
# I.R.Iran

**Dr. Naser Rasouli Beirami**

*Head of animal diseases epidemiological studies department*

*Iran veterinary organization, IVO*



# Epidemiology?

Study of a disease in a population.



- Epidemiology:
- Descriptive Epidemiology
  - Which animal/animals got the disease, Who?
  - In where the animal/animals got the disease, Where?
  - When the animal/animals got disease, when?
- Analytical Epidemiology (Why /how they got the disease)
  - Observational
    - Cohort
    - Case – Control
    - Cross – sectional
  - Experimental, clinical trial, golden study



- About Epinet:
- We use it for descriptive epidemiology
  - We use it to know which animals got sick (how many animals got sick)
  - Where was the disease
  - When the disease occurred?
- And from these information you can calculate the incidence of the disease to evaluate the effectiveness or efficacy of controlling plans.



## گزارش مشاهده وقوع بيماري

شماره فرم: 3024
تاريخ فرم: 1389/12/14

مشخصات نمونه | علائم بيماري | بيماري هاي | مشاهدات كشتارگاهي | مشخصات واحد آلوده | مشخصات عمومي

تاريخ وقوع بيماري/ واكسيناسيون/ مراقبت: 1389/12/14

**مشخصات واحد دامي**

كد واحد دامي: 32080372
نام واحد دامي: وكيل كندي
نام انگليسي: vakil kandi
نوع واحد: village

**مشخصات بيماري**

نام بيماري: تب برفكي
كد بيماري: 010

**واكسيناسيون**

سابقه واكسيناسيون كل واحد: دارد / ندارد
تاريخ واكسيناسيون: 1389/11/15

**گزارش دهنده**

نام منبع اطلاعاتي: دولتي
كد منبع اطلاعاتي: 111



## گزارش مشاهده وقوع بيماري

شماره فرم: 3024

تاريخ فرم: 1389/12/14

مشخصات عمومی | مشخصات واحد آلوده | مشاهدات کشتارگاهی | بیماری های | علائم بیماری | مشخصات نمونه

### آمار دام هاي بيمار

نوع دام: گاو

حذف ردیف

| گروه سني | تعداد کل | تعداد مبتلا | تلف شده | معاینه/مراقبت/واکسینه | کشتار شده | معدوم شده |
|---|---|---|---|---|---|---|
| همه گروههاي سني | 325 | 16 | 3 | 37 | 0 | 0 |

### درصورتيکه دام بيمار اخيرا وارد شده باشد

منشا ورود دام:

تاريخ ورود دام: 13 / /



# FMD Hotspots



# Epinet data in Exel file

| Province | Farsi_desc | Eng_desc | Code | Type | Nourth | East | Elev | Cattle_popul | Sheep_popul | Horse_popul |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | مجتمع دامداري حاجي آباد | mojtame damdari haji abad | 14190060 | animal complex | 28.349628 | 54.480234 | 1032.6 | 10 | 1500 | 0 |
| 26 | مجتمع دام شهر | damshahr | 26030105 | animal complex | 34.72512 | 50.71426 | 965.3 | 19000 | 50000 | 0 |
| 14 | سيد فرامرز كشاورز | Keshavarz Seyyed Faramarz | 14070762 | animal complex | 29.66975 | 52.8979 | 1607.2 | beef farm | 70 | 0 |
| 14 | همام الدين | Homameddin | 14180137 | animal complex | 29.869241 | 53.342148 | 1619.9 | 28 | 1950 | 0 |
| 14 | علي حاجيوندي | Hajivandi Ali | 14071085 | animal complex | 29.482667 | 52.639633 | 1479.2 | 24 | 250 | 0 |
| 14 | ابراهيم كاظمي | Kazemi Ebrahim | 14070781 | animal complex | 29.826519 | 52.795637 | 1604 | 0 | 300 | 0 |
| 14 | شركت بناب | Sherkat bonab | 14180029 | animal complex | 29.942631 | 53.266485 | 1724.3 | 12 | 400 | 0 |
| 14 | استهبان | estahban | 14020052 | animal complex | 29.133087 | 54.017042 | 1680.1 | 0 | 0 | 0 |
| 14 | يان عادل زاده رضوي | sahraeian adelzadeh razavizadegan | 14040122 | animal complex | 28.497151 | 53.518664 | 1074.1 | 85 | 0 | 0 |
| 14 | پير مرادي | pirmoradi | 14030089 | animal complex | 30.797524 | 52.529881 | 2347.6 | 0 | 920 | 0 |
| 36 | كمربندي برازجان | kamarbandi borazjan | 36030031 | beef and sheep farm | 29.26119 | 51.17848 | 37.8 | 300 | 1700 | 0 |
| 36 | سيد عباس موسوي | seyed akbar mousavi | 36070064 | beef and sheep farm | 29.56309 | 50.65886 | 34.4 | 30 | 40 | 0 |
| 36 | گرمسيري | garmsiri | 36030082 | beef and sheep farm | 29.32315 | 51.24716 | 119.2 | 100 | 60 | 0 |
| 36 | قاسم ابزار | ghasem abzar | 36030003 | beef and sheep farm | 29.23535 | 51.25183 | 121.3 | 25 | 200 | 0 |
| 35 | اسماعيل برچلوئي | Ismail Borchalooi | 35020264 | beef and sheep farm | 34.54781 | 48.99458 | 1677 | 8 | 140 | 0 |
| 16 | منصورعزيزآبادي | mansour azizabadi | 16160100 | beef and sheep farm | 28.940534 | 58.823435 | 670.88 | 30 | 150 | 0 |
| 26 | عباس زند و شركاء | abbaszand shoraka | 26040058 | beef and sheep farm | 34.418815 | 50.63678 | 1267.13 | 100 | 800 | 0 |
| 26 | مهدي آباد حومه | mehdiabad homeh | 26030128 | beef and sheep farm | 34.676878 | 50.844584 | 879 | 1500 | 3000 | 0 |
| 26 | كيلومتر 25 جاده كاشان | kilometre 25 jadeh kashan | 26030165 | beef and sheep farm | 34.485833 | 51.060453 | 928 | 100 | 400 | 0 |
| 26 | محمد عبدي | mohammad e abdi | 26010005 | beef and sheep farm | 34.77014 | 50.4806 | 1039.4 | 130 | city | 0 |
| 26 | عباسعلي حسن زاده | abasali hassanzadeh | 26030166 | beef and sheep farm | 34.487328 | 51.046908 | 936 | 350 | 600 | 0 |
| 26 | كيلومتر 20 شاه پسندي | kilometre 20 shahpasand | 26030164 | beef and sheep farm | 34.49306 | 51.039933 | 936 | 20 | 3000 | 0 |
| 26 | عين الله زند وكيل | einallah zandvakil | 26030188 | beef and sheep farm | 34.844136 | 50.768859 | 901 | 60 | 1200 | 0 |

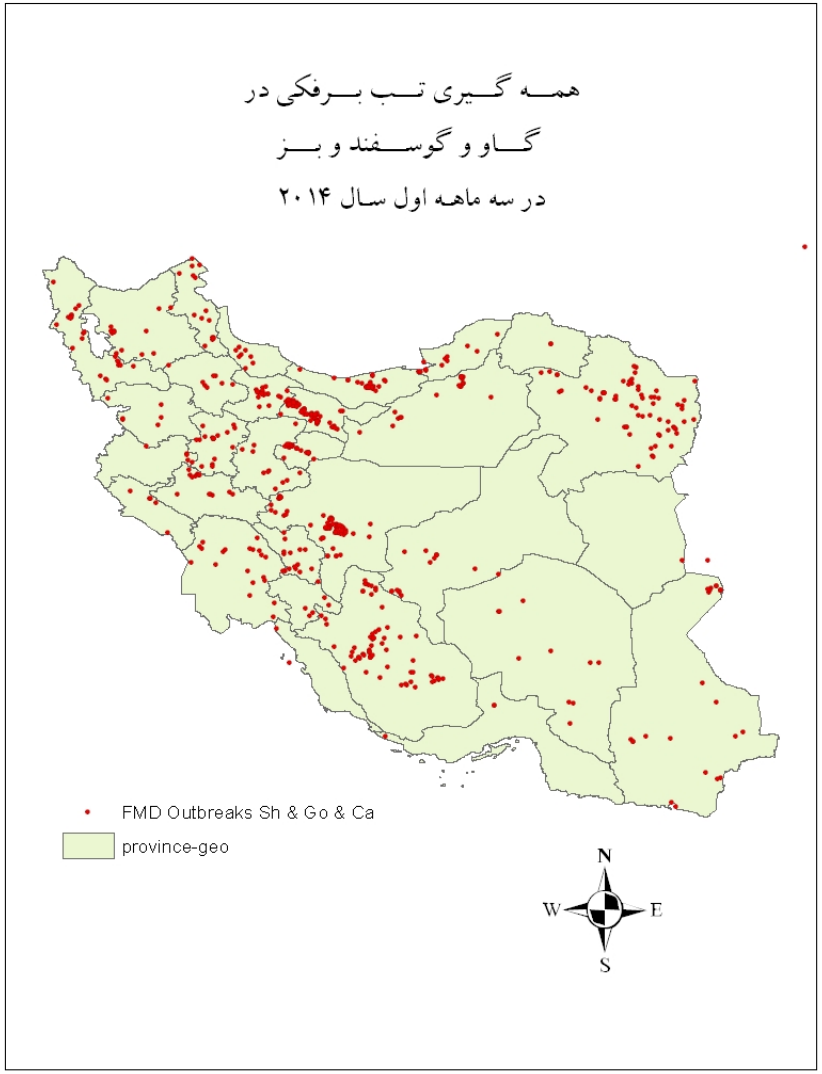


| Year | Cattle | Sheep & Goat | Total |
|---|---|---|---|
| 2007 -2008 (1386) | 591 | 423 | 1014 |
| 2008 - 2009 (1387) | 517 | 147 | 664 |
| 2009 - 2010 (1388) | 1811 | 883 | 2694 |
| 2010 - 2011 (1389) | 2723 | 2679 | 5402 |
| 2011 - 2012 (1390) | 1306 | 336 | 1642 |
| 2012 | 985 | 313 | 1298 |
| 2013 | 814 | 335 | 1149 |
| First 3 months of 2014 | 508 | 159 | 667 |

# No. Outbreaks in recent years

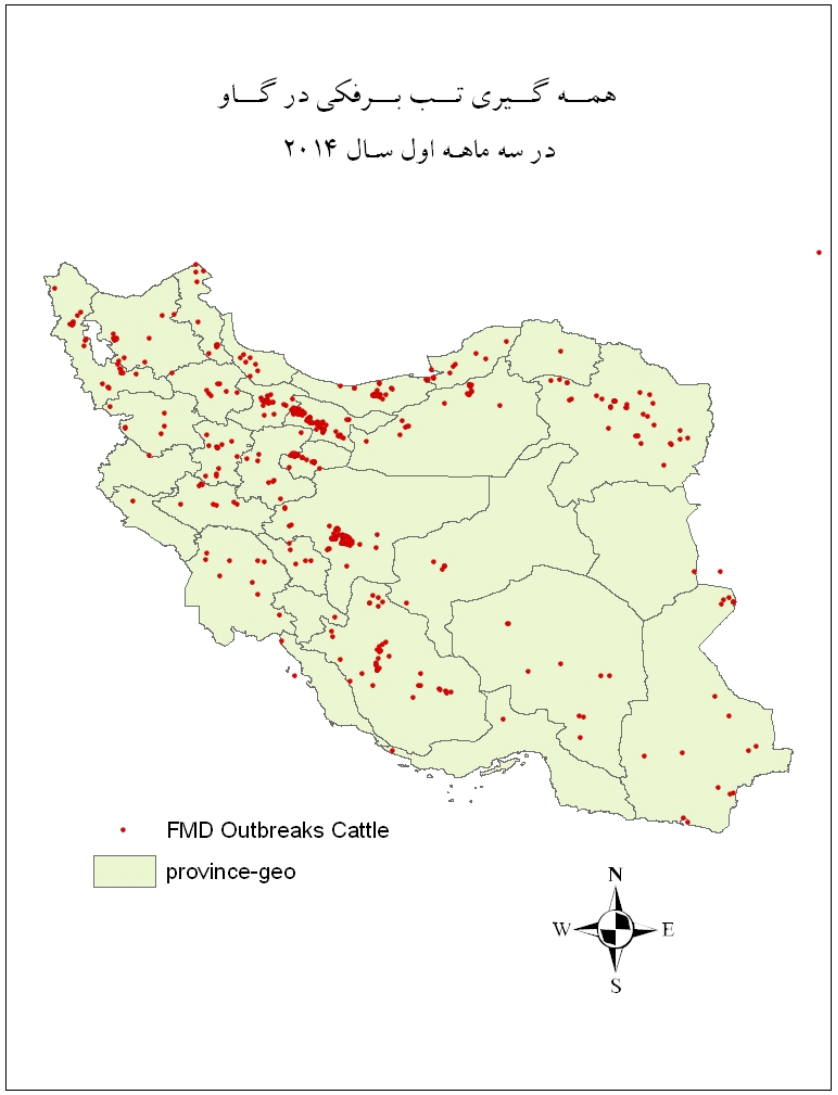


# Cattle, Sheep & Goat FMD outbreaks in Jan. – Mar. 2014 667 Reports in 639 epidemiological units



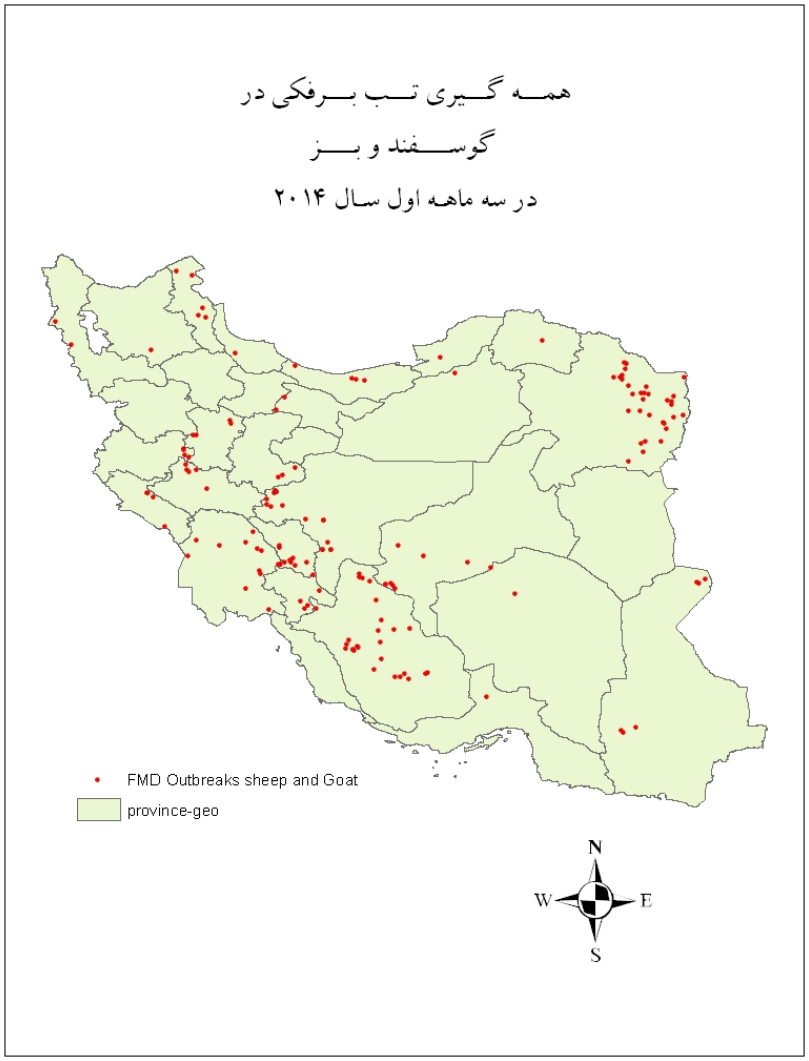


# Cattle FMD outbreaks in Jan. – Mar. 2014 508 Reports in 487 epidemiological units



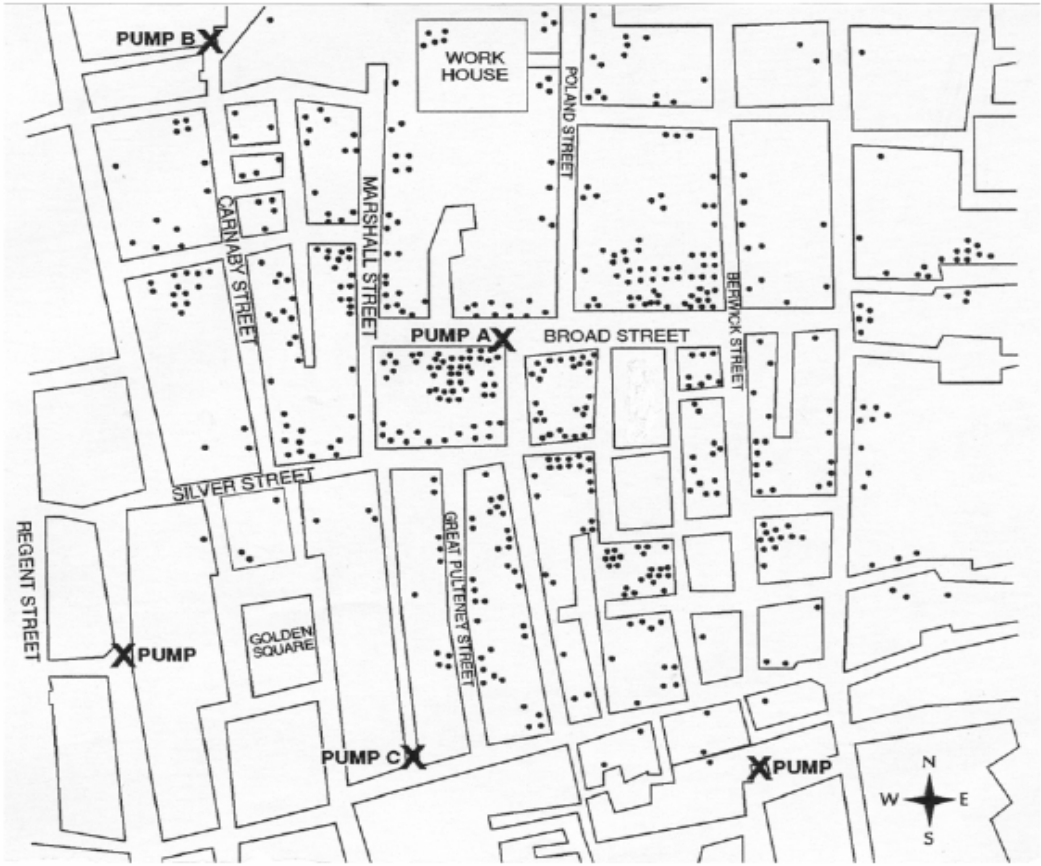


# Sheep and Goat FMD outbreaks in Jan. – Mar. 2014
# 159 Reports in 154 epidemiological units





# Spot map of deaths from cholera in Golden Square area, London, 1854




| | | |
|---|---|---|
| initiative Title : | The strategic control of FMD disease ( project operational ) based on risk factors | Goal : To improve livestock production and productivity |
| Project title : | The strategic control of FMD disease based on risk factors | Strategic Objective : To reduce impact of clinical FMD disease |
| to achieve the strategic objective we dertermine 10 intermediate objectives ( as subprojects ) on the base of risk factors of FMD and measures are implemented per subproject | | |
| 1- to reduce risk of FMD virus transmission caused by animal transportation and animal trading | 5- to reduce risk of FMD transmission from high-risk areas and immadiate action against outbreaks | 9- To establish sustained private-public partnerships (between IVO and private stakeholders of the following sectors ....), through which the RBSP on FMD control is effectively supported and implemented |
| 2- to improve the immunity against FMD and biosecurity of calves destined for fattening, at place of origin as well as destination | 6- to reduce impact of clinical FMD in commercial dairy sector | 10- to sustain risk-based control of FMD through advocacy with government and international agencies |
| 3- to reduce risk of incursion of new strains and serotypes through importation of livestock | 7- improvement of FMD vaccine which complies with quality standards and strengthening of IVO FMD laboratory diagnosis network | |
| 4- to reduce the risk of transmission of FMD virus by 'veterinary' professionals (vaccinators, inseminators, practitioners, outbreak investigators and jehad-e-agriculture representatives) through application of sufficient and effective biosecurity measuers | 8- To establish an accurate and effective system of monitoring and evaluation of the FMD control strategy | |




Russia
Ukrainia
Kazakhstan
Uzbekistan
Kyrgyz Republic
Azerbaijan
Turkmenistan
Turkey
Tajikistan
China
Iran
Afghanistan
Disputed teritory of Kashmir
Pakistan
Egypt
Saudi Arabia
India



# Summary

- As mentioned in the PCP-FMD epidemiological studies must be the basis of all the measures for controlling the disease and preparing RBSP.
- Epi net is necessary for defining risks
- Epi net is necessary for evaluation of plans.
- Participants are wellcomed visiting Iran epi net and using the experiences



# Acknowledgments


- Keith Sumption, Melissa Maclaw and Chris Bartles for arranging some epidemiological training courses.
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- Thank you for your attention