

On reindeer infectious diseases

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Reindeer herding and diseases



Tundra



Locals



Nowadays (eradication of Anthrax outbreak in Yamal in 2016)

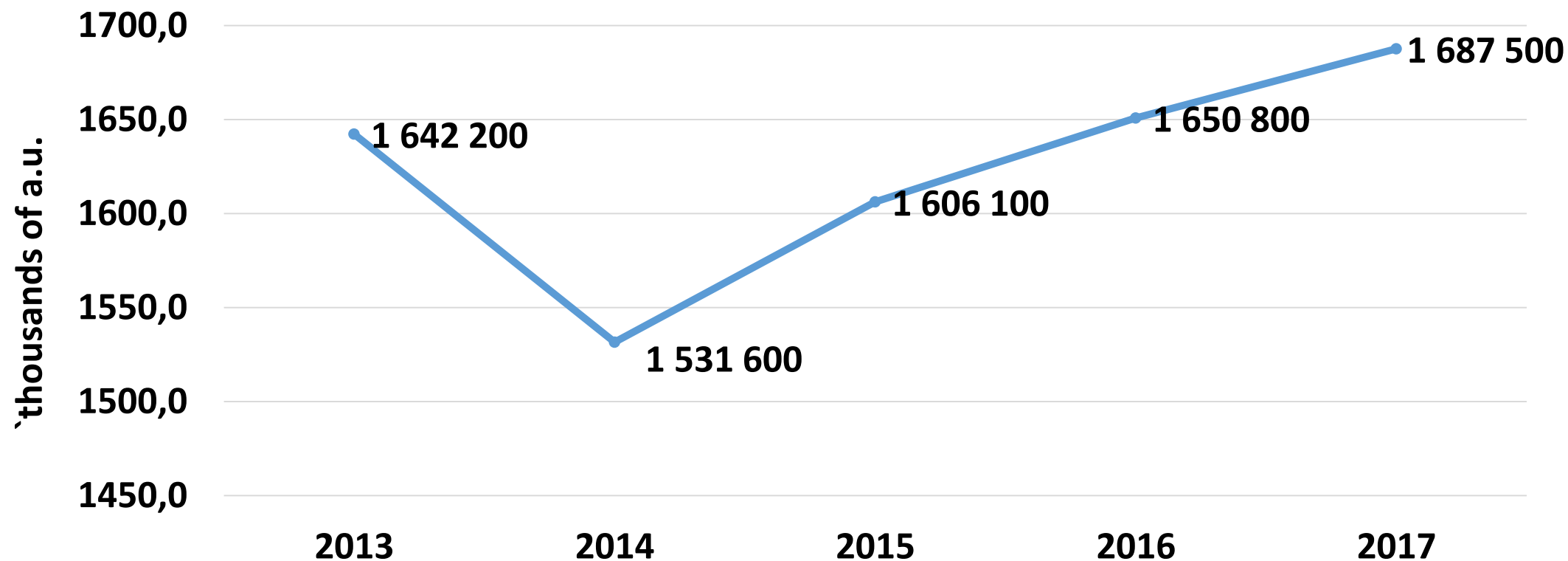


Domestic reindeer population

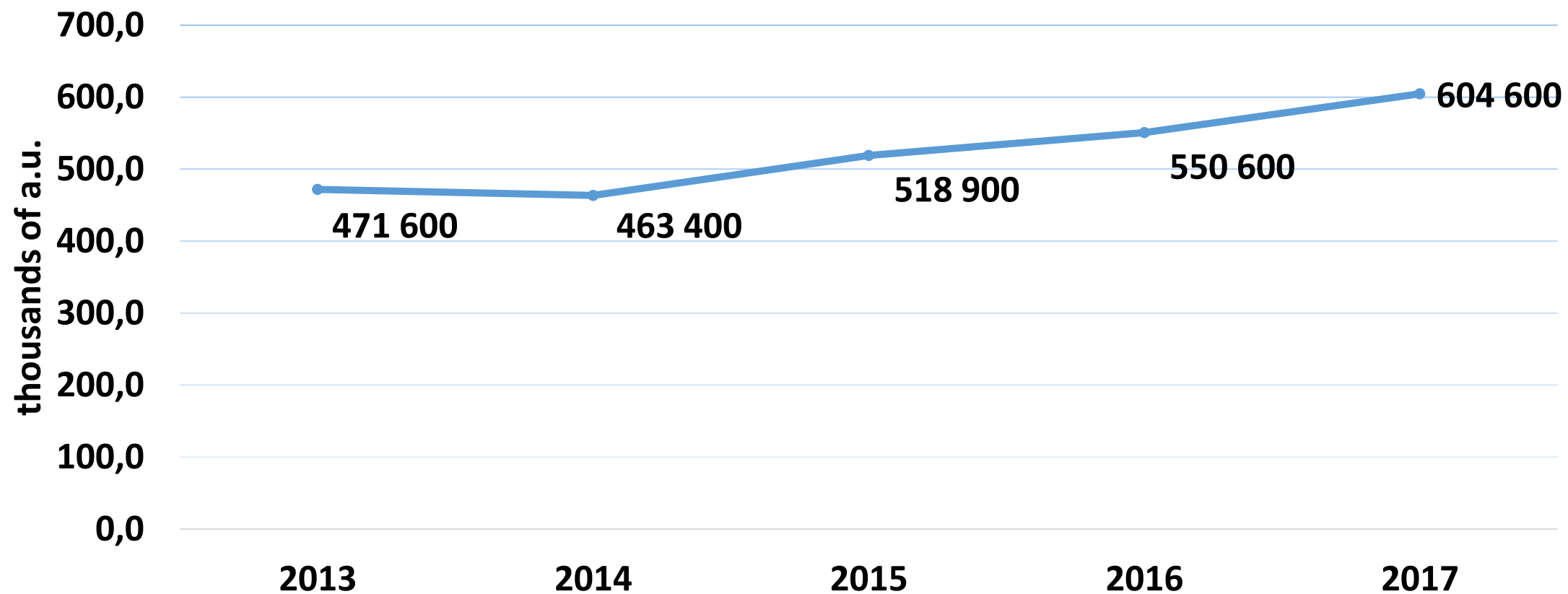
Year	1961	1981	2017
Population	196 000	924 000	1 687 500

Domestic reindeer population

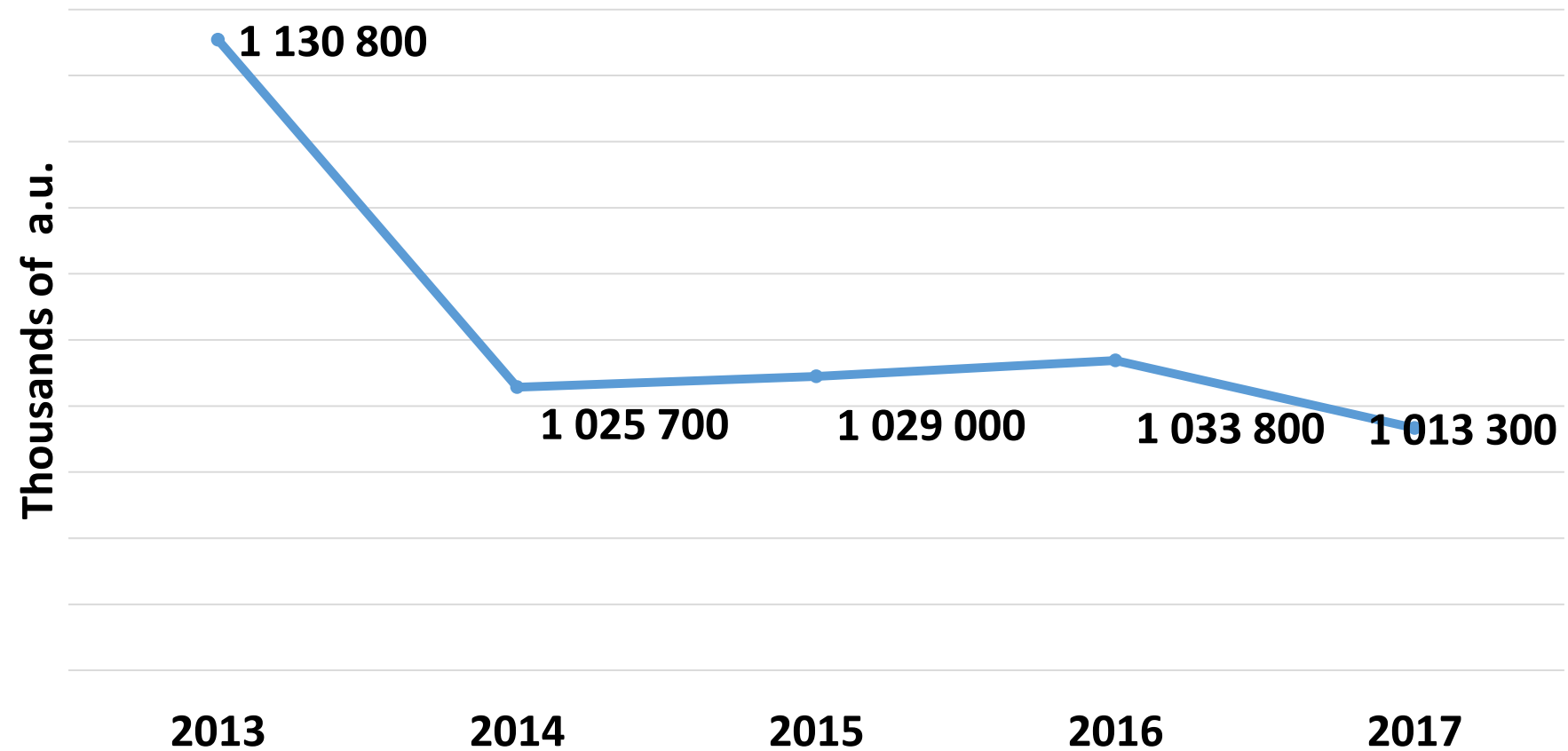
All the farms



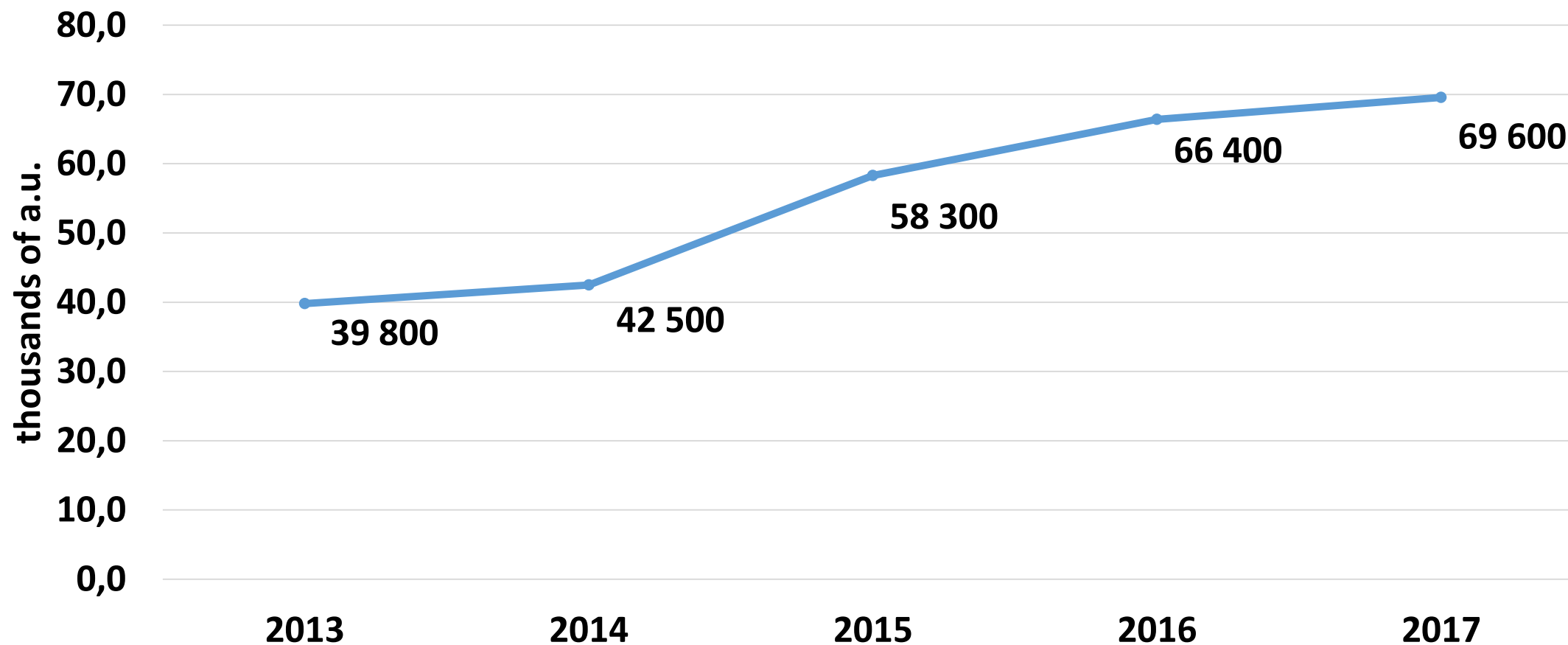
Population at private farms



Population at agricultural organizations

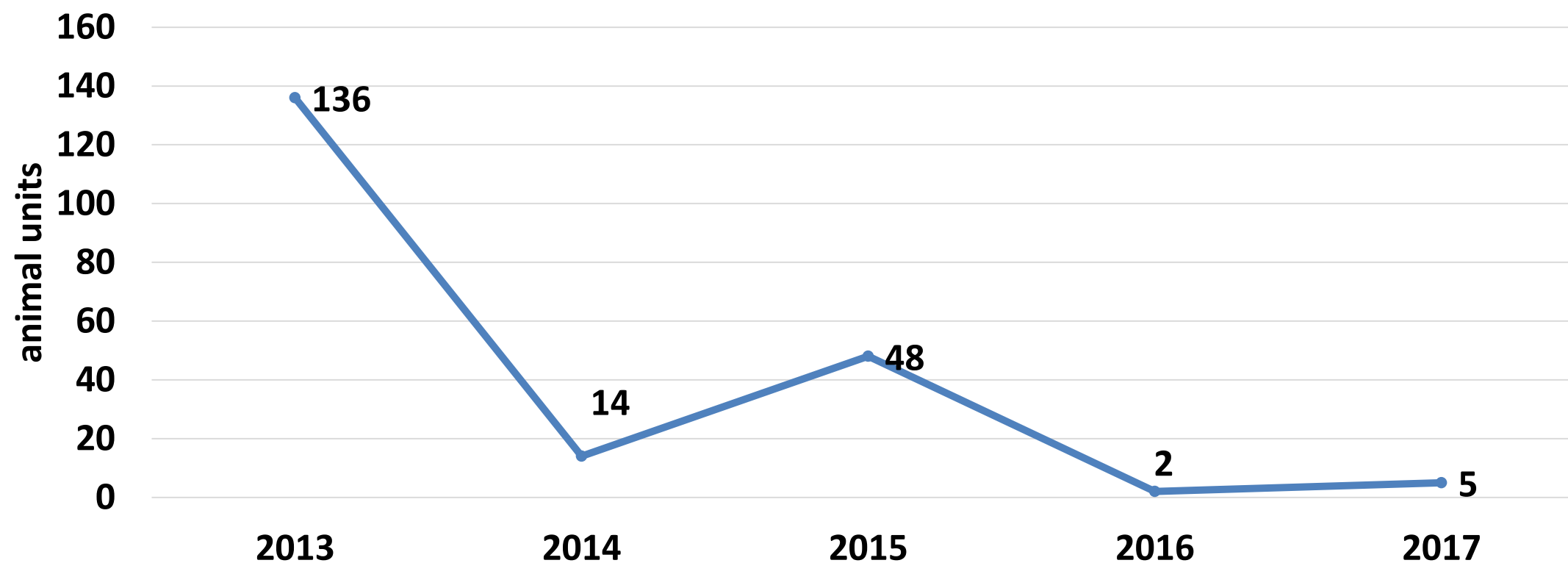


Population at self-employed individuals



Rabies

Amount of infected and dead from rabies



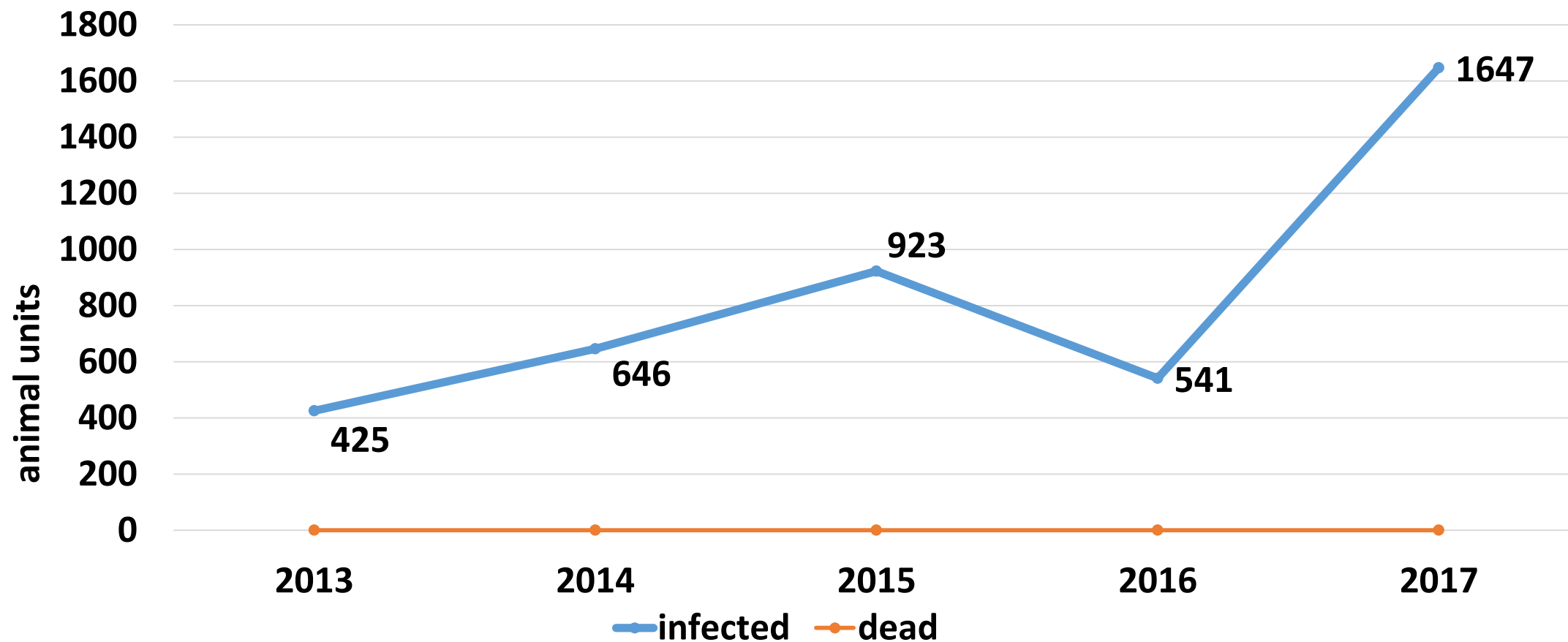
Treatment: vaccine «Rabisin», Merial



Preventive measures

- Dogs are not allowed in the reindeer farms
- Control of raccoons and raccoon dogs' population
- Vaccination

Brucellosis



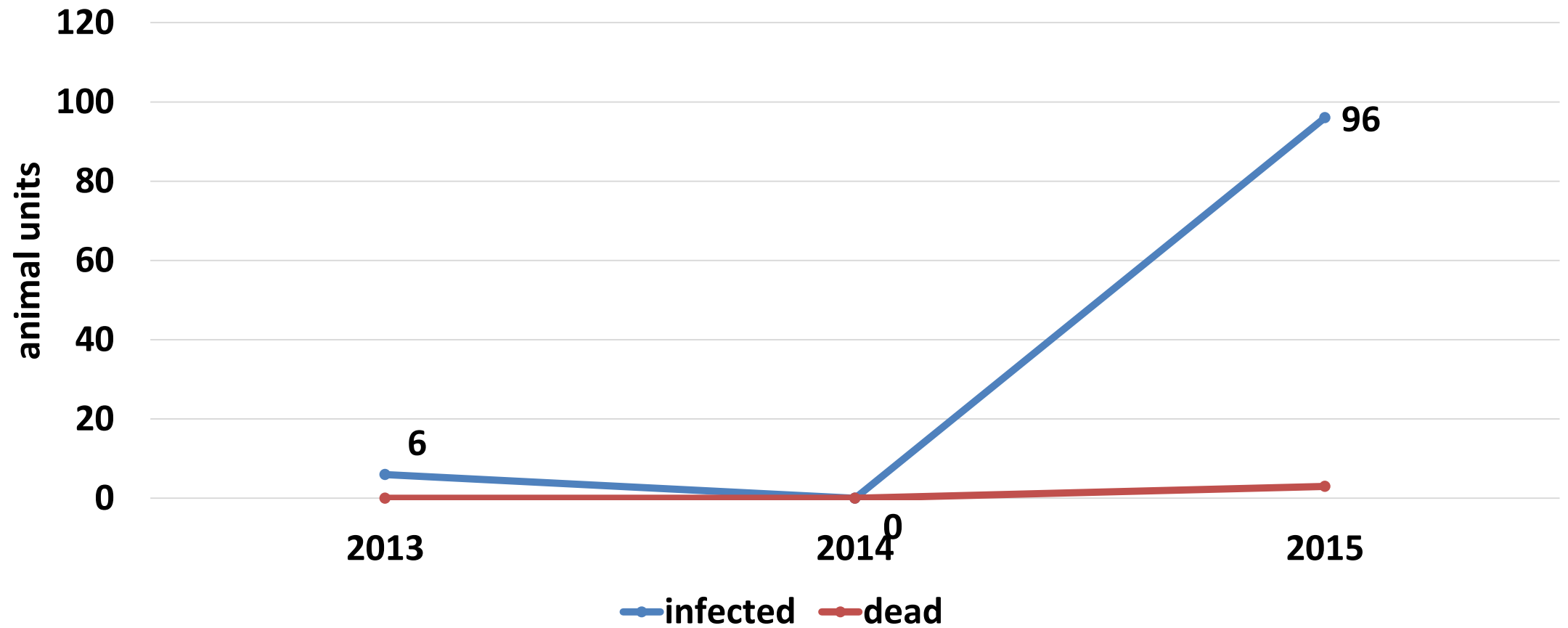
Brucella Abortus Strain Vaccine

- A single vaccination of strain 19 protects 66-94% of vaccinated reindeer for a period about 8 months.
- The freeze-dried vaccine from strain 82 protects 94% of reindeer after 7 months and 83% after 9 months.

Preventive measures and control

- sanitary conditions at reindeer farms
- good conditions for keeping animals
- contact with cattle is not allowed for reindeer
- early disease detection
- vaccination
- reindeer isolation and slaughter infected animals

Tuberculosis



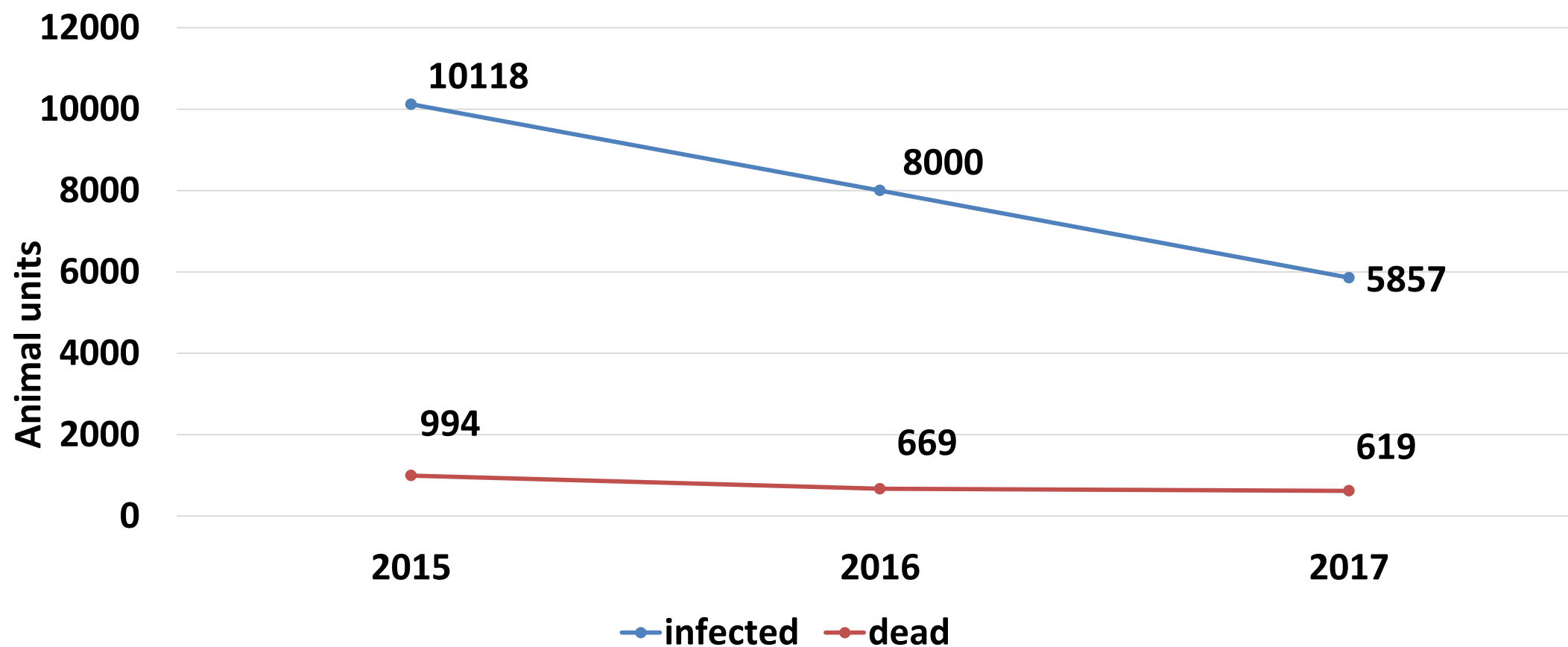
Tuberculin for mammals



Preventive measures and control

- appropriate feeding programme for reindeer
- TB test for new reindeer in the flock
- disinfection the facilities every month
- reducing
 - a) stress factors, b) vigorous physical activity c) amount of reindeer
- during the process of cutting antlers for drugs production
- reindeer isolation and slaughter infected animals

Necrobacteriosis



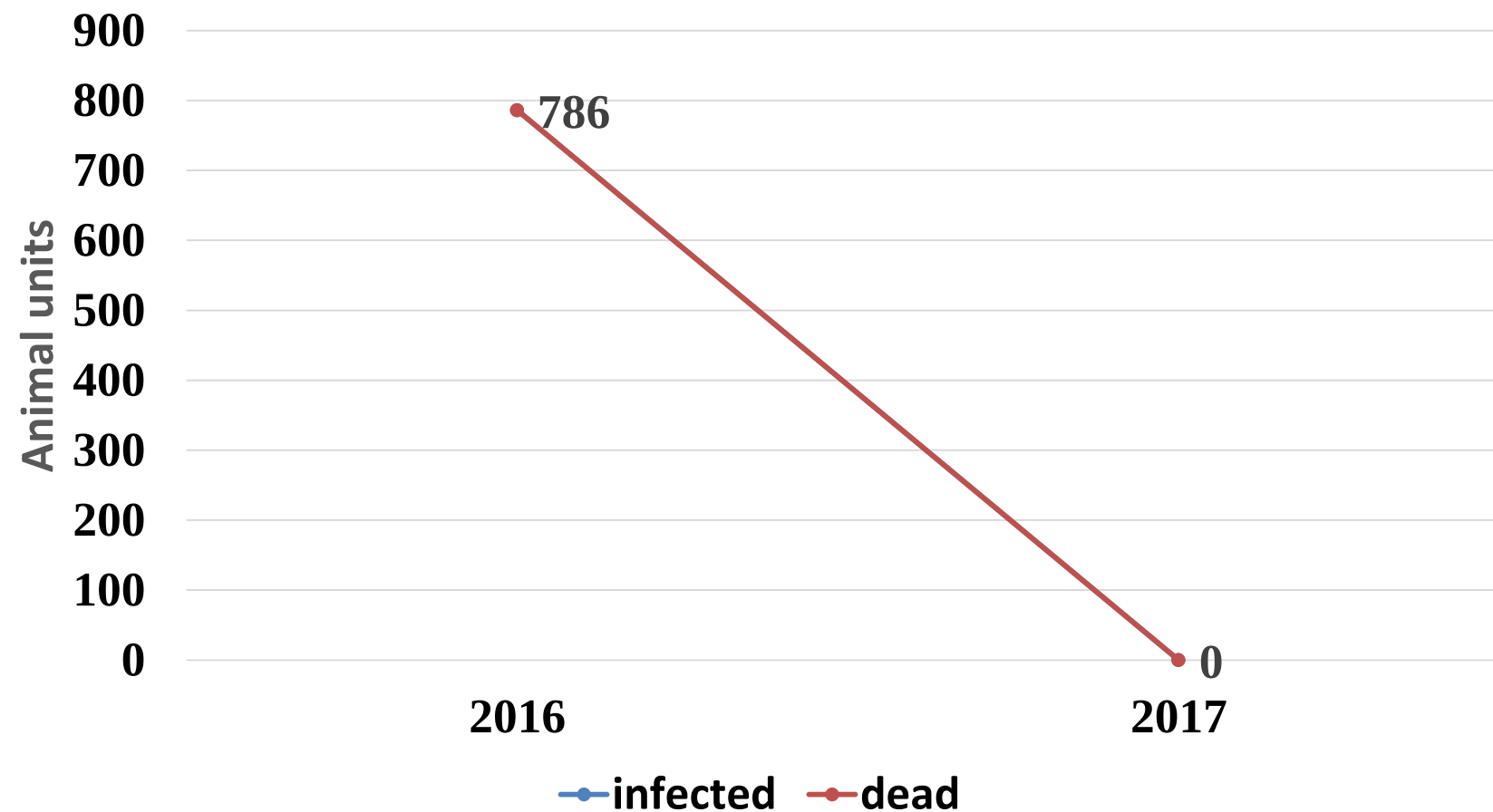
Sachabactisubtil drug, probiotic, Yakutskii Research Institute, oral



Preventive measures

- sanitary conditions at reindeer farms
- good conditions for keeping animals
- appropriate feeding programme for reindeer
- early disease detection
- reindeer isolation and immediate treatment

Pasteurellosis



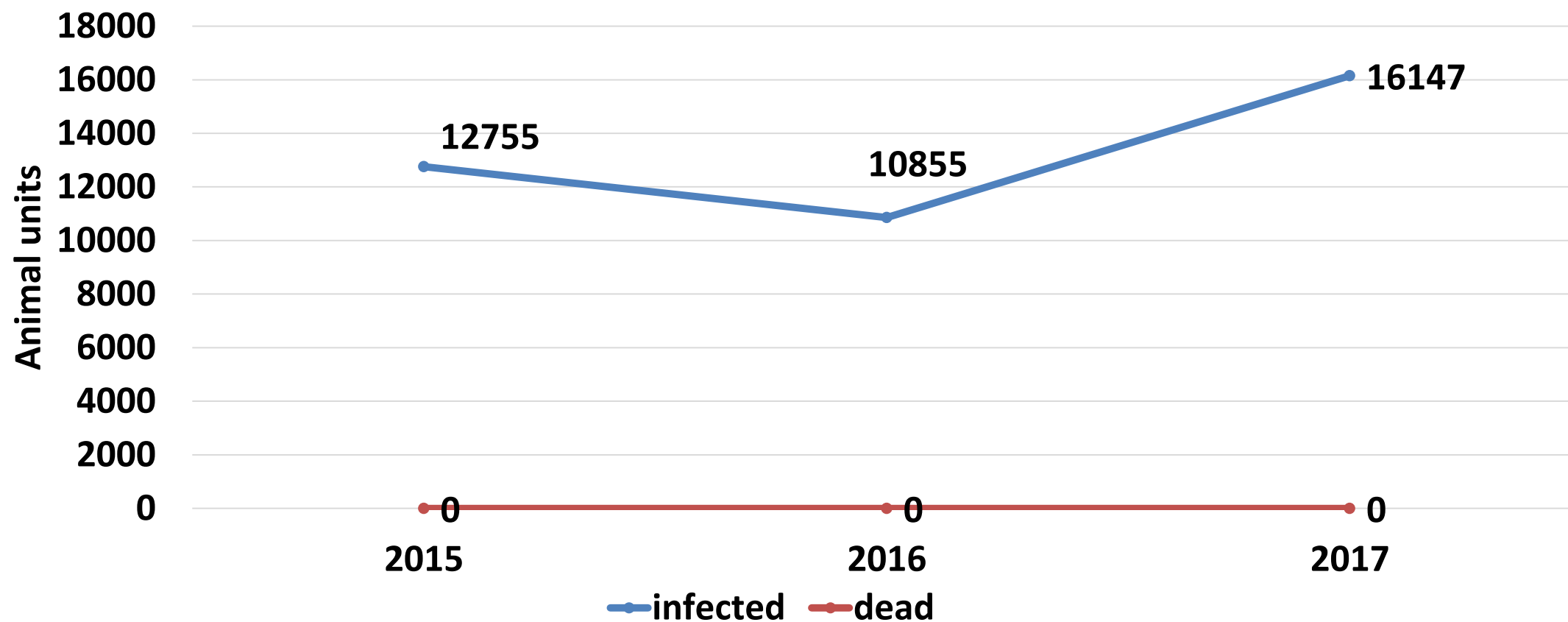
Pasteurellosis treatment with antibiotics



Preventive measures

- sanitary conditions at reindeer farms
- early disease detection
- during the Pasteurellosis cases the rest of the non-infected flock must be daily monitored and treated with anti-pasteurella serum in prophylactic doses of 30-40 ml subcutaneously

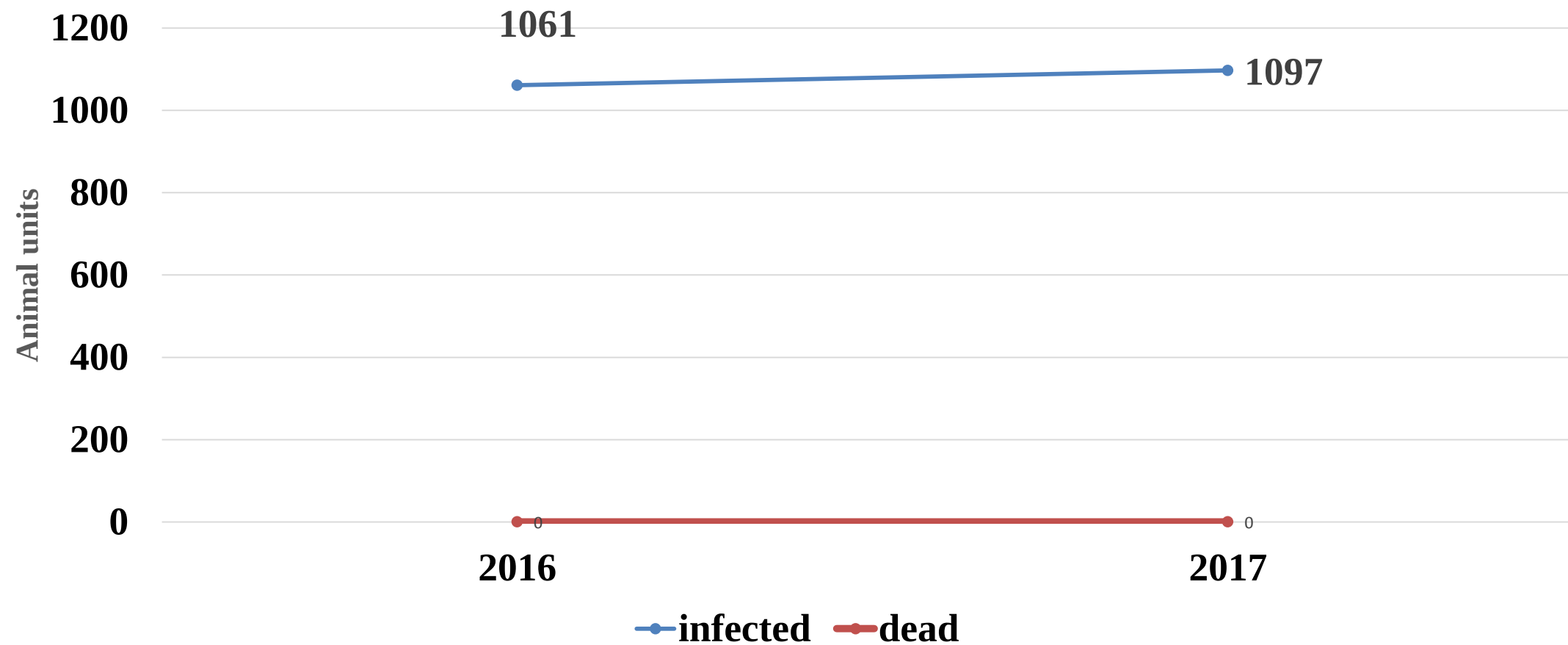
Oedemagenosis



Oedemagenosis treatment «Butox – 50»



Echinococcosis



Echinococcosis- no vaccines or drugs are available



Siberian wolf

- Population is about 55000 in Russia
- The damage to the Russian agriculture from wolves is
- 120 000 000 euro per year
- Wolf hunting is allowed in Russia



Poaching of reindeer in Siberia

- Antlers of young
Siberian stags are
used in medicine



Evenkiysky reindeer project

- 2014-2016
- 10 reindeer were fitted with GPS collars
- Valuable knowledge about reindeer migration and wintering



Natural recovery of reindeer population in Kolguev peninsula in Nenets Autonomous Region

- Reindeer transportation by helicopter
- 2015-2018
- Population increased for 4 times in 3 years
- 450-500 a.u. of reindeer is in 2018.



Thank you for your attention!

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