will be procured?		4 000			11	Always conf	ined		400	100	80%
How many oral vaccines will be procured?		0		100,0%		Sometimes	confined		1 600	400	80%
			•		1	Always free	roaming		1 500	1 000	60%
3. Allocate the vaccines to a vaccination strategy.	D	oses Procure	ed	%	Ш						
What proportion of vaccines will be allocated to Central Point vaccination?		1 600		40,0%		Vaccinatio	n coverage by	dog type	Dogs	Immunized	Percei
What proportion of vaccines will be allocated to Door to Door vaccination?		0		0,0%		Total Popula	ition		5 000	3 500	70%
What proportion of vaccines will be allocated to Capture, Vaccinate, Release?		2 400		60,0%		Free-roamin	g Population		4 500	3 100	69%
Proportion of vaccines allocated to O ral vaccination		0		0,0%							
						Vaccine u	ilization		Procured	Used	Unuse
4. Describe the efficacy of the vaccines you have procured.		Percent Effic	cacious (%))———	Ш	vaccine u	ilization		4 000	88%	13%
What is the efficacy of the parenteral vaccine?		100)%								
What is the efficacy of the oral vaccine?		100)%			Economic	costs		Total (\$)		
						Cost per do	vaccinated		\$ 3,97		
5. Expected Vaccination Effectiveness by Method §		Vaccination	strategy**		Ш	Total Camp	aign Cost		\$ 13 890		
Confinement status:	CPV	DDV	CVR	ORV	Ш		Lower bou	ınd	\$ 8 662		
What is the expected coverage among dogs that are always confined?	80%	80%	5%	5%			Upper bou	ind	\$ 18 928	0%	
What is the expected coverage among dogs that are only sometimes confined?	80%	60%	80%	80%	11						
What is the expected coverage among dogs that are never confined?	5%	5%	60%	80%			Vaccination (overage by do	g type		Vac
					ıll						
6. How confident are you in your responses to the input variables?		5				80%	80%		70%	69%	
OPTIONAL: Suggested values for vaccination strategy table								60%	7070	09%	
What is your current estimated program area vaccination coverage?		709	%								
GDREP§ phase:		Phase	e III								
Suggested values:	CPV	DDV	CVR	ORV	Ш						
Always confined	95%	95%	5%	5%							0.0
Semi-confined	80%	80%	95%	95%							0,0
Never confined	5%	5%	80%	95%	1	Always confi		Always free-	Total Population	Free-roaming	CPV
Vaccination campaign costs per vaccinated dog† Click button to estimate the average cost per dog vaccinated		Estimat	te value				confined	roaming		Population	
Chick button to estimate the average cost per dog vaccinated											

Vaccination Doses by Strategy	Abbrev	riation	Procured	Used	Unused	
Central Point Vaccination	CP	v	1 600	1 600	-	
Door to Door Vaccination	DD	v	-	(-)	-	
Capture, Vaccinate, Release	cv	R	2 400	1 900	500	
Oral Vaccine Handouts	OR	rV .	-	-	-	
				Confi	dence	
Vaccination doses by dog type	Vaccinated	Unvaccinated	Percent	Lower	Upper	Immunized
Always confined	400	100	80%	74%	86%	80%
Sometimes confined	1 600	400	80%	74%	86%	80%
Always free-roaming	1 500	1 000	60%	54%	66%	60%
				Confi	dence	
Vaccination coverage by dog type	Dogs	Immunized	Percent	Lower	Upper	Immunized
Total Population	5 000	3 500	70%	64%	76%	70%
Free-roaming Population	4 500	3 100	69%	63%	75%	69%
Vaccine utilization	Procured 4 000	Used 88%	Unused 13%	Lower 5%	Upper 20%	
Economic costs Cost per dog vaccinated Total Campaign Cost Lower bound	Total (\$) \$ 3,97 \$ 13 890 \$ 8 662			Vaccine wast	age	13%
Upper bound	\$ 18 928	0%	■ (Jsed Ur	nused	100%
Vaccination coverage by dog	g type		Vaccine	wastage by do (100		strategy
80% 80% 60%	70%	69%			0,5	

CVR

ORV

Planning aid for the implementation of dog vaccination campaigns Input: Enter Values in White Cells

Describe the confinement of the dog population in the program area.	Number of Dogs	%
How many dogs are in the program area?	5 000	100,0%
What proportion are always under owner confinement?	500	10,0%
What proportion are only sometimes under owner confinment?*	2 000	40,0%
What proportion are always free-roaming?	2 500	50,0%

2. Provide the number of vaccines you plan to procure.	Doses Procured	%
How many parenteral vaccines will be procured?	4 500	100.00/
How many oral vaccines will be procured?	0	100,0%

3. Allocate the vaccines to a vaccination strategy.	Doses Procured	%
What proportion of vaccines will be allocated to Central Point vaccination?	900	20,0%
What proportion of vaccines will be allocated to Door to Door vaccination?	0	0,0%
What proportion of vaccines will be allocated to Capture, Vaccinate, Release?	3 600	80,0%
Proportion of vaccines allocated to Oral vaccination	0	0,0%

4. Describe the efficacy of the vaccines you have procured.	Percent Efficacious (%)
What is the efficacy of the parenteral vaccine?	100%
What is the efficacy of the oral vaccine?	100%

5. Expected Vaccination Effectiveness by Method §		/accination	strategy*	*
Confinement status:	CPV	DDV	CVR	ORV
What is the expected coverage among dogs that are always confined?	80%	80%	5%	5%
What is the expected coverage among dogs that are only sometimes confined?	80%	60%	80%	80%
What is the expected coverage among dogs that are never confined?	5%	5%	60%	80%

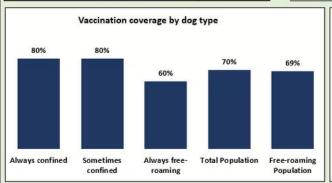
6. How confident are you in your responses to the input variables?	5

OPTIONAL: Suggested values for vaccination strategy table

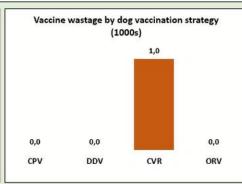
GDREP§ phase: Phase III				
What is your current estimated program area vaccination coverage? GDREP§ phase:	3,8,5,0			
Always confined	95%	95%	5%	5%
Semi-confined	80%	80%	95%	95%
Never confined	5%	5%	80%	95%
Vaccination campaign costs per vaccinated dog† Click button to estimate the average cost per dog vaccinated		Estima	te value	

	Results: o	calculated va	lues			
Vaccination Doses by Strategy	Abbreviation		Procured	Used	Unused	
Central Point Vaccination	CPV DDV CVR		900	900	-	
Door to Door Vaccination			-	-	-	
Capture, Vaccinate, Release			3 600	2 600	1 000	
Oral Vaccine Handouts	ORV		-	-	-	
				Confidence		
Vaccination doses by dog type	Vaccinated	Unvaccinated	Percent	Lower	Upper	Immunized
Always confined	400	100	80%	74%	86%	80%
Sometimes confined	1 600	400	80%	74%	86%	80%
Always free-roaming	1 500	1 000	60%	54%	66%	60%
					Confidence	
Vaccination coverage by dog type	Dogs	Immunized	Percent	Lower	Upper	Immunized
Total Population	5 000	3 500	70%	64%	76%	70%
Free-roaming Population	4 500	3 100	69%	63%	75%	69%
Vaccine utilization	Procured	Used	Unused	Lower	Upper	
vaccine atmization	4 500	78%	22%	15%	29%	
Economic costs	Total (\$)		Vaccine wastage			22%
Cost per dog vaccinated	\$ 4,65					2270
Total Campaign Cost	\$ 16285					
Lower bound	\$ 10 061			and mile		

0%



Upper bound



■ Used ■ Unused

100%

22 321

^{*} Dogs that are allowed to roam unsupervised in the community, but come back to a home to receive some level of care are considered "sometimes confined". These may include owned, community owned, or loosely owned dogs.

^{**} Vaccination strategies = CPV: central point vaccination. CVR: Capture, vaccinate, and release. DDV: door to door. ORV: Oral rabies vaccination

[§] GDREP stands for Global Dog Rabies Elimination Pathway. See Wallace et al. 2017 for details.

Use "Dog Vax Cost" help worksheet to estimate vaccination campaign costs (best cost estimate, and lower and upper bounds)

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- Mission Rabies Goa Vaccination Team
- Mission Rabies Malawi Vaccination Team
- Mission Rabies Sri Lanka Vaccination Team

Ou puis-je trouver l'outil?

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6805755/



https://rabiestaskforce.com/toolkit/vaxplan



- Pour toutes questions ou pour obtenir une version à jour:
 - Ryan Wallace (US CDC): <u>euk5@cdc.gov</u>
 - Andy Gibson (Mission Rabies): andy@missionrabies.com

