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Exceptional Situation of Malaria in Venezuela



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1. Current Situation
2. PAHO Response till date
3. Proposed Actions

SITUATION OF MALARIA IN VENEZUELA



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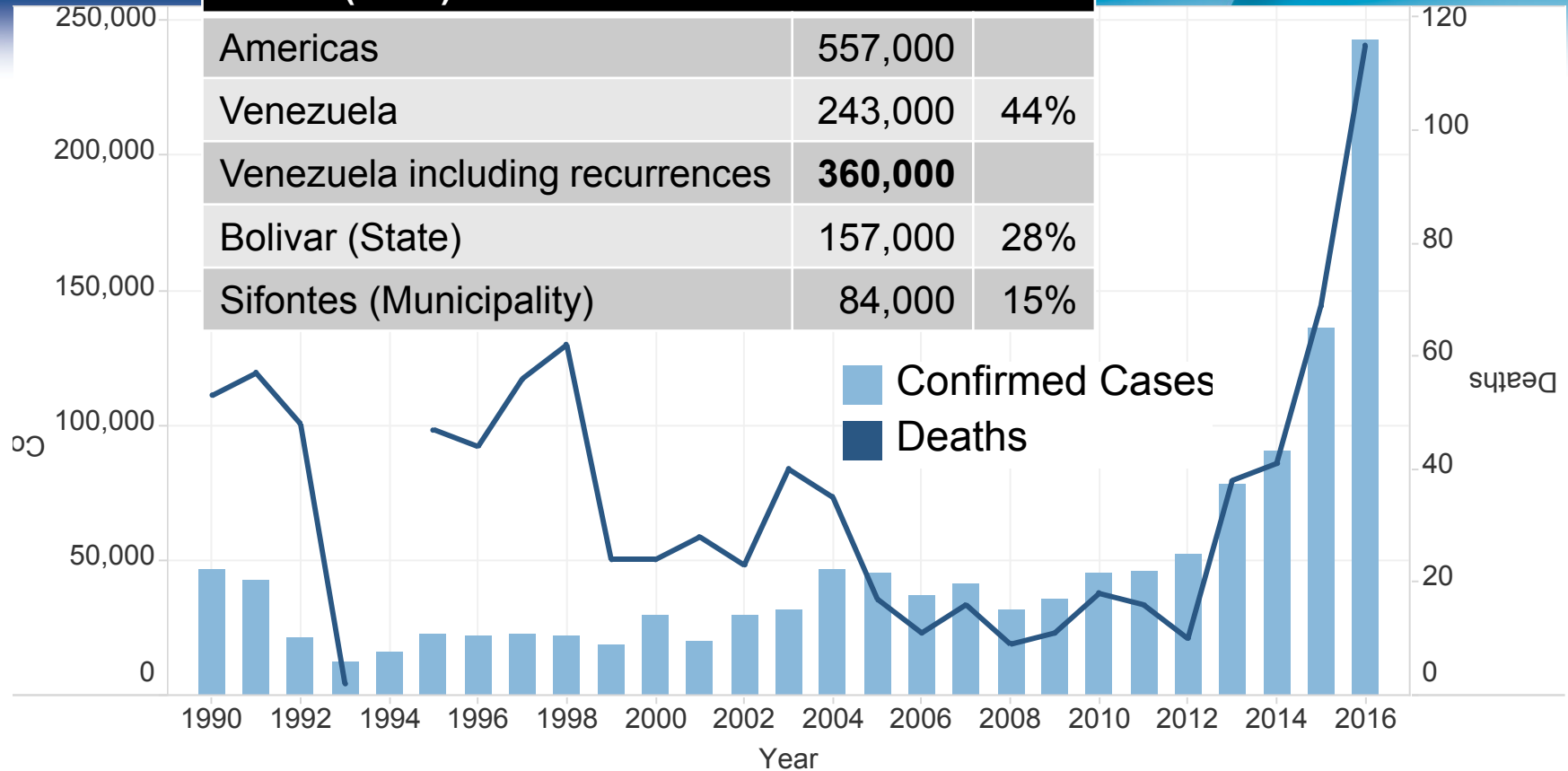


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Malaria cases and related deaths in Venezuela, 1990-2016

Cases (2016)

Americas	557,000	
Venezuela	243,000	44%
Venezuela including recurrences	360,000	
Bolivar (State)	157,000	28%
Sifontes (Municipality)	84,000	15%



MINERVEN

Illegal mining



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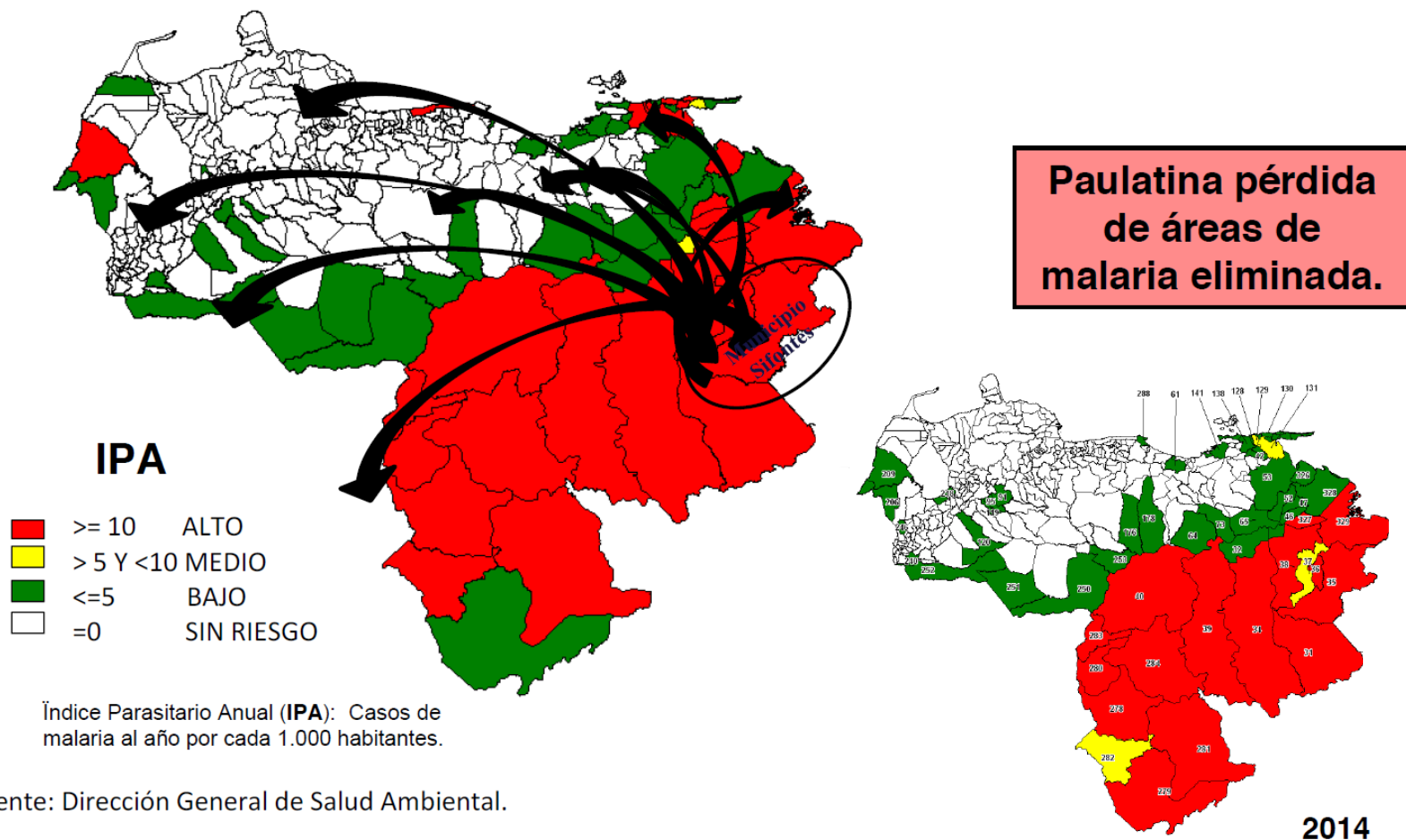


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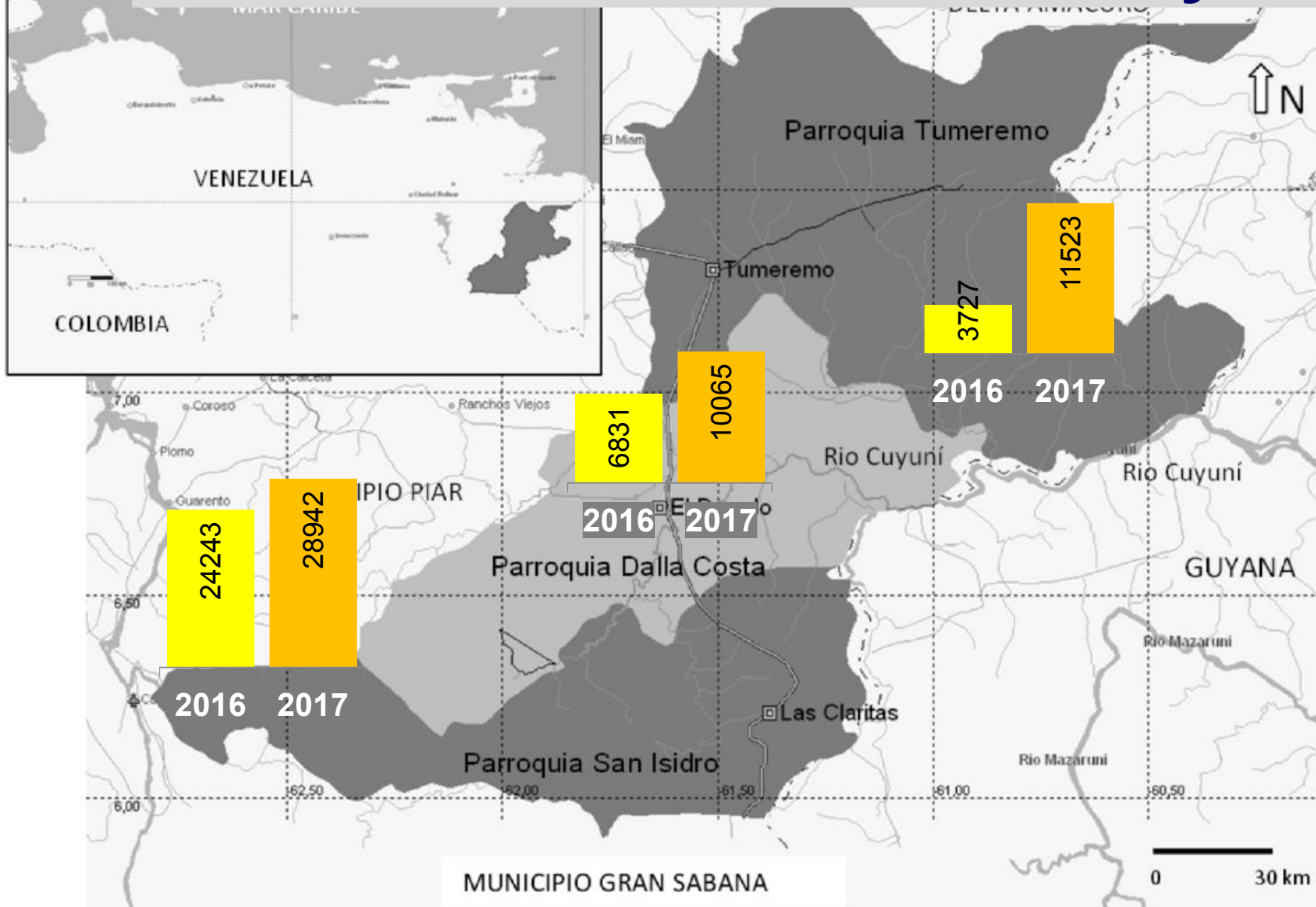
MALARIA EN VENEZUELA: ÁREAS DE RIESGO, 2016

FIGURA 1. ÁREAS DE RIESGO DE MALARIA – MUNICIPIO SEGÚN IPA, HASTA SEMANA EPIDEMIOLÓGICA 25. VENEZUELA, 2016



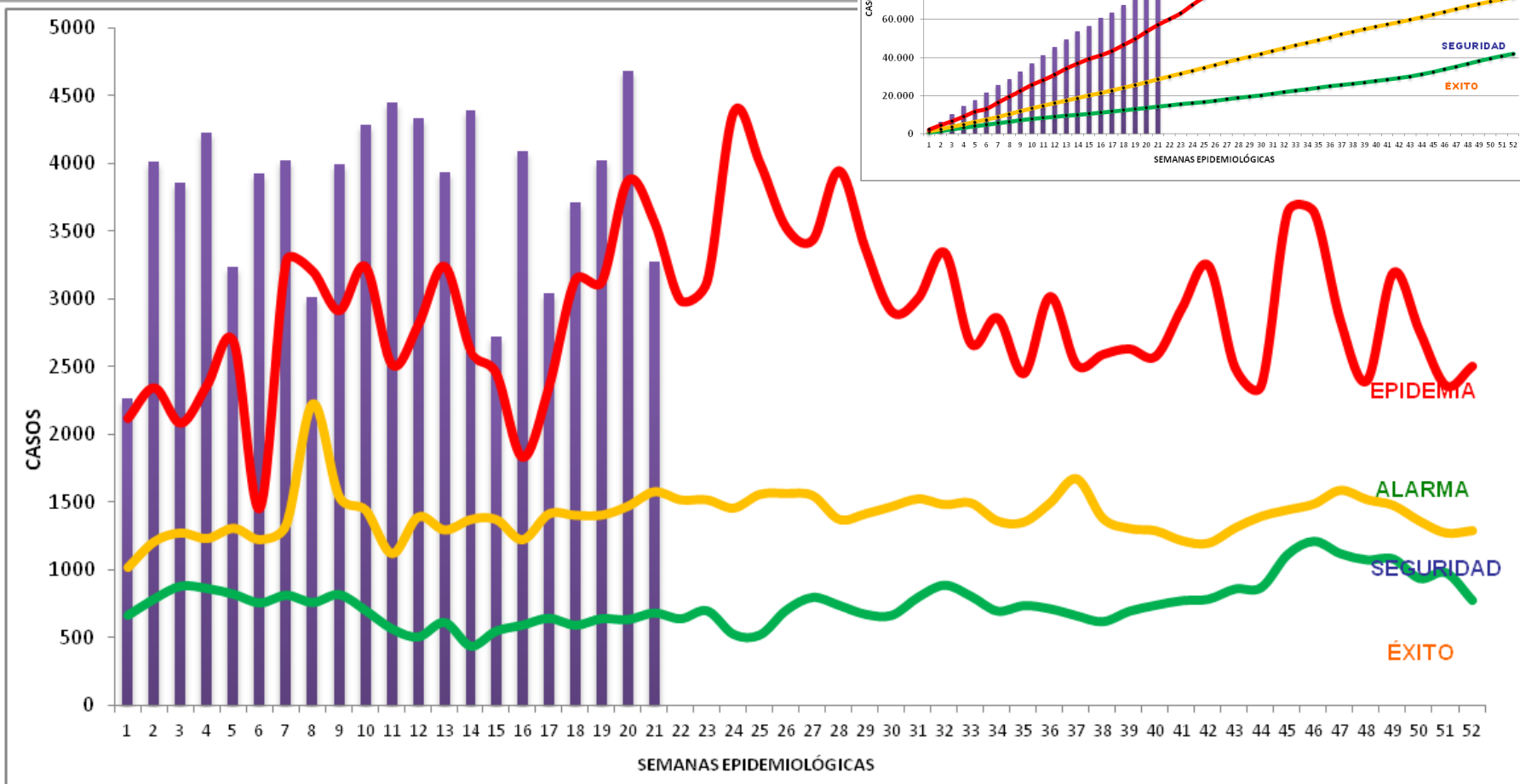
Fuente: Dirección General de Salud Ambiental.

Malaria in first 21 weeks of the year



Epidemiological Situation

Cases by epidemiological week in Bolivar state, 2017



In San Isidro, Sifontes – till week 11

Casos Nuevos	1,036	68%
Recaidas	478	32%
Total	1,514	100%

Formula Parasitaria

Parasito	os Nue	%
P.V.	733	71%
P.F.	235	23%
P.M.	0	0%
I.M.	68	7%
Total	1036	100%

Número de casos por ocupación

OCUPACION	Femenino	Masculino	TOTAL	%
AGRICULTOR	0	0	0	0%
COMERCIANTE	1	0	1	0%
COCHINERA	0	0	0	0%
DESEMPLEADO	0	0	0	0%
ESTUDIANTE	67	94	161	11%
MINERO	4	930	934	62%
OBRERO	0	0	0	0%
OFICIO DEL HOGAR	360	2	362	24%
PROFESIONAL UNIV	0	0	0	0%
SECTOR INFORMAL	0	0	0	0%
SECTOR PRIVADO	0	0	0	0%
SECTOR PUBLICO	0	0	0	0%
OTROS	26	26	52	3%
	454	1055		0%
ERRORES	1	2	4	
TOTAL	458	1052	1510	

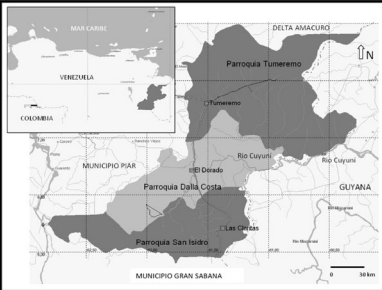


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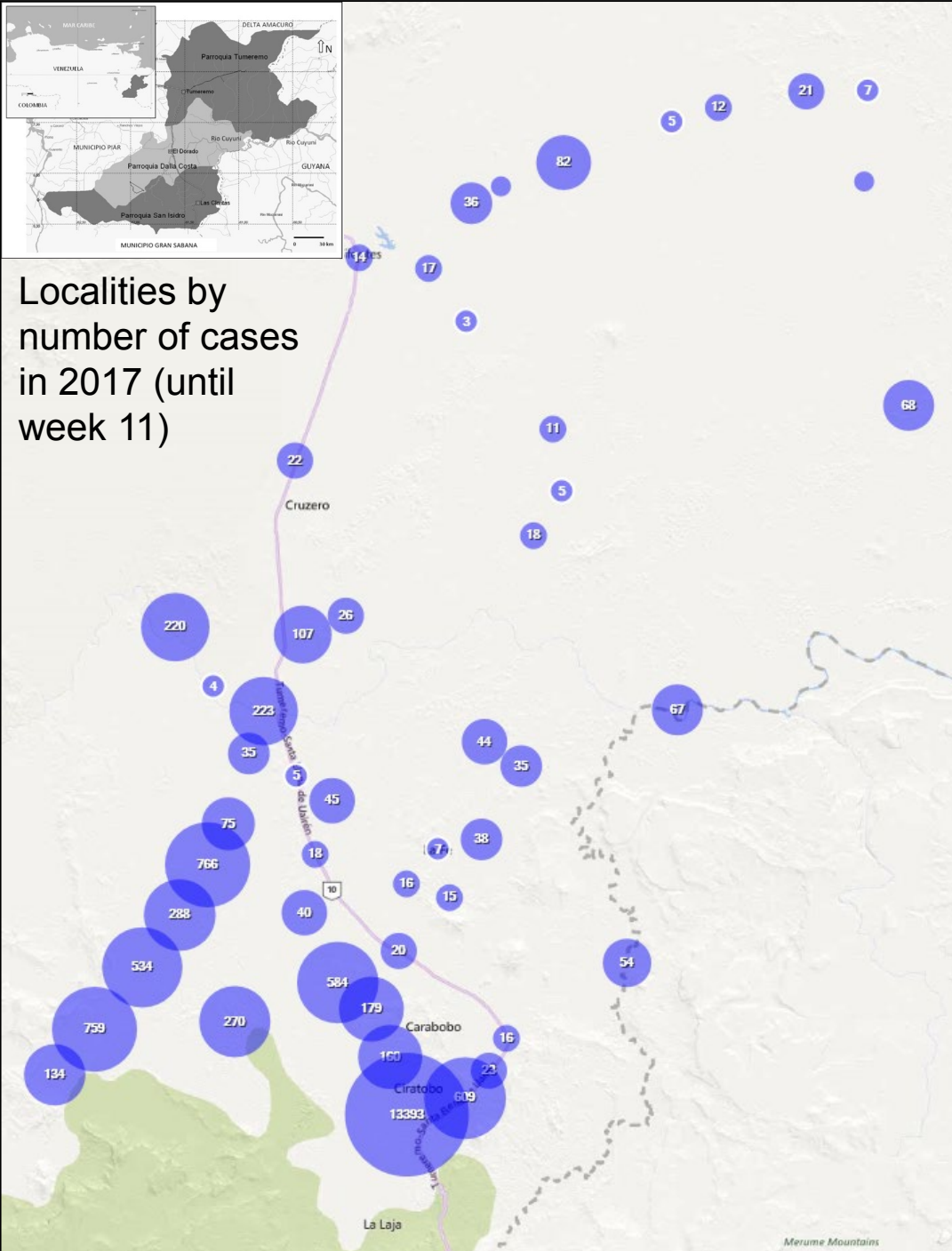


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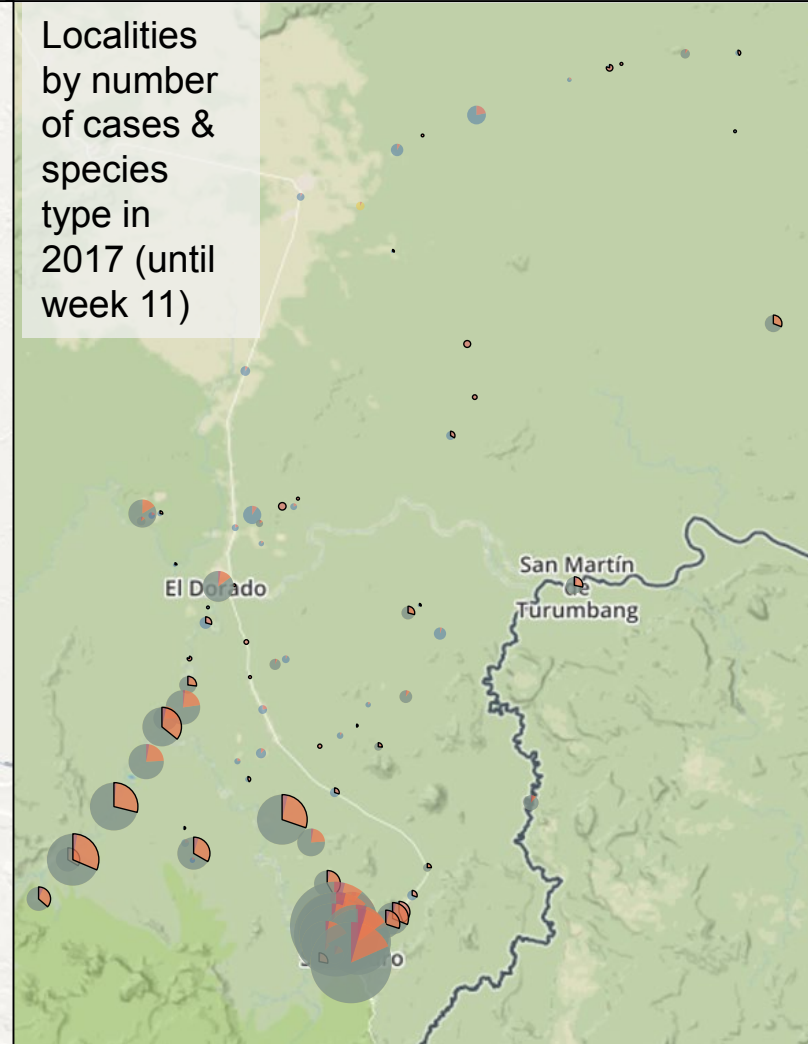
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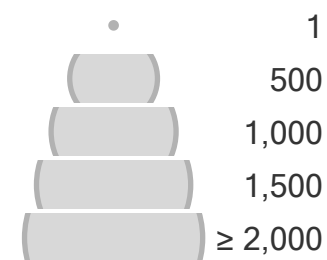
Localities by number of cases in 2017 (until week 11)



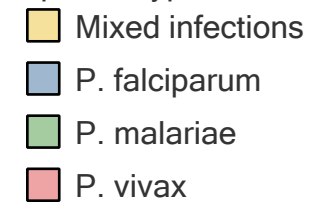
Localities by number of cases & species type in 2017 (until week 11)



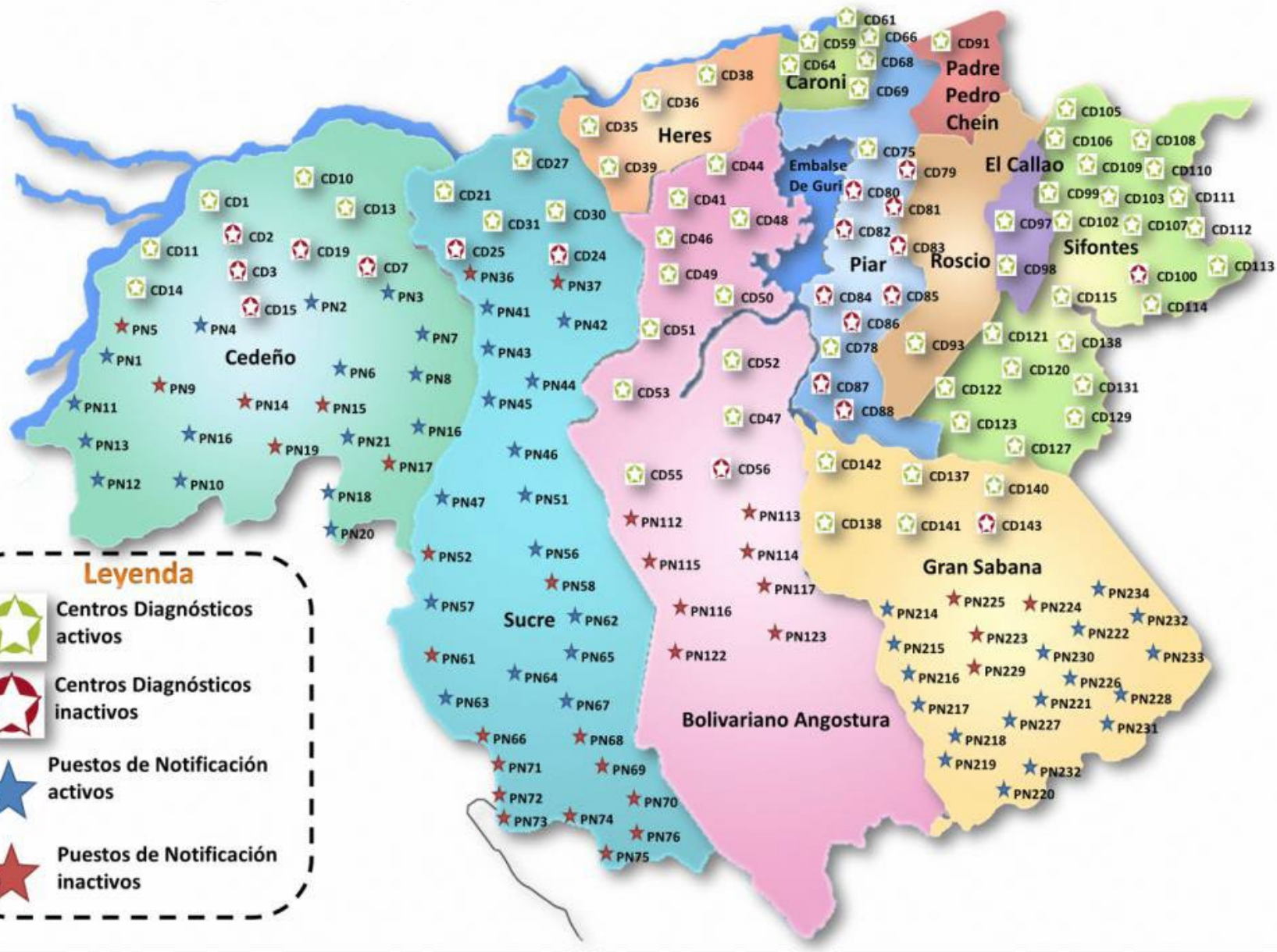
Number of Cases



Species type



Centros Diagnósticos y Puestos de Notificación – Estado Bolívar 2017



Access to diagnosis and treatment and workload in diagnostic posts

San Isidro, until week 11

Tiempo entre inicio de fiebre y toma		
numero de dias	n casos	%
<2	23388	41%
2	13691	24%
3	9971	17%
4	4848	8%
5	2317	4%
6	1216	2%
>6	2310	4%
	57741	

Tiempo entre toma y examen		
N° de dias	N° casos	%
<2	57707	100%
2	0	0%
3	1	0%
4	0	0%
5	0	0%
6	0	0%
>6	33	0%
	57741	

San Isidro, week 11

Número de casos por puesto de diagnóstico										
Microscopista	CoDigoDeVS		LAMINAS	Casos nuevos			Recaidas			ILP
				P.V.	P.F.	I.M.	P.V.	P.F.	I.M.	
SANTO DOMINGO (2)	CD120	SANTO DOMINGO	1760	40	18	1	333	8	0	23%
	VS173	JOSE ESPAÑA	0	0	0	0	0	0	0	
	Sub-Total		1760	40	18	1	333	8	0	23%
SALAZAR (1)	CD122	SALAZAR	309	58	2	6	28	0	0	30%
	VS163	NESTOR ROMERO	125	10	5	2	6	0	0	18%
	VS165	ALI LEON	57	8	3	0	3	0	0	25%
	VS166	DEGNI TOMEDez	66	6	2	0	3	0	0	17%
	Sub-Total		557	82	12	8	40	0	0	25%
GUARIMBA (1)	CD121	GUARIMBA	49	6	1	0	1	1	0	18%
	VS174	AMALIO MEDINA	62	3	2	0	1	0	0	10%
	VS164	ALBEY JIMENEZ	51	0	0	0	0	0	0	0%
	Sub-Total		162	9	3	0	2	1	0	9%
MANACAL (1)	CD129	MANACAL	100	11	7	1	6	0	0	25%
	VS161	EGUIN GARCIA	66	16	3	0	7	1	0	41%
	VS162	JONATHAN GONZA	63	7	3	1	0	0	0	17%
	Sub-Total		229	34	13	2	13	1	0	28%
Mesones (1)	CD123	MESONES	135	29	5	1	16	0	0	38%
	VS170	JOSE VILLAMEDIAN	78	9	0	0	7	0	0	21%
	VS167	FLOIRAN RIOBUEN	112	12	2	0	10	0	0	21%
	VS168	ANDRES CONTRERA	54	12	0	0	0	0	0	22%
	VS178		0	0	0	0	0	0	0	
	VS169	CARLOS SANCHEZ	63	8	0	0	0	0	0	13%
	VS171	RENE GONZALEZ	88	12	20	0	5	0	0	42%
	Sub-Total		530	82	27	1	38	0	0	28%
RIO (1)	CD131	RIO CUYUNI	0	0	0	0	0	0	0	



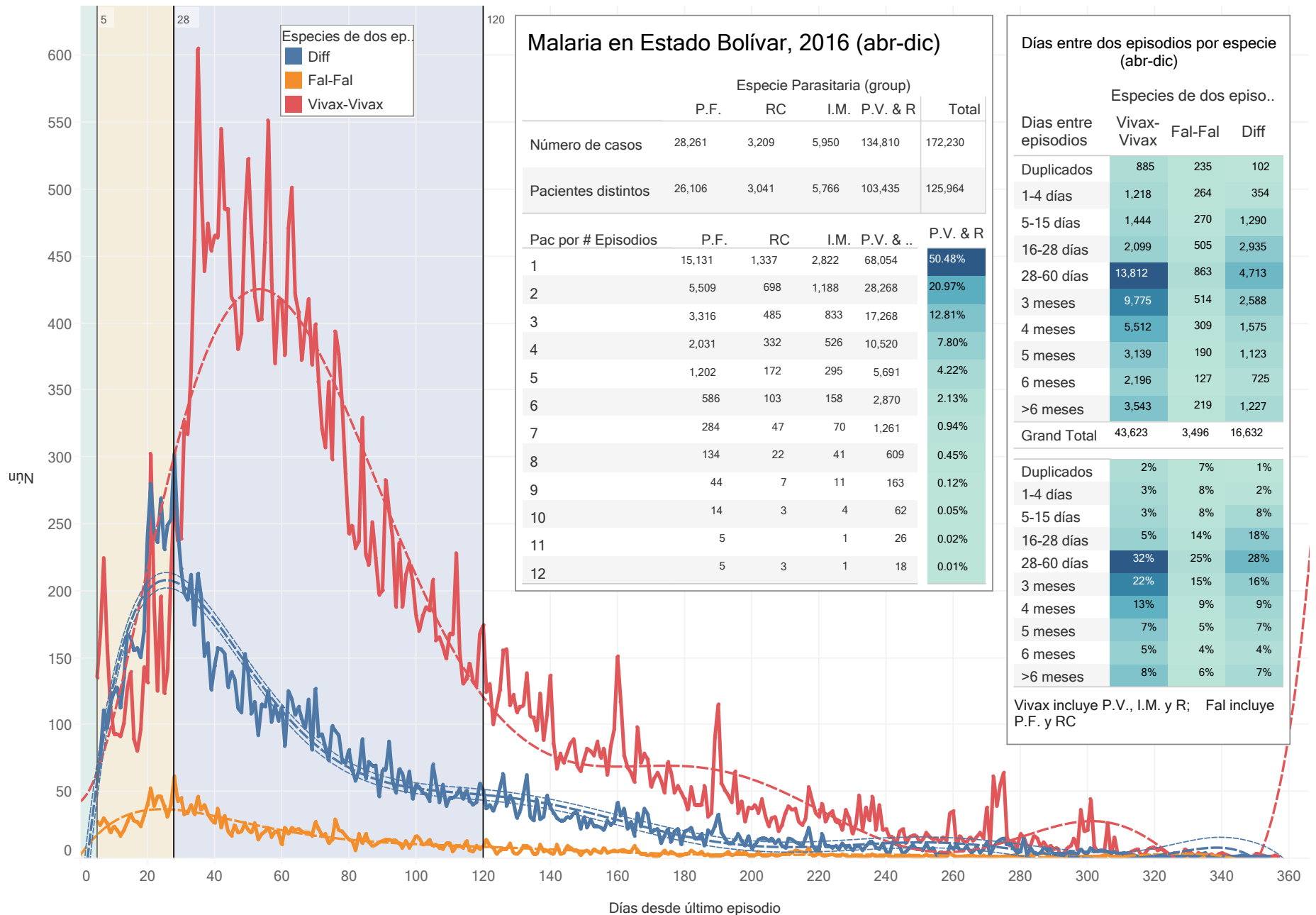
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Recurrencia de casos por tipo de especie en Estado Bolívar, 2016 (abr-dic)



Malaria en Estado Bolívar, 2016 (abr-dic)

	Especie Parasitaria (group)				Total
	P.F.	RC	I.M.	P.V. & R	
Número de casos	28,261	3,209	5,950	134,810	172,230
Pacientes distintos	26,106	3,041	5,766	103,435	125,964

Pac por # Episodios	P.F.	RC	I.M.	P.V. & R	P.V. & R
1	15,131	1,337	2,822	68,054	50.48%
2	5,509	698	1,188	28,268	20.97%
3	3,316	485	833	17,268	12.81%
4	2,031	332	526	10,520	7.80%
5	1,202	172	295	5,691	4.22%
6	586	103	158	2,870	2.13%
7	284	47	70	1,261	0.94%
8	134	22	41	609	0.45%
9	44	7	11	163	0.12%
10	14	3	4	62	0.05%
11	5		1	26	0.02%
12	5	3	1	18	0.01%

Días entre dos episodios por especie (abr-dic)

Días entre episodios	Especies de dos episo..		
	Vivax-Vivax	Fal-Fal	Diff
Duplicados	885	235	102
1-4 días	1,218	264	354
5-15 días	1,444	270	1,290
16-28 días	2,099	505	2,935
28-60 días	13,812	863	4,713
3 meses	9,775	514	2,588
4 meses	5,512	309	1,575
5 meses	3,139	190	1,123
6 meses	2,196	127	725
>6 meses	3,543	219	1,227
Grand Total	43,623	3,496	16,632

Duplicados	2%	7%	1%
1-4 días	3%	8%	2%
5-15 días	3%	8%	8%
16-28 días	5%	14%	18%
28-60 días	32%	25%	28%
3 meses	22%	15%	16%
4 meses	13%	9%	9%
5 meses	7%	5%	7%
6 meses	5%	4%	4%
>6 meses	8%	6%	7%

Vivax incluye P.V., I.M. y R; Fal incluye P.F. y RC

RC-Recrudescencias; R-Recaidas

Critical gaps (1)

- Insufficiency and stock out of anti-malarials
- Human resources for diagnosis/treatment, surveillance and vector control massively overburdened
 - microscopists examining over 120 slides in a day – recommended is 60 per day
- Lack of vector control intervention
 - Bed nets and insecticides for IRS are not available
- Access to prompt diagnosis and treatment limited in areas
 - RDTs not available
- Under utilization of other resources – laboratory capacity in IVSS hospitals but not conducting malaria tests



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Critical gaps (2)

- Precarious infrastructure of diagnostic posts in mines
- Logistical gaps for providing diagnosis and treatment (microscopes, reagents, motorcycles, boats, etc.)
- **Massively insufficient response**
- Limited investigation and follow up of cases



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Malaria Situation in Bolivar State is an epidemic which requires a response at a scale much higher than the current one.



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PAHO support during 2017

- CHA Mission (March 5 - 25)
 - Strategic recommendations
 - Needs identified (surveillance, diagnosis, case management, vector control)
 - Technical assistance to improve diagnosis and treatment
 - Support in epidemiological analysis at local level
 - Training provided
 - Urgent update in priority guidelines - treatment
 - Collection of samples started for evaluating of antimalarial resistance



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PAHO support during 2017

- Financial support provided to local health staff for response (country office)
- Purchase of medicines with capitalization account (SF)
- Engagement for funds needed for purchase of medicines, rapid diagnostic tests (RDTs) & impregnated mosquito nets (Global Fund)
- Donation of anti-malarials from Regional warehouse
- Donation of RDTs (Alere / LATAM) - 200,000
- Engagement with JICA for donation of RDTs - 100,000
- Mobilization of technical and financial support for antimalarial resistance



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Proposed Actions (1)

Based on current recommendations

- Through PAHO's Strategic Fund
 - support for the acquisition of health products (medicines, Bednets, RDTs)
- Engagement with donors (Global Fund, BMGF) Mobilization of external funds for:
 - strategic health products, especially those that the country can't acquire due to limited availability of foreign exchange: **medicines, RDTs and bednets**
 - Boots on the ground
 - Other operational gaps (vehicles, microscopes, etc.)
- Provide technical support for:
 - **Organization of the response at the local level**
 - Capacity building (diagnosis, monitoring, management)
 - Implementation of RDTs and bednets as immediate response and long term strategy
 - Surveillance and monitoring of crucial aspects - resistance, RDTs, microscopy, study possible decreased sensitivity to anti-malarials in *P. vivax* and *P. falciparum* and review treatment policies accordingly
 - Update priority technical guidelines needed for immediate response
 - Risk communication



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Proposed Actions (2) where guidance is needed

- MDA (Mass Drug Administration)
 - **Objective:** Reduce burden to manageable levels
- Reasons for MDA
 - Malaria burden extremely high & saturates the health system
 - Health system adequate to needs of the area – normal conditions
 - Strong health system with prompt surveillance in place
 - Good access to mining sites and hospitals
 - Case detection and treatment reached a limit - coverage and access in some high burden settings. Further improvement limited
 - Limited options under current situation
 - Not intervening only likely to worsen the public health crisis

Proposed Actions (2) where guidance is needed

- Operational details about MDA
 - Using ACT (Dihydroartemisinin-Piperaquine)
 - AL+PQ is current first line treatment
 - In San Isidro and El Callo
 - Miners and others living in mining sites
 - Three rounds with a gap of one month each
 - Possible deviation – use of Chloroquine if ACTs not available?
- Is taking alcohol a contra-indication for anti-malarials
 - Miners most at risk and don't complete treatment
 - Have a conception not to take medicine with alcohol
 - Prefer alcohol over medicine, given arduous work conditions