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Results of National Strategic Plans For Dog-Mediated Rabies Elimination

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Tbilisi, Georgia



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- The territory of Georgia covers 69,700 km² and population is around 4 million
- 12 regions, 64 districts, more than 3000 villages
 - Owned dogs/cats 300,000 – 350 000
 - Stray dog pop. probably 150,000 – 200.000
- Rabies budget is about 800,000 GEL (included vaccines and salaries of veterinarians and technicians)

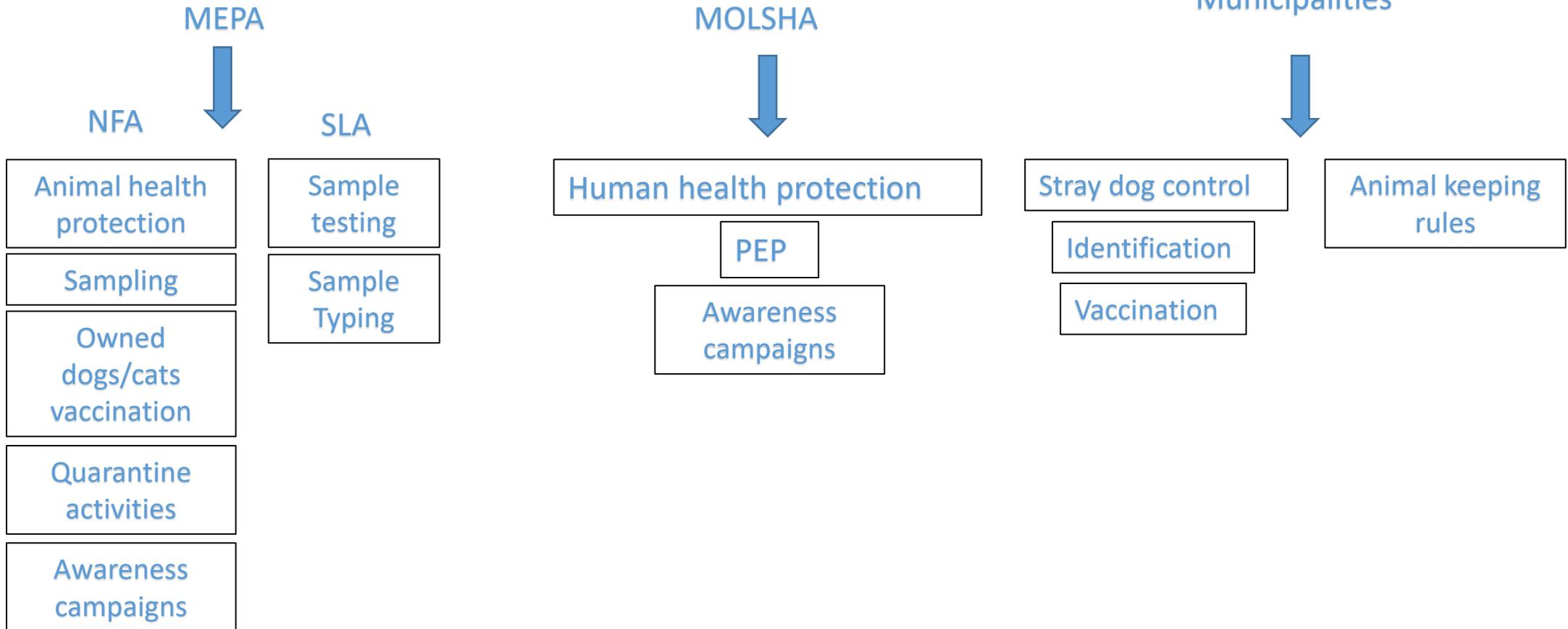
About Georgia





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Responsibilities





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Intervention

- From 2006 till 2012 measures against rabies were administered only in quarantine area
- Since 2013, Georgia re established rabies prophylactic vaccination (owned animals)
 - 2013 – vaccination campaign planed in high risk areas
 - From 2014 –vaccination covers whole Georgia (almost 3000 villages of 12 regions)

NFA conducts different kind of activities against rabies

- Mass vaccination of dogs and cats
- Passive surveillance
- Post-vaccination sersurvey
- Awareness campaigns and KAP (Knowledge, Attitudes and Practice) studies
- Mandatory activities in quarantine area



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Vaccination Planning

Each year ministry approves budget for animal health protection

Rabies Vaccination is planned based on

- Animal population data
- Report from the previous year vaccination (sum of vaccinated and unvaccinated animals)
- ❖ Vaccines are purchased by governmental tender
- ❖ 650 vets/technicians are hired every year for veterinary activities (including rabies vaccination)
- ❖ Activities are carried out by door by door principle and its free of charge





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Cold Chain Principle



Attantion ! Rabies vaccination is free of charge !!!



საქართველოს
ეროვნული
საანტიბიოტიკული
ცენტრი

Вакцинация против бешенство бесплатно!!!

Vaccination Form

№	Animal Owner (Name, Surname)	ID number	Telephone number	Breed	Identical sign (ID, Color, etc.)	Number of Vaccinated Animals		Number of Unvaccinated Animals		Signature of owner	Note
						Dog	Cat	Dog	Cat		
1						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
5						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
6						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
7						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
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10						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
11						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
12						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
13						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
14						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
15						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
16						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
17						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
18						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
19						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
20						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
total											

Data on rabies vaccination 2019 - Shida kartli Region

Village code	Municipality	#	Village	Holding	vaccinated		Unvaccinated	
					Dog	Cat	Dog	Cat
1511164	ქარელი	1	აბაზო	19	27	9	0	0
1511169	ქარელი	2	აბისი	13	19	6	4	2
1511158	ქარელი	3	აბისისთავი	16	19	1	1	0
1511162	ქარელი	4	ავლევი	16	20	5	0	0
1511156	ქარელი	5	არადეთი	20	22	7	1	0
1511172	ქარელი	6	ატოვი	11	17	3	0	0
1511171	ქარელი	7	აფნისი	6	10	2	2	0
1511166	ქარელი	8	ახალსოფელი	93	134	23	9	22
1511132	ქარელი	9	ბაწი	1	3	0	0	0
1511175	ქარელი	10	ბებნისი	45	59	10	2	0
1511154	ქარელი	11	ბერძენაული	16	26	1	0	0
1511155	ქარელი	12	ბრეთი	67	84	25	4	1
1511177	ქარელი	13	ბრეთის მეურნეობა	20	28	3	0	0
1511152	ქარელი	14	ბრემა	17	25	6	2	0
1511130	ქარელი	15	გვერძინეთი	8	7	3	0	0
1511153	ქარელი	16	დაბა აგარა	93	108	25	0	0
1511181	ქარელი	17	დვაწი	51	63	7	2	1
1511145	ქარელი	18	დირბი	131	187	47	6	6
1511163	ქარელი	19	დოდლაური	12	19	1	0	0
1511129	ქარელი	20	ელბაქიანთ კარი	7	8	2	0	1
1511113	ქარელი	21	ვედრება	20	33	7	2	10
1511101	ქარელი	22	ზემო შაქმაქეთი	15	23	5	0	1
1511144	ქარელი	23	ზიმო ხიოთორი	41	45	25	3	0

Signatures: 1. _____
2. _____



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World Rabies Day – raising awareness

In 2013, World Rabies Day (September 28) was celebrated for the first time by NFA

- Vaccination in all regional centers
- Vaccination in shelters
- Activities related to awareness raising (booklets, TV and radio broadcast, entertainment events, schools)





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World Rabies Day – Raising Awareness





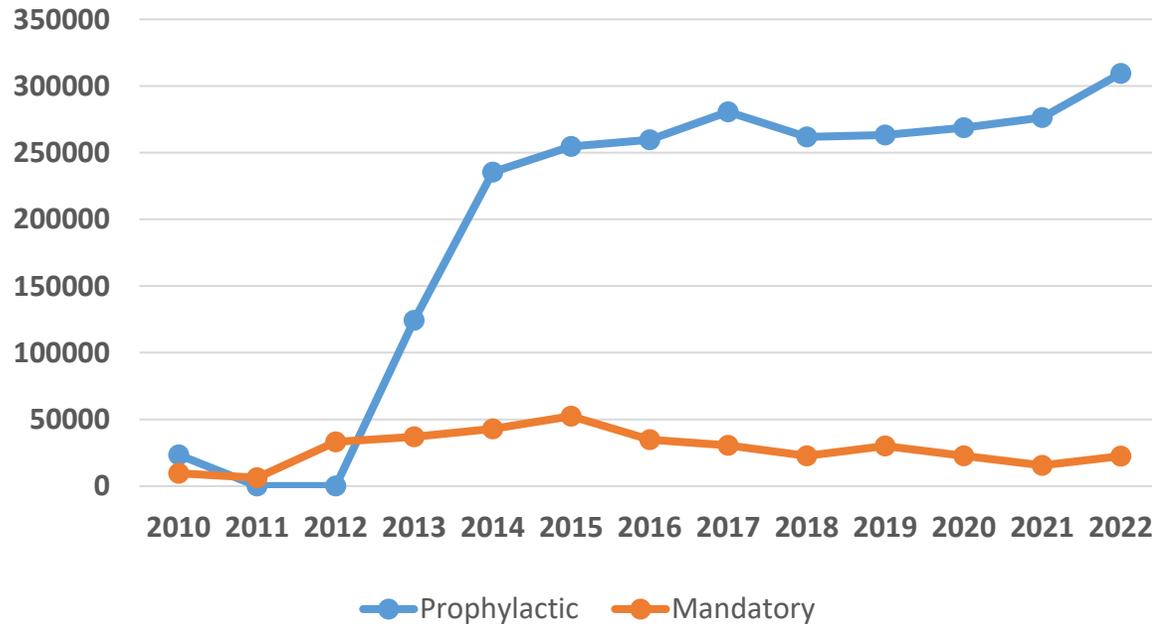
- Government Decree 1838 „Preventive measures to be conducted against Rabies in 2019-2023” is in place;
- A new Prophylactic quarantine rule on rabies was approved in 2023;
- It was determined by law that the rabies vaccines must be high quality (it must be registered by the European Medicines Agency).
- Created NAITS module (working version) for registration of domestic animals;
- Governmental organizations, Municipal services and non-profit organizations drafted a law on domestic animals (welfare), which was submitted to the legislative body for approval.



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Rabies Vaccination

Rabies Prophylactic and Mandatory Vaccination



Prophylactic vaccination of rabies 2013 -2022

Year	Village	Owner	Dog	Cat	Cattle	total
2013	1,317	-	90,367	33,835	0	124,202
2014	2,379	126,037	170,861	64,593	0	235,454
2015	2,599	135,189	189,606	65,193	0	254,799
2016	2736	134,026	195,720	63,986	0	259,706
2017	2889	128214	195211	68359	17006	280576
2018	3212	129181	194086	67823	0	261909
2019	3100	126565	195843	67339	0	263182
2020	3100	129125	199049	69589	0	268638
2021	3022	123602	200822	75513	0	276335
2022	3191	128962	211177	86754	11473	309404



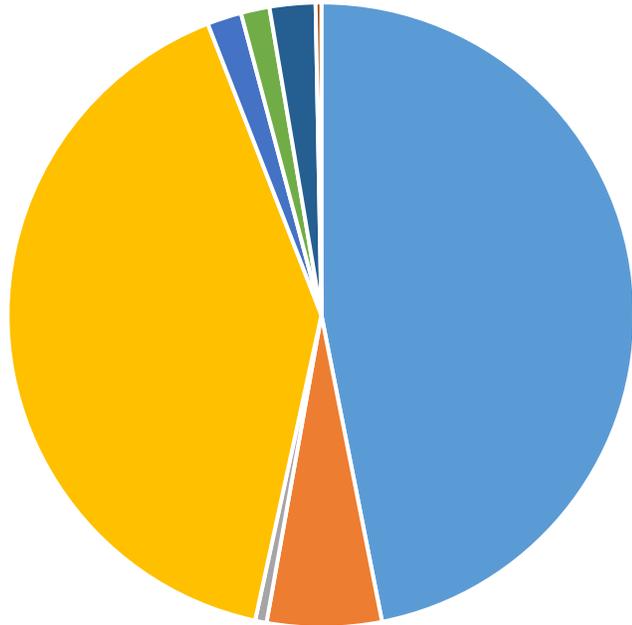
Cases of rabies after vaccination										
years	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cases in absolute numbers	116	119	103	53	40	47	50	54	40	31
Decrease of cases compared to the indicator year (2013)	-	+ 2	- 11,2	- 54,3	- 65,5	-59,5	-56,8	-53.4	-65.5	-73
Cases in dogs	74	62	56	27	19	24	31	29	25	23
Decrease of cases compared to the indicator year (2013)	-	-16,2	- 24,3	- 63,5	-74,3	-67,5	-58,1	- 60.8	- 66.2	- 68



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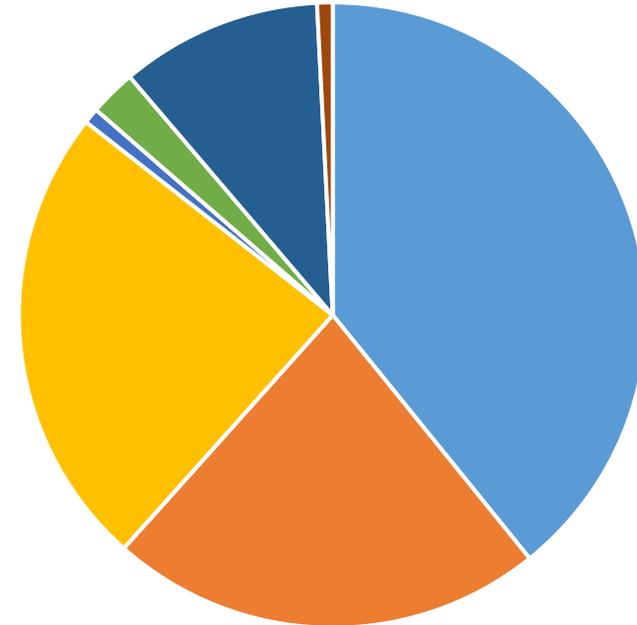
Cases by Animal Species

2013 – 2015 Years



Owned dog Stray dog Cat Cattle Equine Pig Wild Other

2020 – 2022 Years

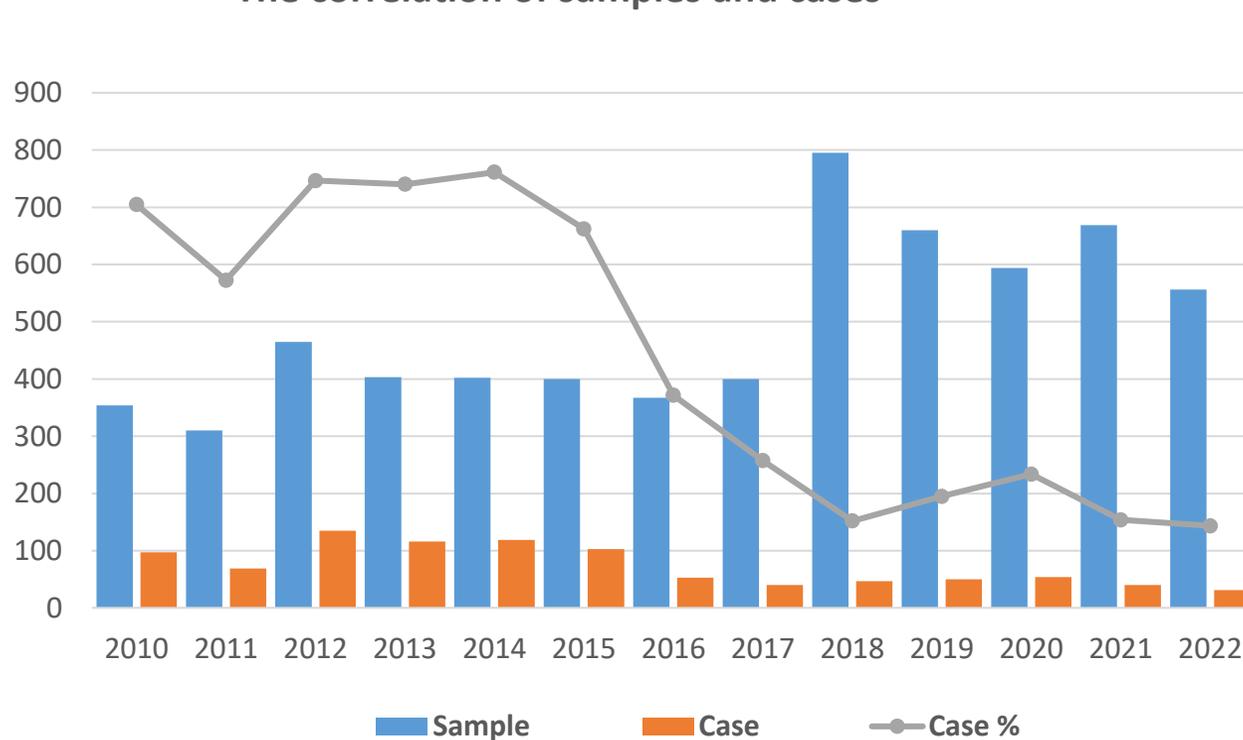


Owned dog Stray dog Cat Cattle Equine pig Wild Other



Submitted and Positive Samples

The correlation of samples and cases



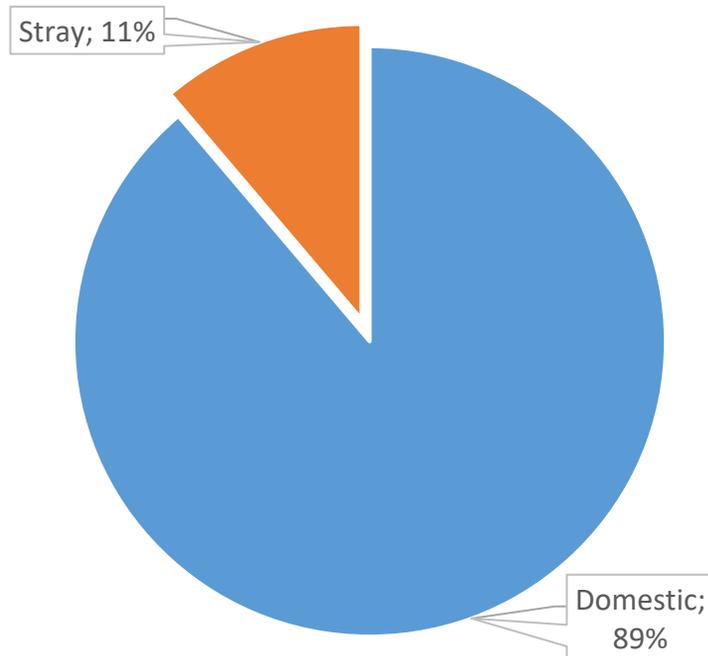
- In 2010-2019 about **6375** clinical samples were submitted to the laboratory
- Rabies was confirmed in **954** samples (15%)
- The average number of samples to be tested on the rabies during 13 years - 490
- Average positive – 15%
- Positive in 2014 – 29 %
- Positive in 2022 – 5.5 %



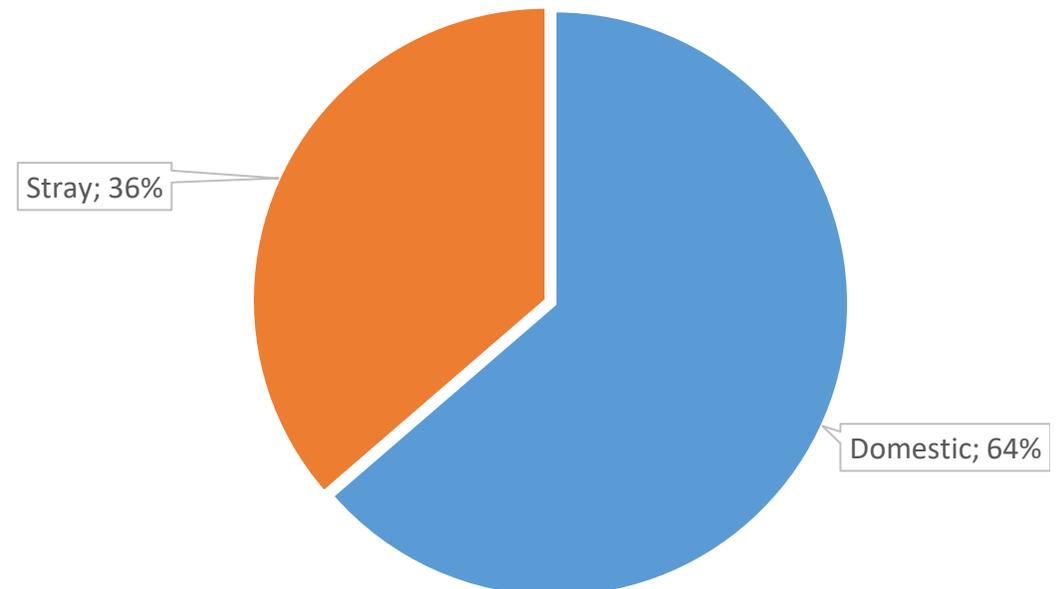
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Cases of Rabies in Dogs

Dog Rabies Cases 2013 - 2015

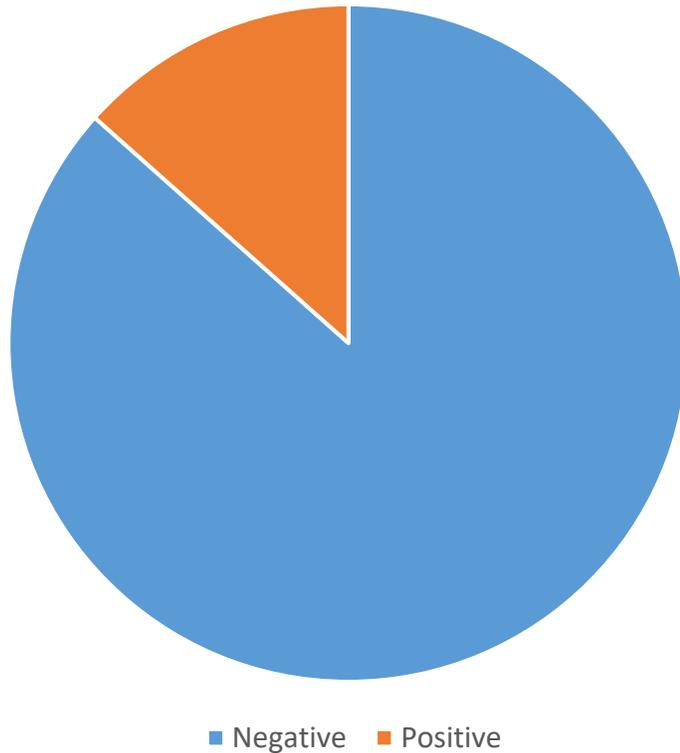


Dog Rabies Cases 2020 - 2022





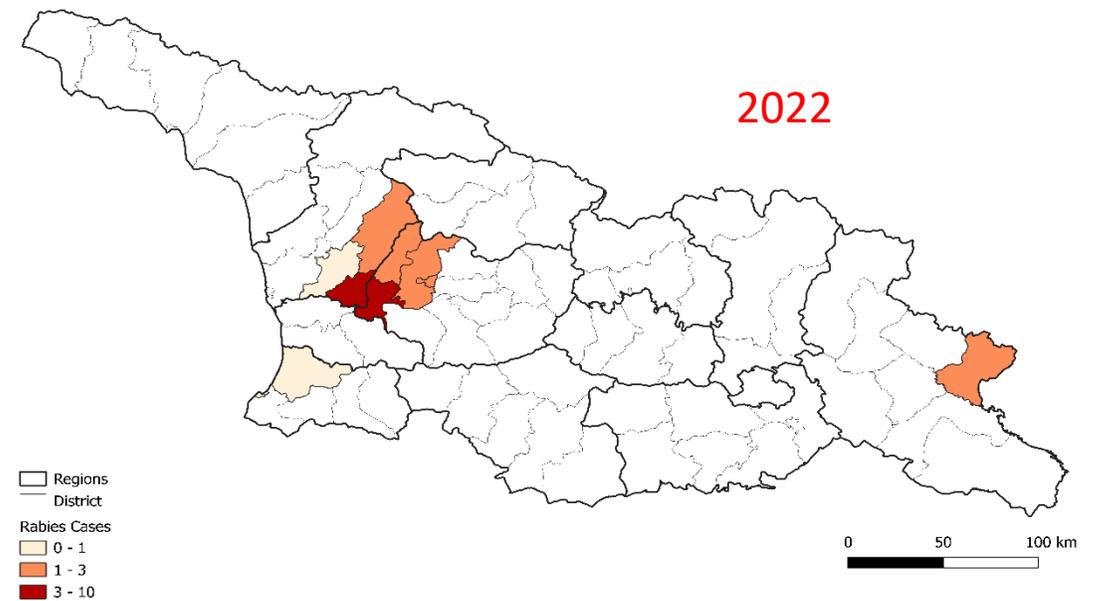
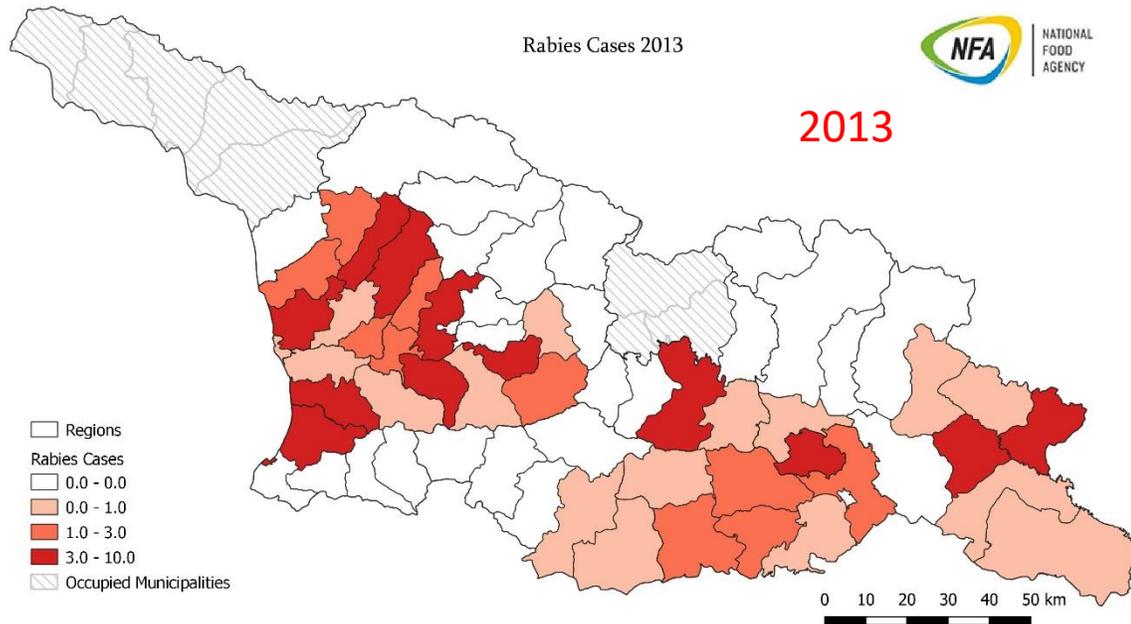
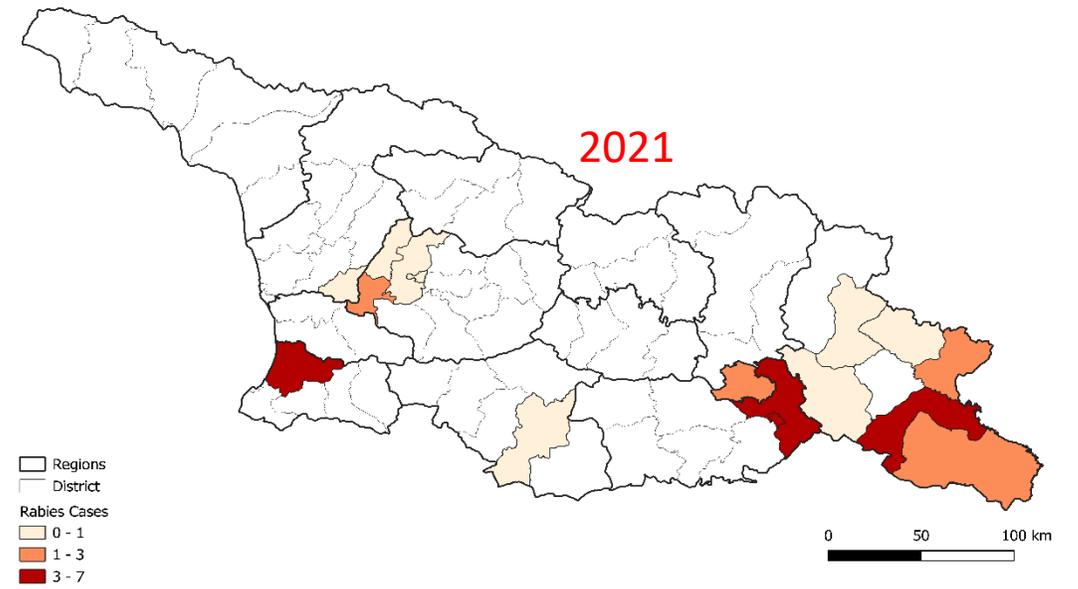
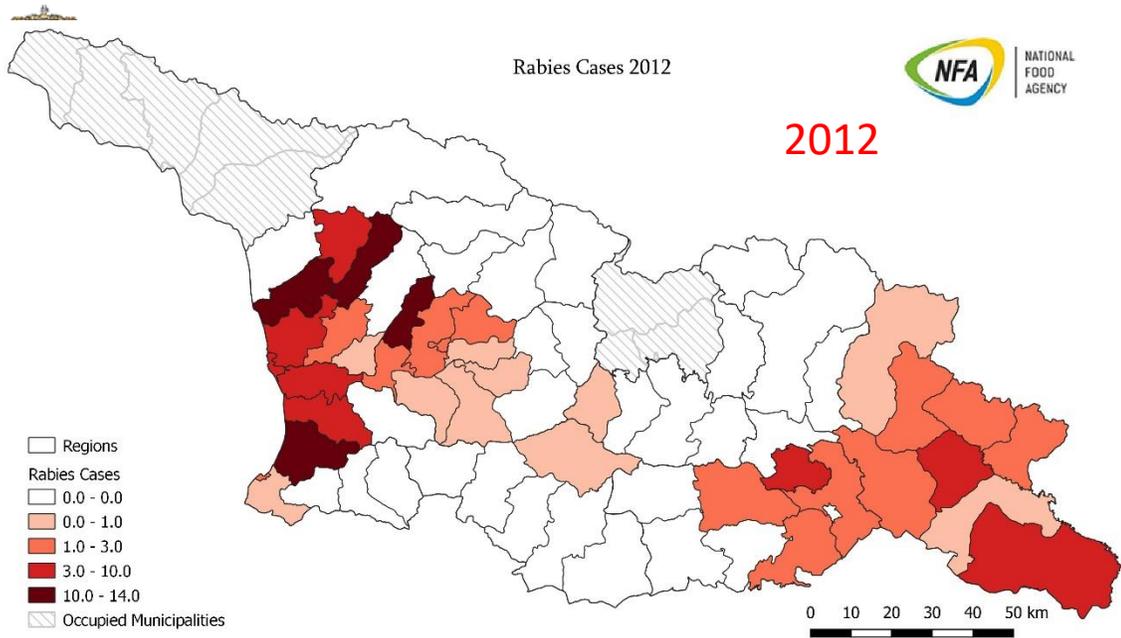
Positive cases in wild animals 2013 - 2022



- In 2013 – 2022, 261 wild animal sample was tested, out of them 13.4% (35) was positive

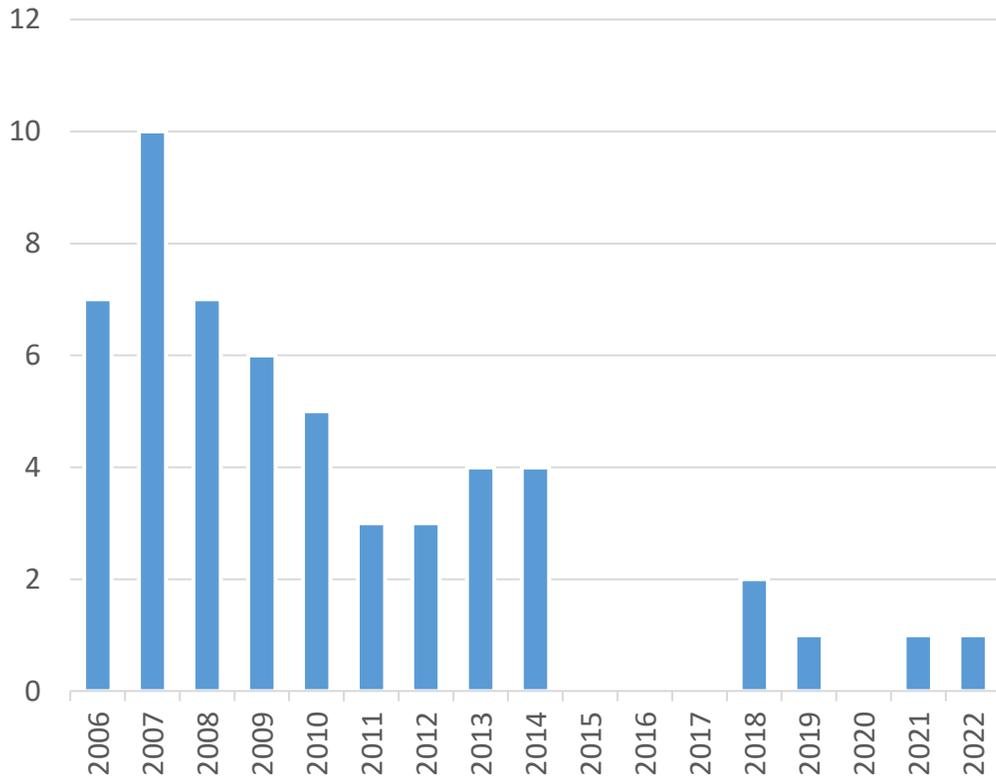
➤ Positive cases according to wild species

- Jackal – 66 %
- Wolf – 17 %
- Fox – 5.7 %
- Other – 11.4 %





Human Cases 2006 -2022 years



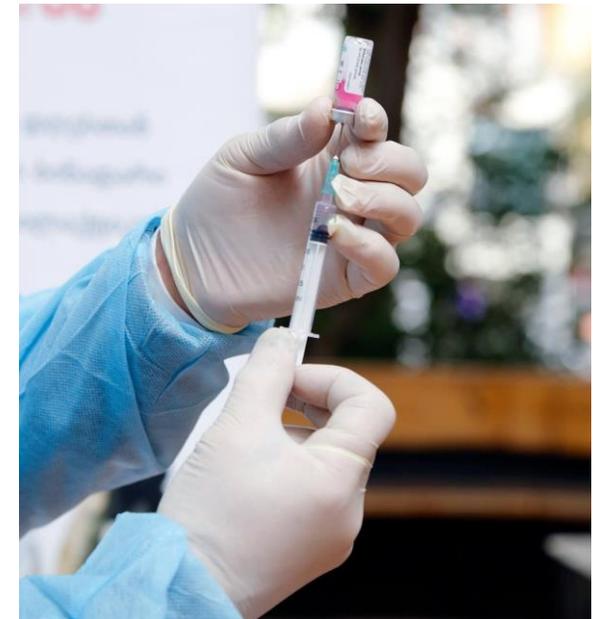
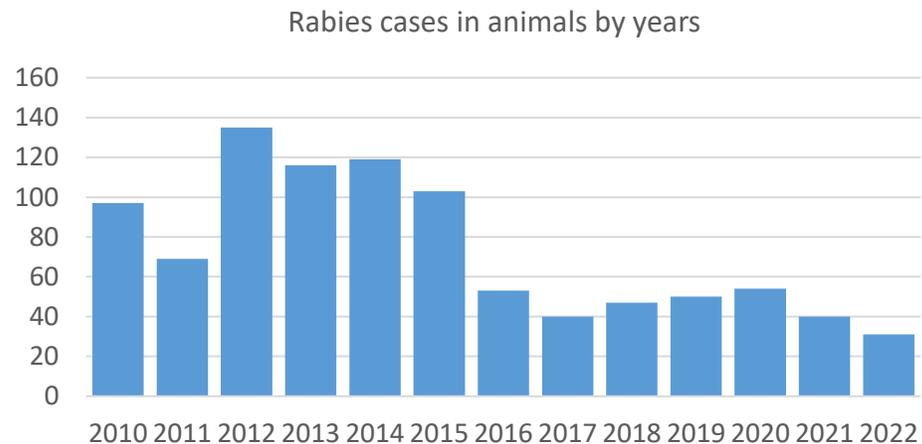
- In 2006 – 2022 54 human rabies cases were confirmed
- 2015 – 2017 and 2020 no human cases registered
- 2018 – 2 human cases 1 from jackal attack in Gali, Abkhazia (uncontrolled territory) 1 in Tbilisi (stray dog)
- 2019 – 1 case in Gali, Abkhazia (uncontrolled territory)
- 2022 – 1 human case - Attack from stray dog



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Conclusions

- Massive vaccination conducted past years has helped to reduce the detection of rabies cases:
In total by 73% and in dogs by 68%.
- Reduce of territorial manifestations of the disease
- Reduce hydrophobia in human





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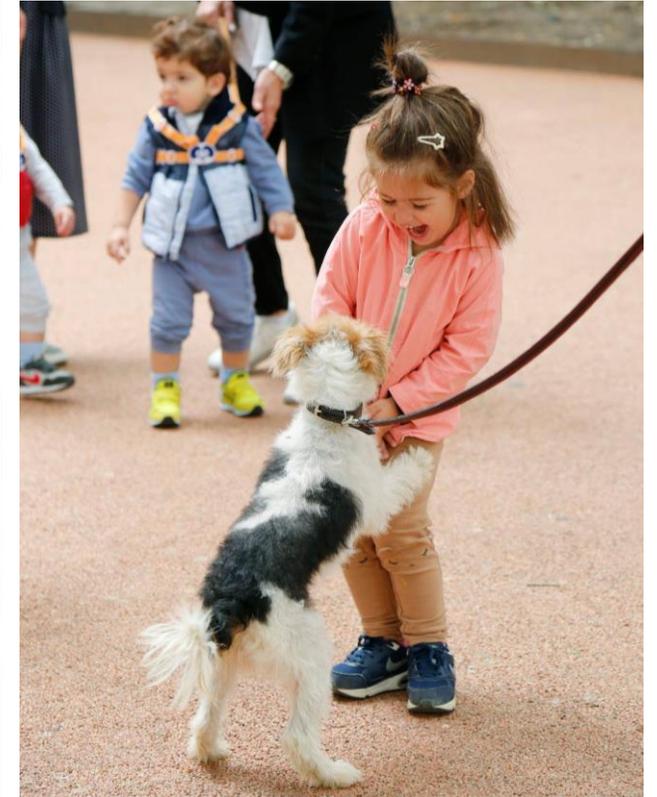
Conclusions

- ***In order to eliminate dog-mediated rabies, complex measures should be taken***
 - Increase awareness among population
 - Increase dog vaccination in country wide (owned and stray dog)
 - Control stray dog population (vaccination, identification, sterilization)
 - No Dog identification in whole country (only in Tbilisi)
 - Lack of animal shelters – only 7 registered shelter
 - Regional approach for rabies control (Georgia, Azerbaijan, Armenia, Turkey)
 - Increase surveillance on rabies in wild animals
 - Oral vaccination of wild animals



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Thank You For Your Attention



World Rabies Day – Georgia