

# „Praktické informace“ o infekčních nemocech

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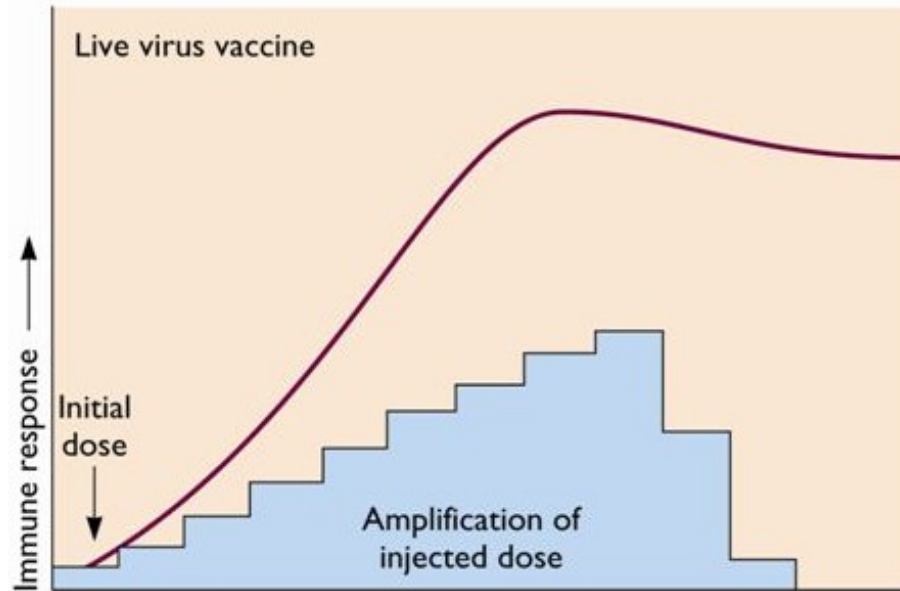
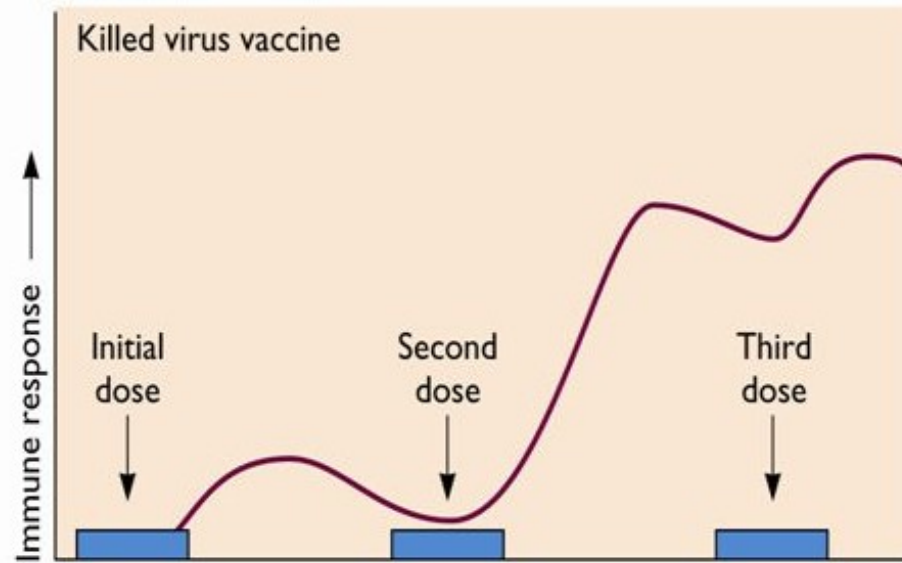
1. očkování

2. antibiotická rezistence

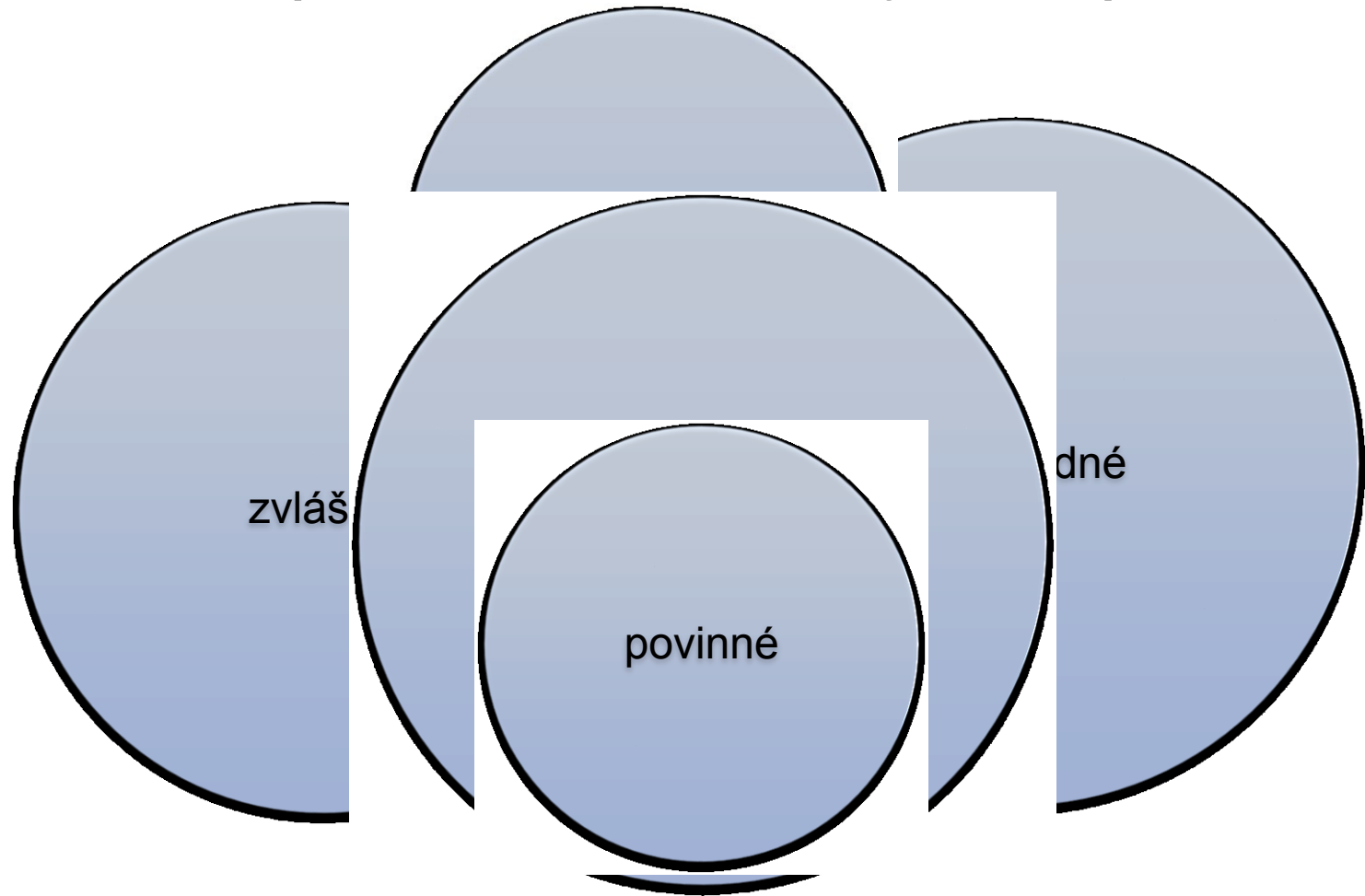
3. cestování a infekce

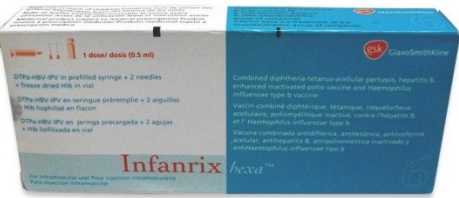
# Očkování





# Typy očkování v ČR (podle úhrady ZP)





# Očkování v ČR

platné od 1.1.2018



- Od dovršeného 2. měsíce věku:  
„hexavakcína“ (1. rok 3 dávky)  
= záškrť, tetanus, černý kašel, dětská obrna, hepatitida B,  
onemocnění vyvolaná Haemophilus influenzae typu b -  
+ pneumokoky (13 sérotypů)
- 13.–18. měsíc věku: „MMR vakcína“  
= spalničky, zarděnky, příušnice  
(2. dávka v 5.-6. roce)
- Individuálně: rotaviry, neštovice,  
papilomaviry, TBC, HAV, chřipka, ...





# Rizika očkování a kontroverze



Edvard Munch, Výkřik

Viz. prezentace očkování a COVID-19

# www.rosalio.cz

- „Již z pouhého pohledu na jednoduchou statistiku je však jasné, že situace je vážnější, než tvrdí. Ze stránek Státního ústavu pro kontrolu léčiv zjistíme, že [za rok 2016 bylo vyhodnoceno jako závažné reakce na očkování MMR vakcínou celkem 127 případů.](#)“
- 

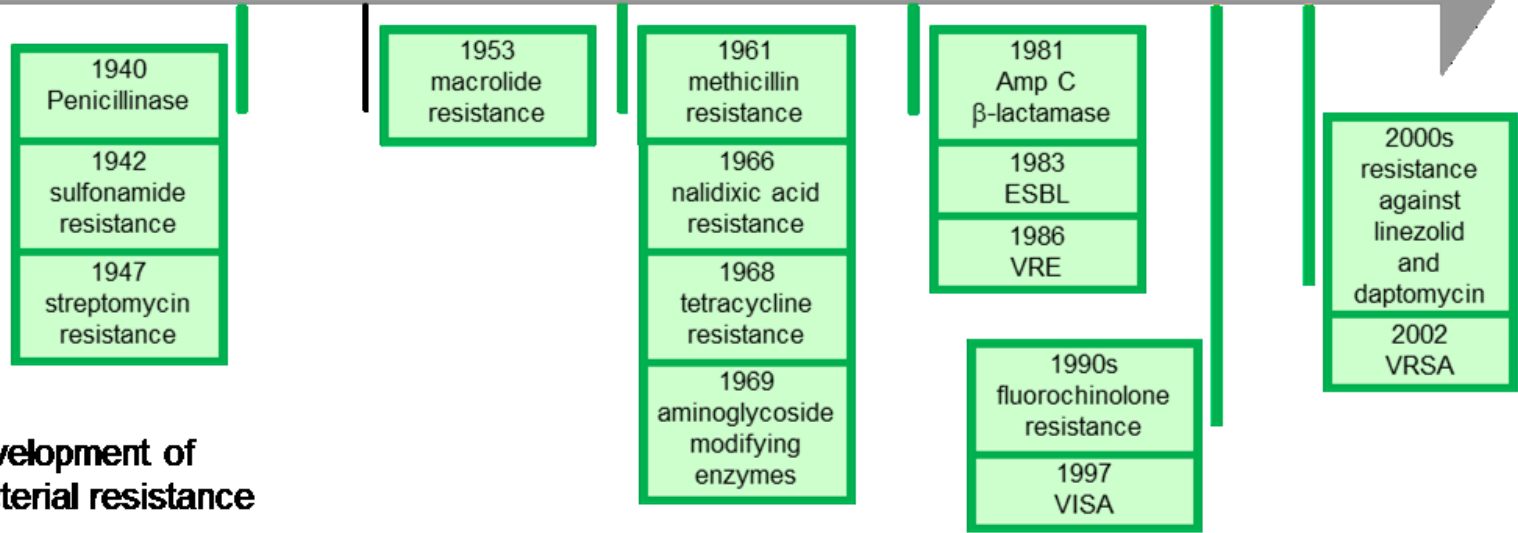
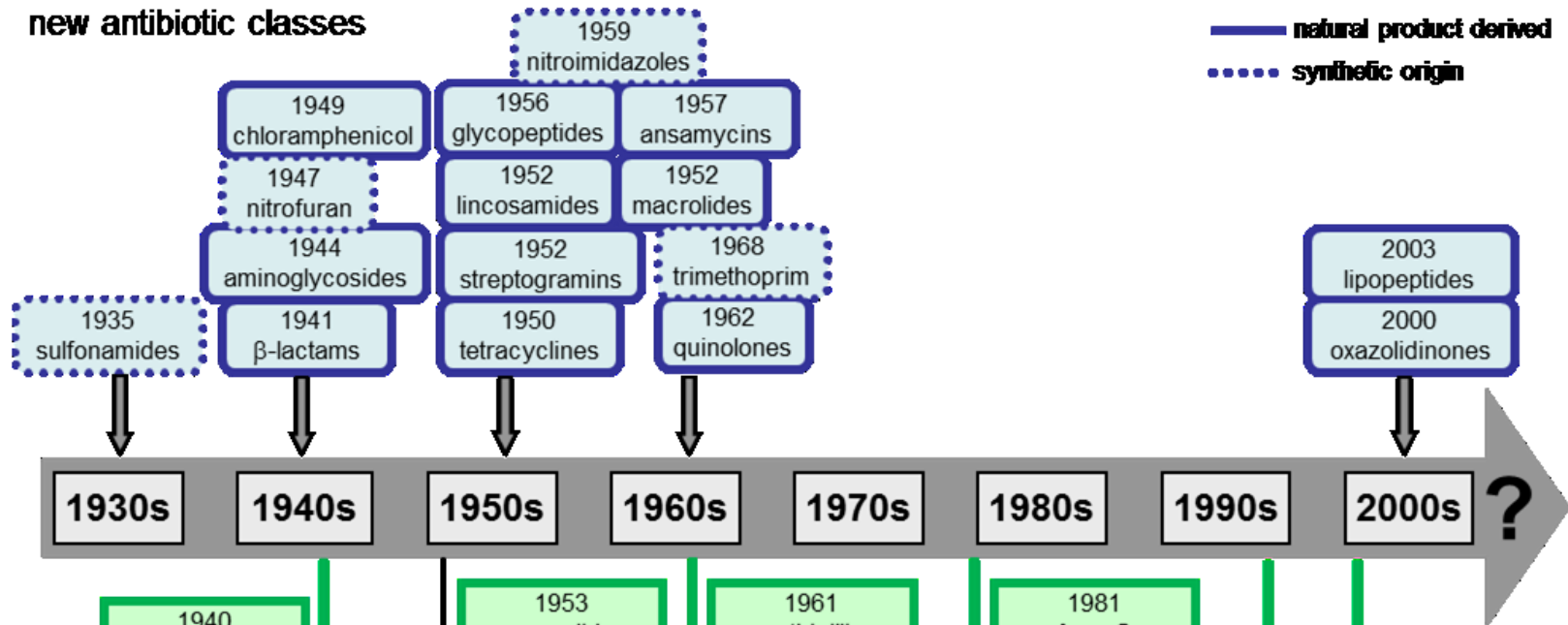
- Ročně je v ČR podáno přibližně 200 000 dávek vakcíny Priorix
- Roční statistika NÚ vypovídá pouze o tom, jaké NÚ byly daný rok SÚKL nahlášený, jednotlivá hlášení obsahují pouze podezření na NÚ, nikoliv prokázanou kauzální souvislost.
- Nejčastěji hlášenou reakcí byla zvýšená teplota a horečka, která byla nahlášena v počtu 87 reakcí.
- Druhou nejčastěji hlášenou reakcí byla vyrážka nahlášená v počtu 48 reakcí.
- Infekce dýchacích cest a plic byly nahlášený v počtu 29 případů.
- Reakce jako neklid, podrážděnost, mrzutost, abnormální či sebepoškozující chování byly nahlášený v počtu 23 reakcí.
- Pláč a plačtivost byly nahlášený v počtu 22 reakcí.



**ATB rezistence**

# ATB rezistence

## Introduction of new antibiotic classes



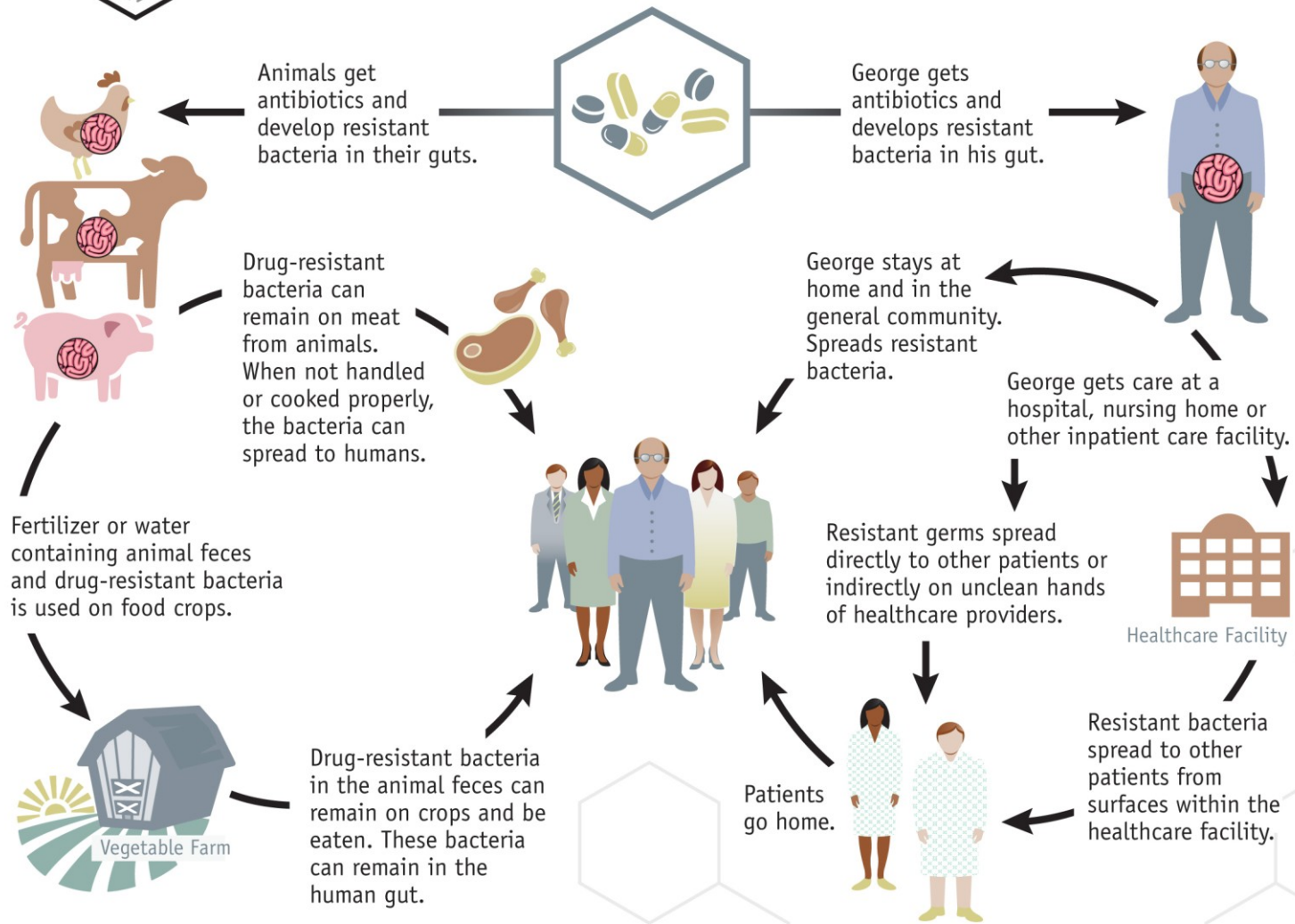
## Development of bacterial resistance

# ATB rezistence

<del>Peniciliny</del>	(různé, ale hlavně MRSA)
<del>Cefalosporiny !!</del>	(ESBL enterobaktérie)
<del>Karbapenemy !!!!!</del>	(MBL a KPC enterobaktérií)
<del>Flourochinolony</del>	(Pseudomonas aeruginosa)
<del>Aminoglykosidy</del>	(Pseudomonas aeruginosa)
<del>Glykopeptidy</del>	(VRE, VRSA)



# Examples of How Antibiotic Resistance Spreads



**Simply using antibiotics creates resistance. These drugs should only be used to treat infections.**

# A GROWING CRISIS WORLDWIDE

In the **EUROPEAN UNION**,  
antibiotic resistance  
causes 25,000 deaths per year  
and 2.5m extra hospital days<sup>1</sup>



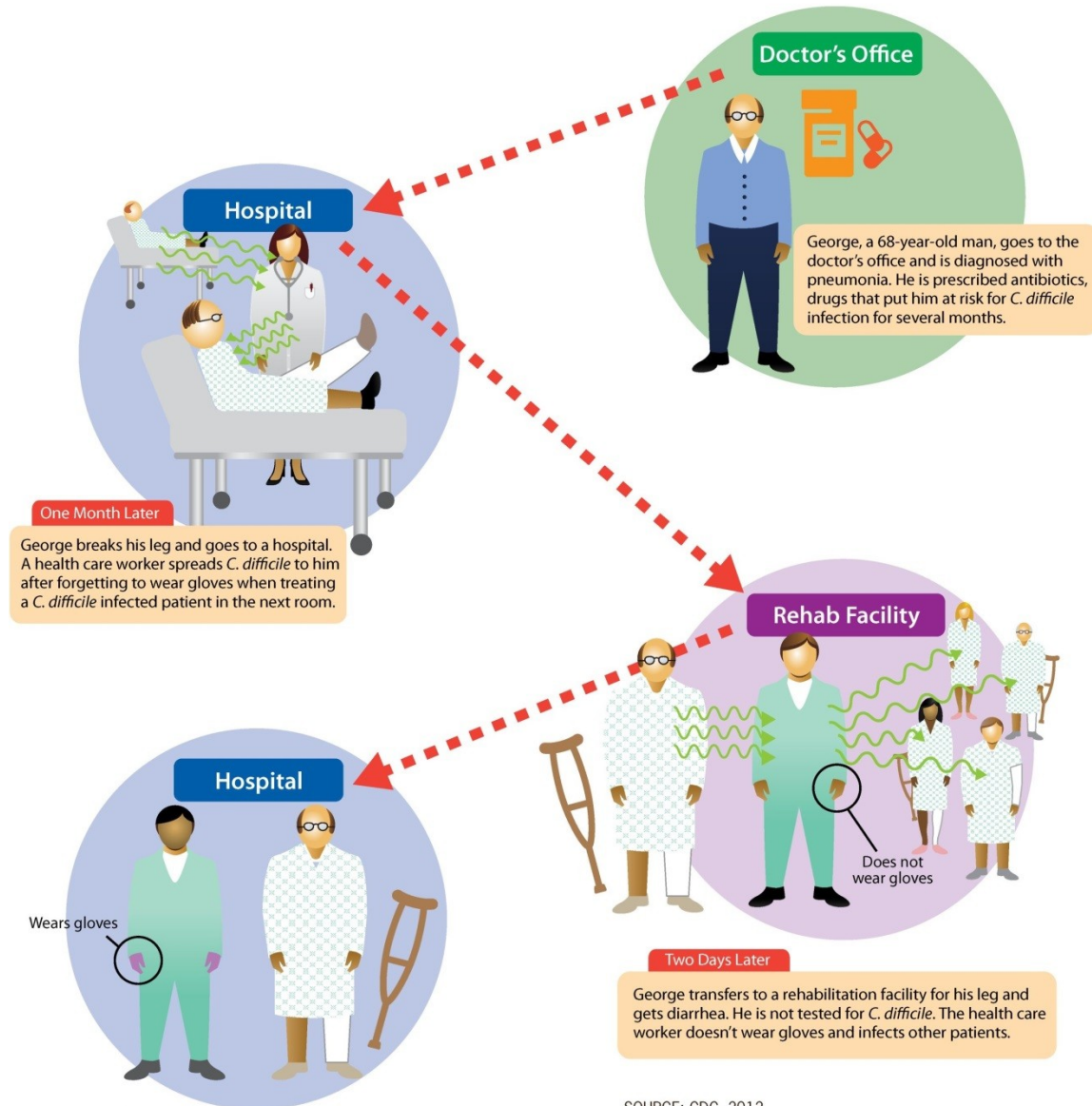
In **INDIA**, over 58,000 babies died  
in one year as a result of infection  
with resistant bacteria usually  
passed on from their mothers<sup>2</sup>

In **THAILAND**,  
antibiotic resistance  
causes 38,000+ deaths  
per year and 3.2m hospital days<sup>3</sup>



In the **UNITED STATES**,  
antibiotic resistance  
causes 23,000+ deaths  
per year and >2.0m illnesses<sup>4</sup>

# Klostridiová kolitida






**Kdy nasadit antibiotika?**




# **Cestování a infekce**

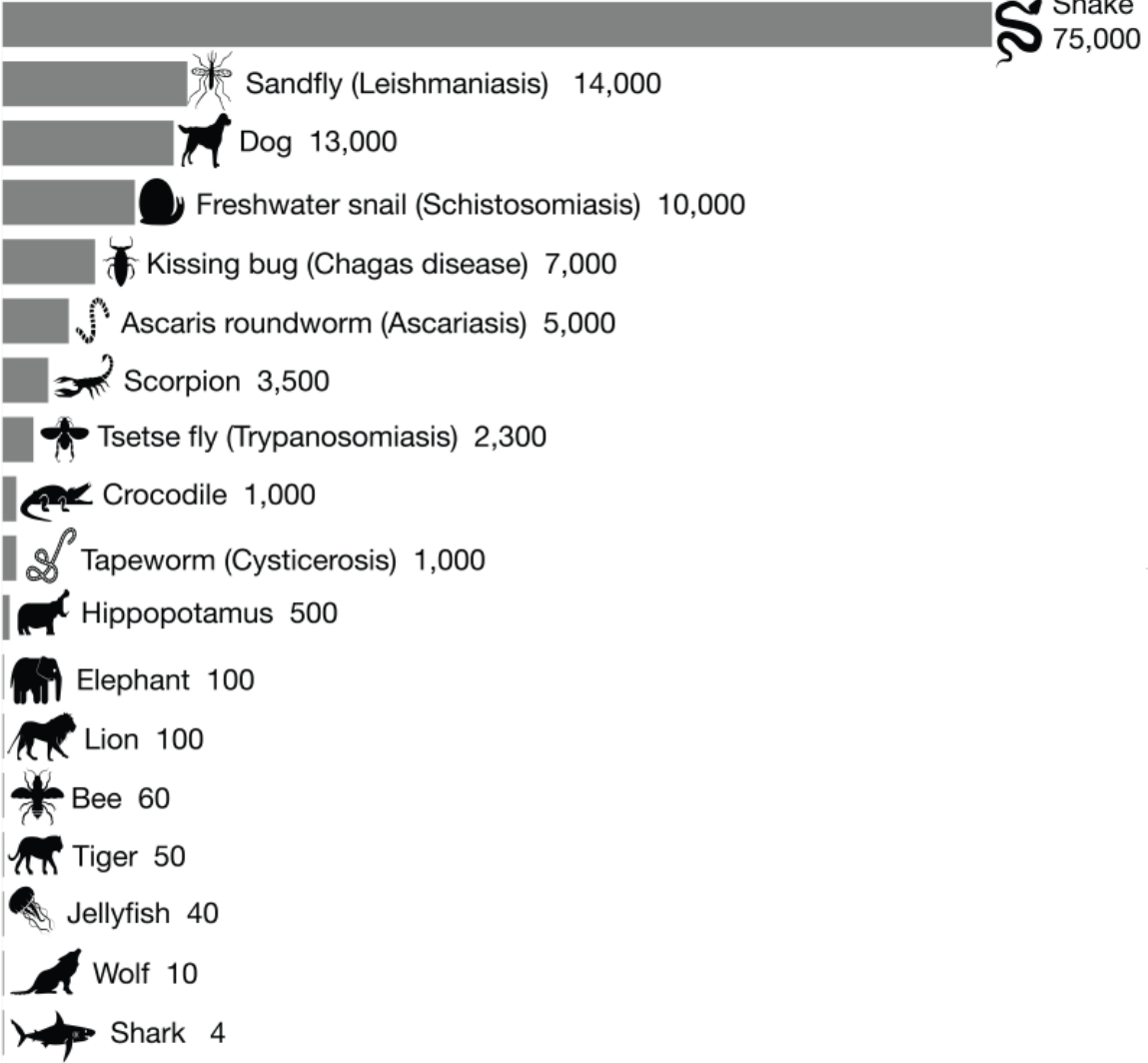
# Deadliest animals: global deaths by animal, 2016



**Mosquito**  
780,000



**Human**  
546,000

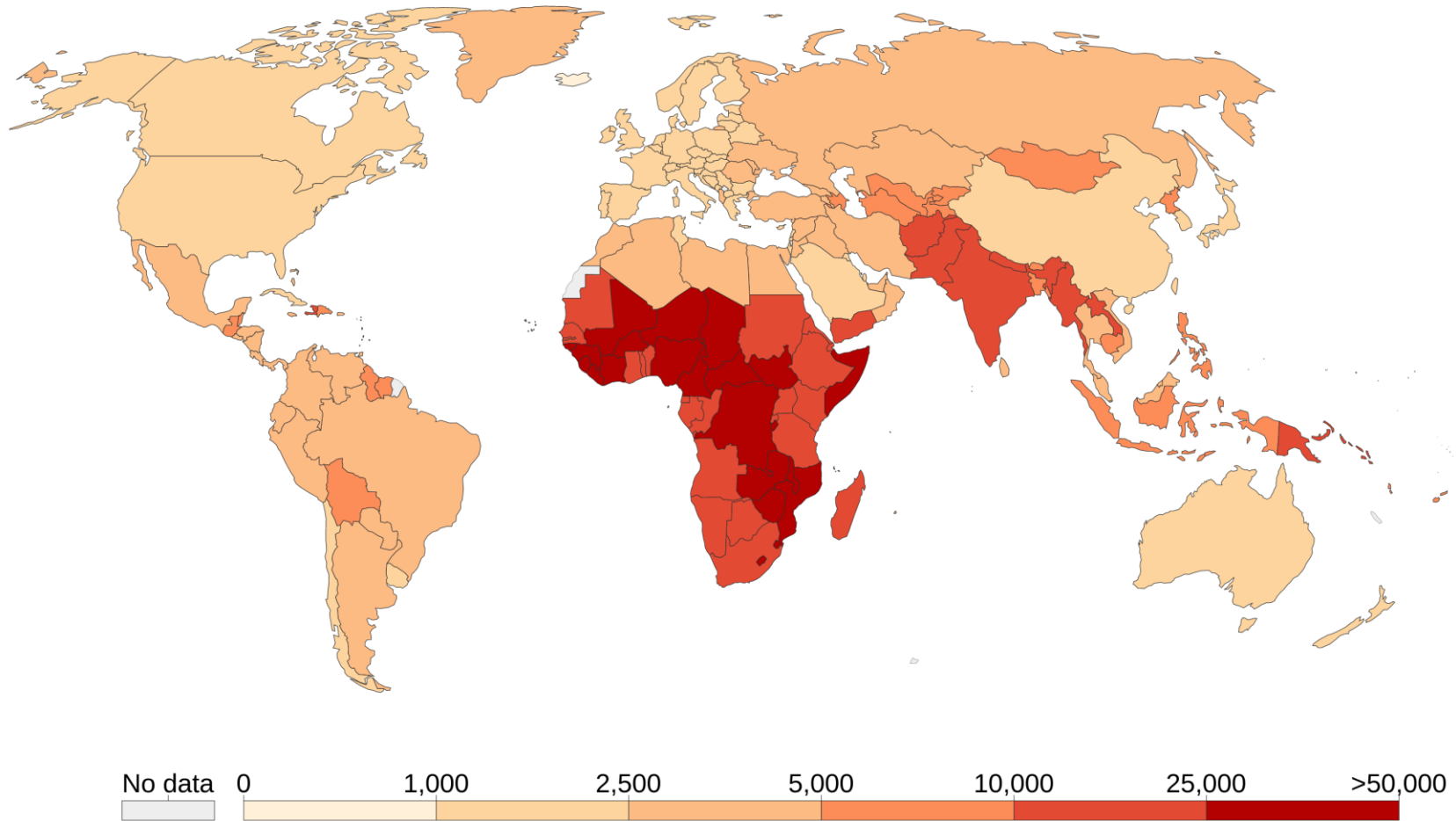


Based on data by IHME, WHO, Shark Attack File, CrocBITE, GatesNotes, National Geographic, UN FAO, WWF. Logo source: Noun Project. Global estimates for some animals have a significant error margin, but expected to be representative of relative magnitude. The data visualization is available at [OurWorldinData.org](http://OurWorldinData.org). There you find research and more visualizations on this topic.

# Infekce importované do ČR

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
VIR.HEPATITIS A	1648	1104	862	264	284	348	673	724	930	772
VIR.HEPATITIS E	65	99	72	163	258	218	299	412	339	344
SHIGELOZA	229	178	450	164	266	257	92	88	70	168
DENGUE	11	15	17	13	29	81	35	40	123	57
GIARDIASIS	79	47	51	45	49	46	42	33	45	28
MALARIE	22	11	13	28	27	27	31	29	38	27
ASCARIASIS	48	43	27	36	33	20	28	16	15	21
HH S RENALNIM SYNDROMEM	2	6	8	9	8	12	3	7	10	17
TAENIASIS	7	3	4	9	6	30	18	6	5	6
CRYPTOSPORIDIOSIS	0	0	1	0	4	2	1	2	2	5
TYPHUS ABDOMINALIS	4	3	4	3	2	0	3	1	0	4
AMOEBIASIS NS	11	5	18	6	17	11	16	9	21	4
JINE RICKETTSIOZY (mimo ehrlichiozu)	0	1	0	0	0	0	0	3	3	3
ENCEPHAL.VIR. KOMARI	1	0	1	0	1	0	0	1	0	2
LEISHMANIOZA	2	1	2	1	4	2	0	1	3	2
PARATYFUS A	1	1	1	2	4	2	2	1	2	1
PARATYFUS B	1	0	0	2	0	1	1	1	0	1
BRUCELOZA	1	0	1	0	0	0	0	0	1	1
ECHINOKOKOSIS	2	1	5	0	0	2	6	3	4	1
Q HORECKA	0	0	0	1	1	0	0	1	2	0
AKANTAMEBOZA	0	0	0	0	1	0	0	1	0	0
SCHISTOSOMOZA	2	1	4	0	7	0	1	10	1	0

# DALY rates from communicable, neonatal, maternal & nutritional diseases, 2017



# Latest Disease Outbreak News

22 February 2020

**Dengue fever – Chile**

21 February 2020

**Yellow fever – Uganda**

20 February 2020

**Ebola virus disease – Democratic Republic of the Congo**

20 February 2020

**Lassa Fever – Nigeria**

12 January 2020

**Novel Coronavirus – China**

10 January 2020

**Measles – occupied Palestinian territory**

8 January 2020

**Middle East respiratory syndrome coronavirus (MERS-CoV) – The United Arab Emirates**

5 January 2020

**Pneumonia of unknown cause – China**

2 January 2020

**Ebola virus disease – Democratic Republic of the Congo**

# Cesta přenosu

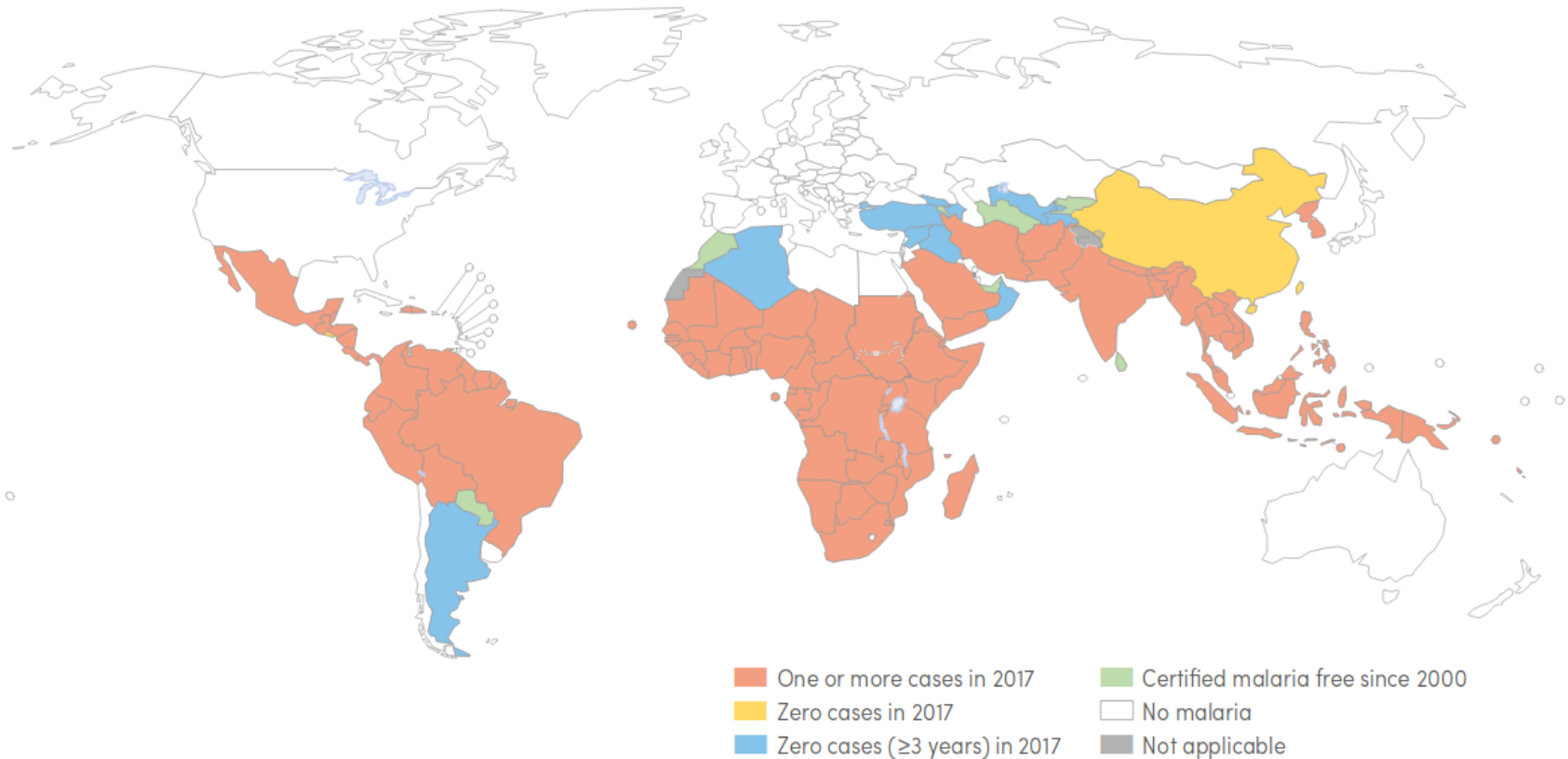
- zvířetem (vč. hmyzu)
- jídlem / vodou (GEA, HAV, cholera, tyfus, ...)
- vzduchem
- přímým kontaktem (vč. NKN)
- krví a pohlavním stykem (HBV, syfilis, HIV, ...)

# **Infekce přenášené zvířetem**

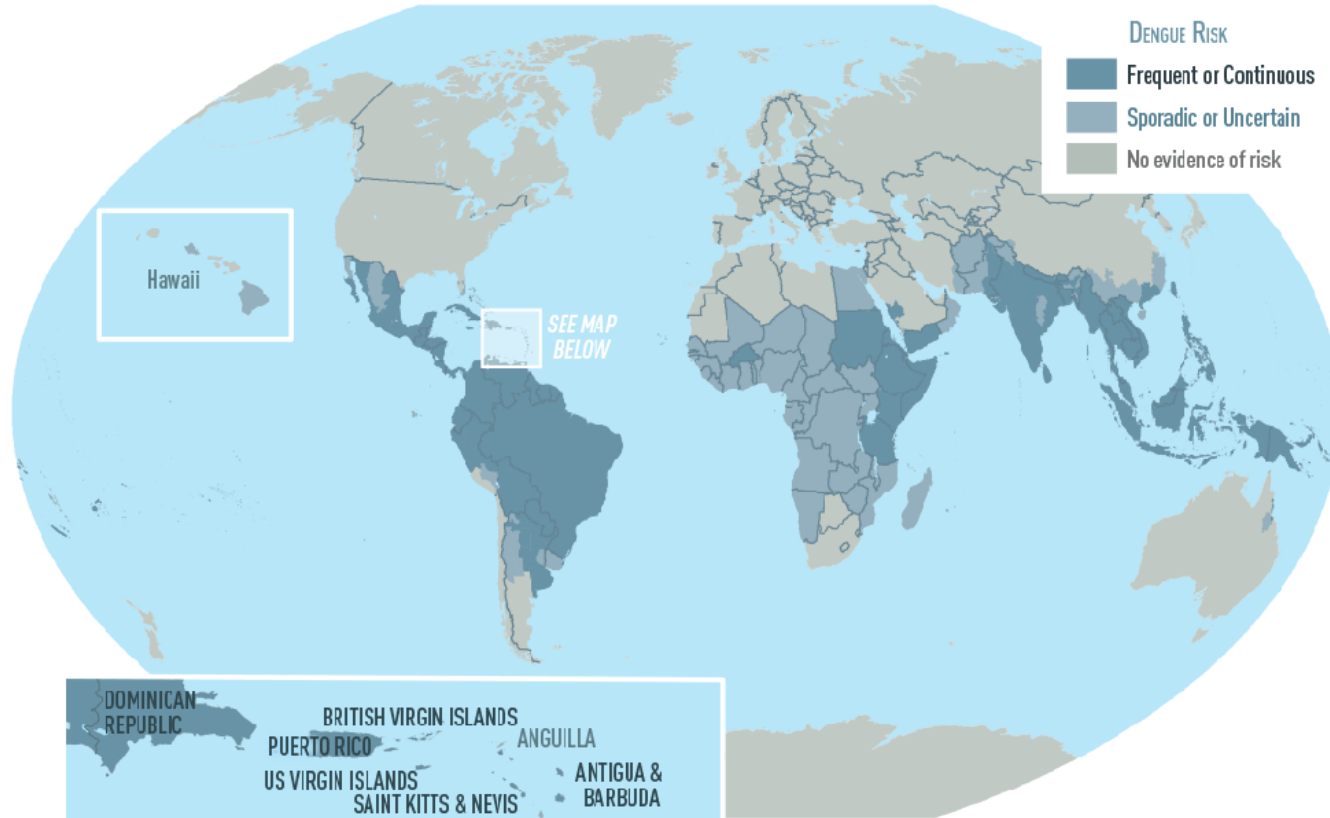


# Malária

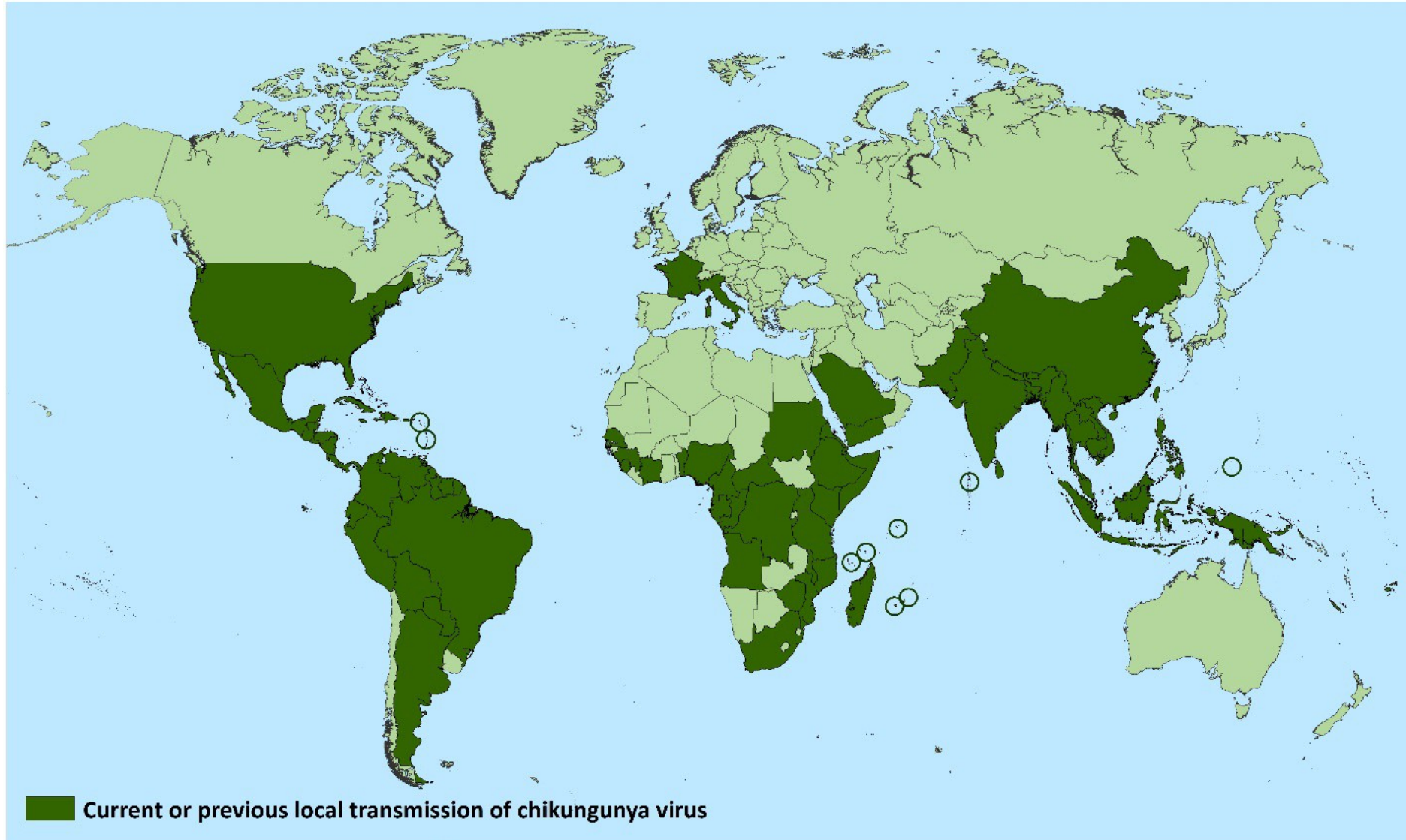
**Countries with indigenous cases in 2000 and their status by 2017** Countries with zero indigenous cases over at least the past 3 consecutive years are considered to be malaria free. All countries in the WHO European Region reported zero indigenous cases in 2016 and again in 2017. In 2017, both China and El Salvador reported zero indigenous cases. *Source: WHO database.*



# Dengue

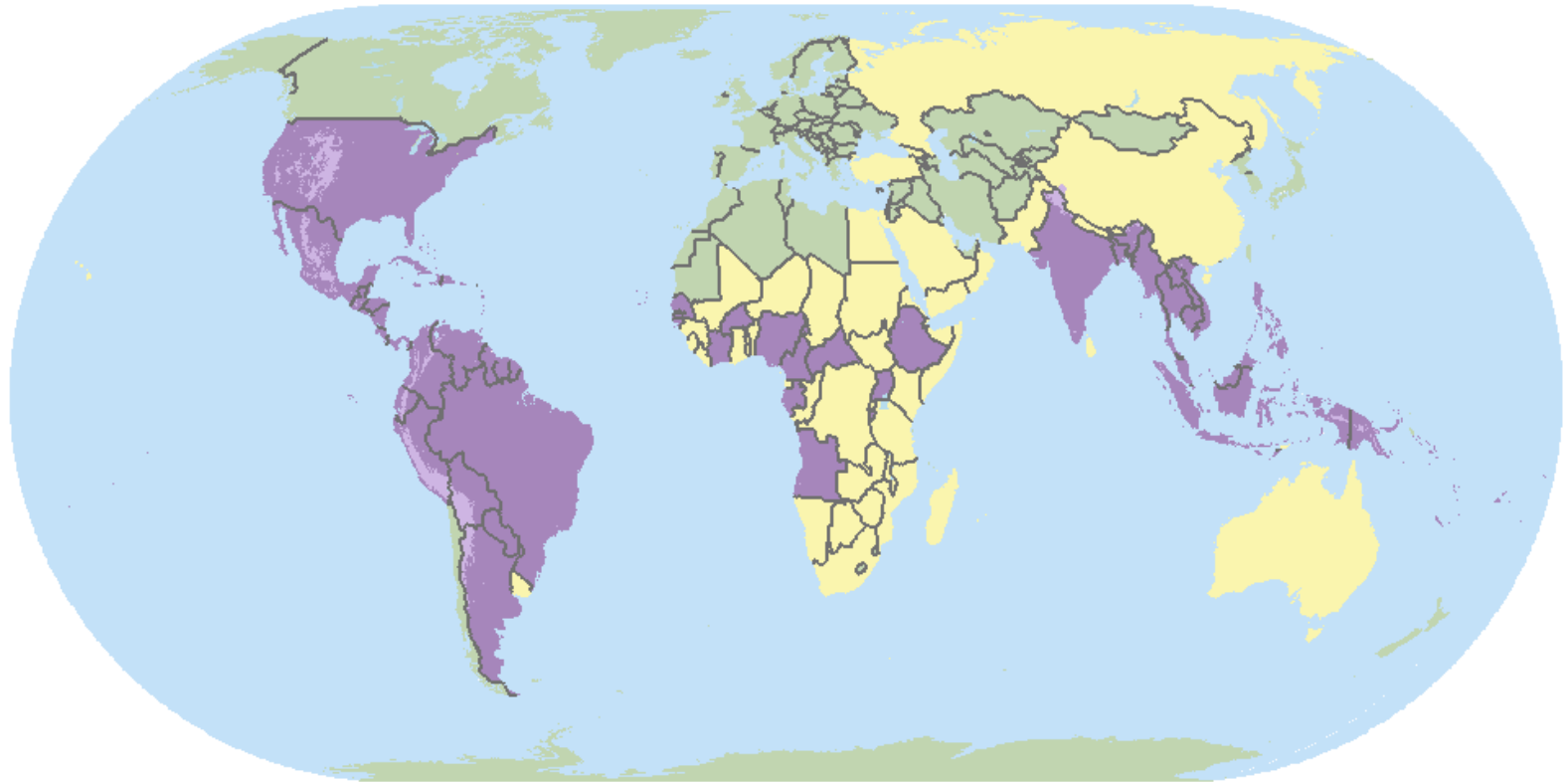


# Chikungunya








# Zika

World Map of Areas with Risk of Zika



## Map Legend

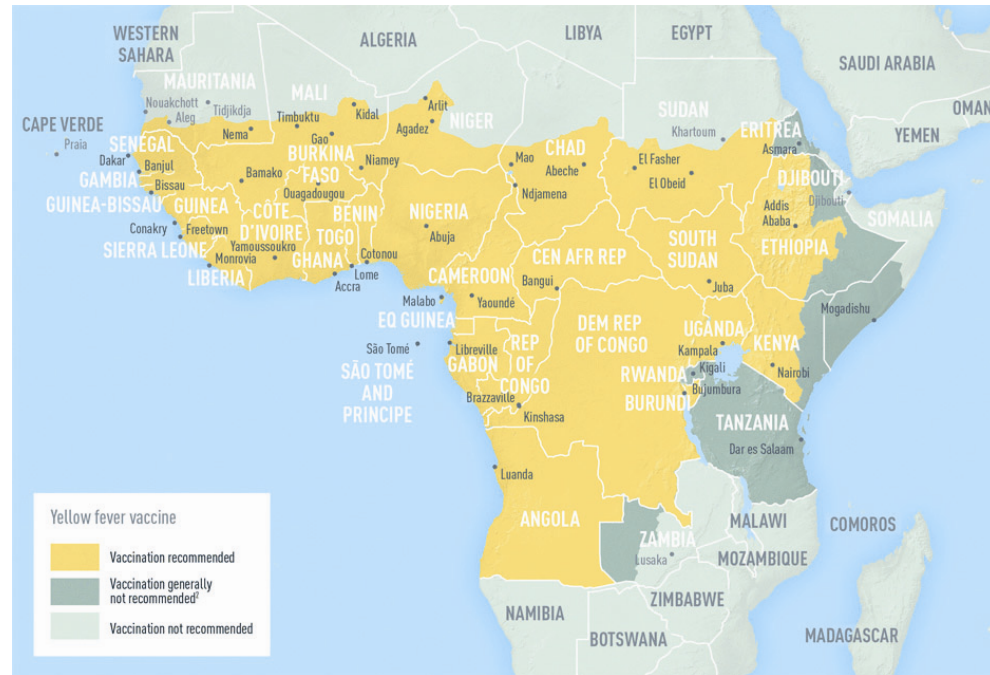
-  Country or territory with current Zika outbreak<sup>1</sup>
-  Country or territory that has ever reported Zika cases<sup>2</sup> (past or current)
-  Areas with low likelihood of Zika infection because of high elevation (above 6,500 feet/2,000 meters)
-  Country or territory with mosquito<sup>3</sup> but no reported Zika cases<sup>2</sup>
-  Country or territory with no mosquitoes that spread Zika

<sup>1</sup> No areas are currently reporting Zika outbreaks

<sup>2</sup> Locally acquired, mosquito-borne Zika cases

<sup>3</sup> *Aedes aegypti*

# Žlutá zimnice

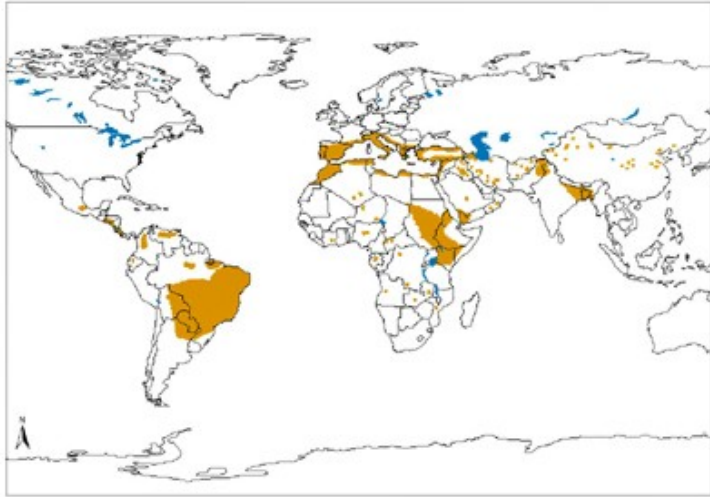




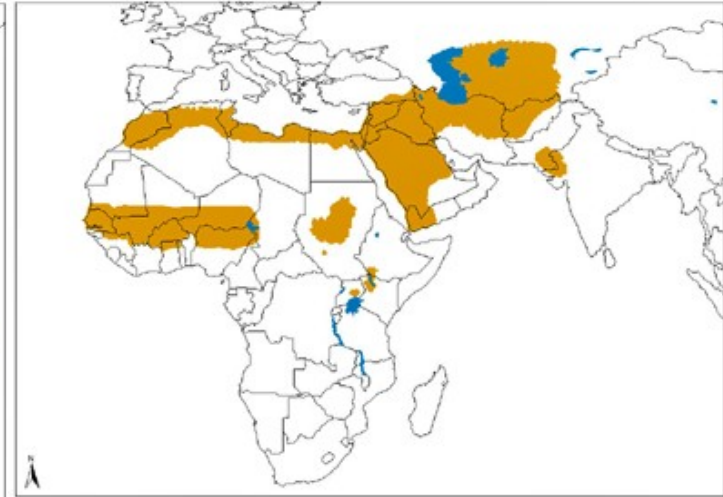


# Leishmanióza

viscerální forma



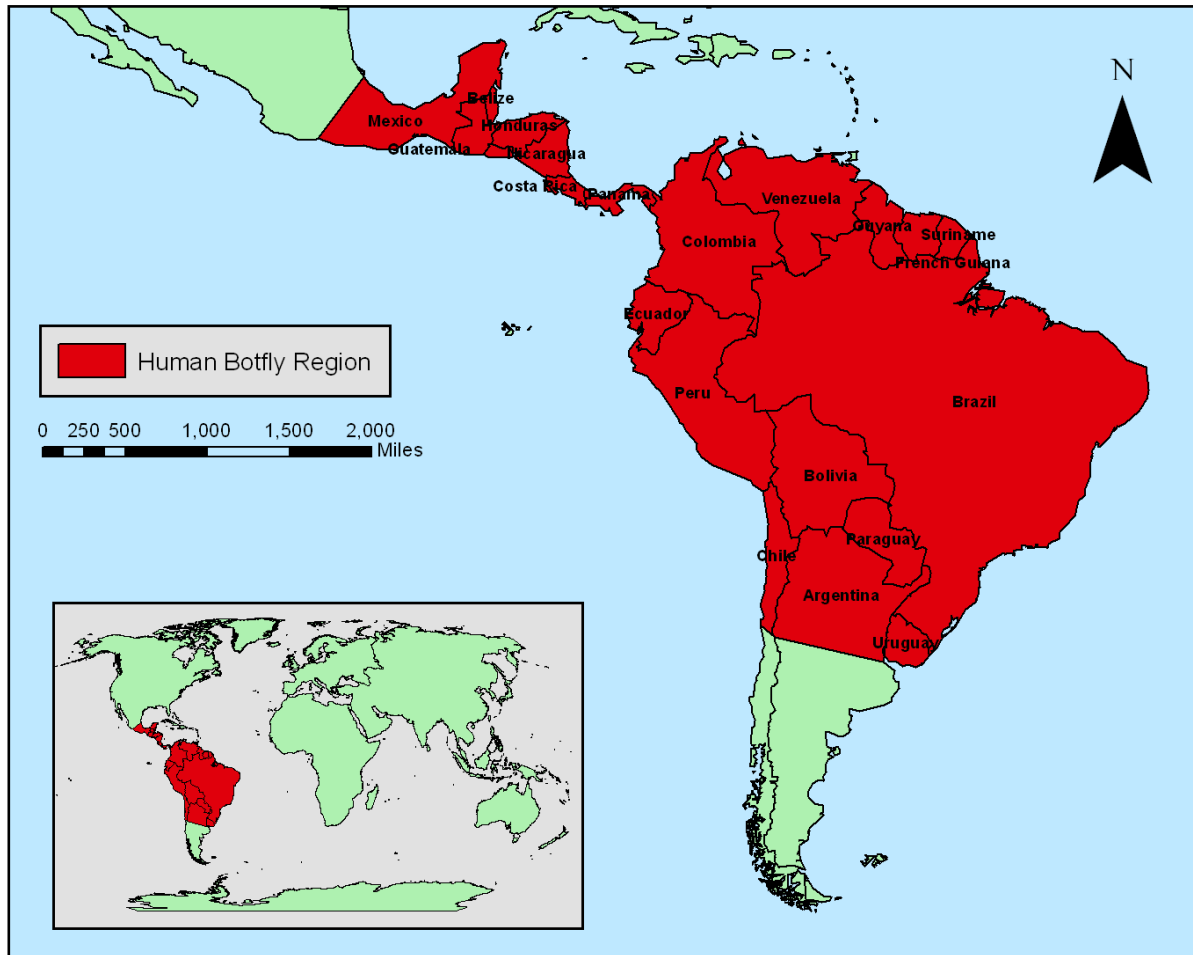
kožní forma





# Myiáza

## Physical Region of *Dermatobia Hominis* (Human Botfly)



Created by: Chelsea Fugate  
Projection: South America Lambert Conformal Conic  
University of South Florida Geography Dep.  
November, 2011

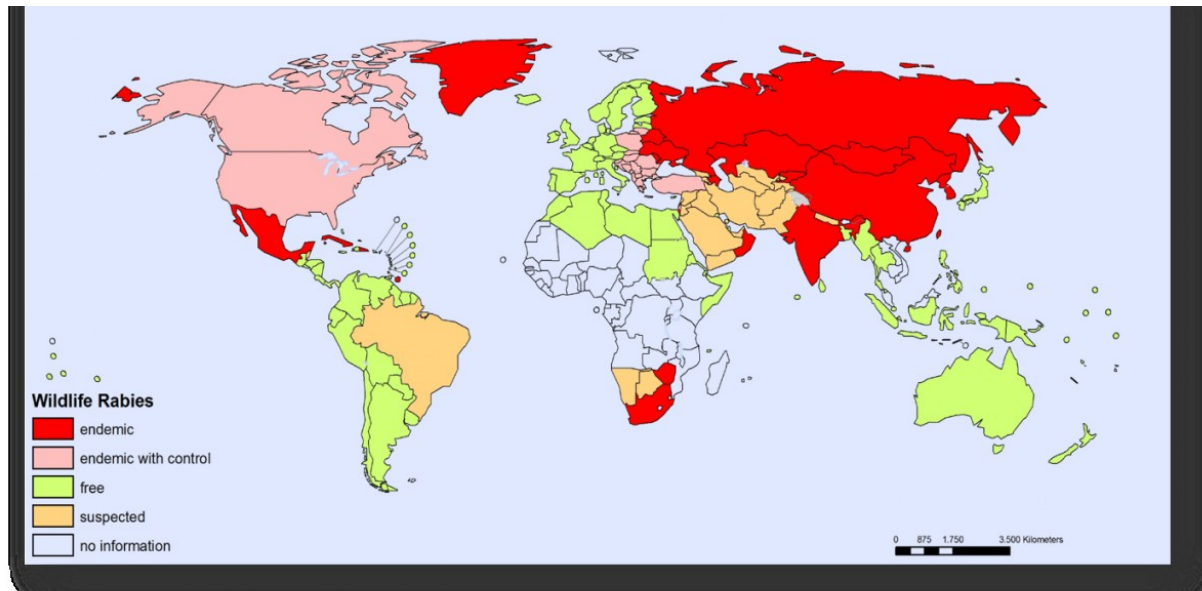
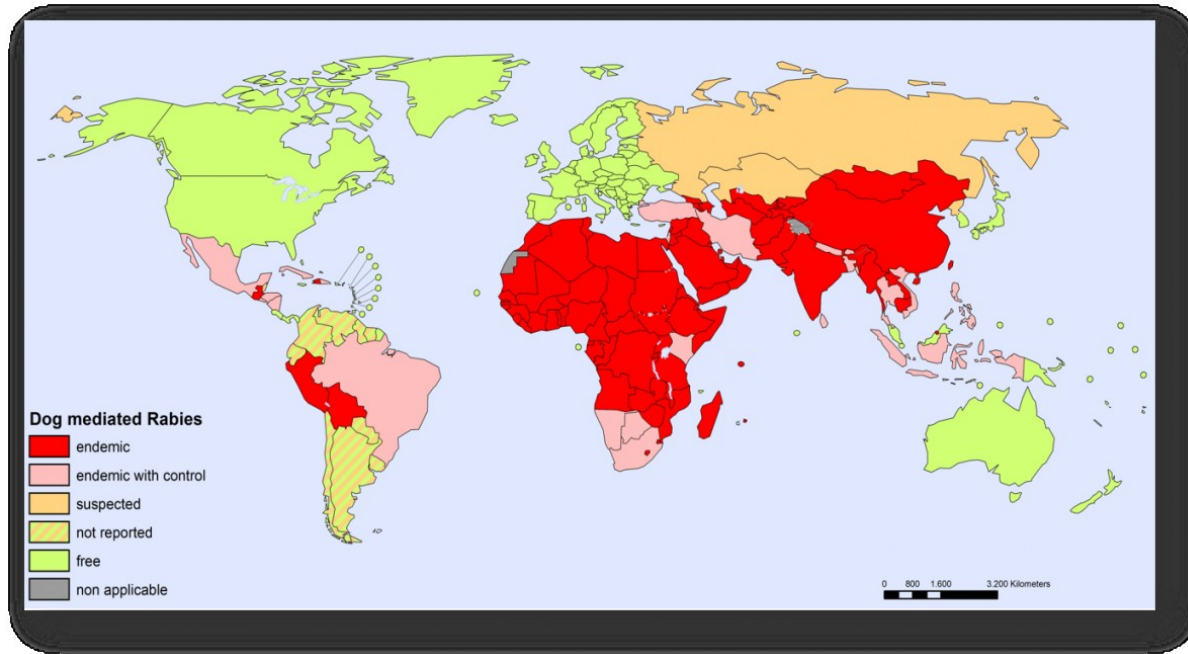
Data Sources:  
<http://en.wikipedia.org/wiki/Botfly>  
<http://ambergiscaye.com/pages/town/botfly.html>  
<http://animal.discovery.com/invertebrates/monsters-inside-me/human-botfly-dermatobia-hominis/>

# Myiáza

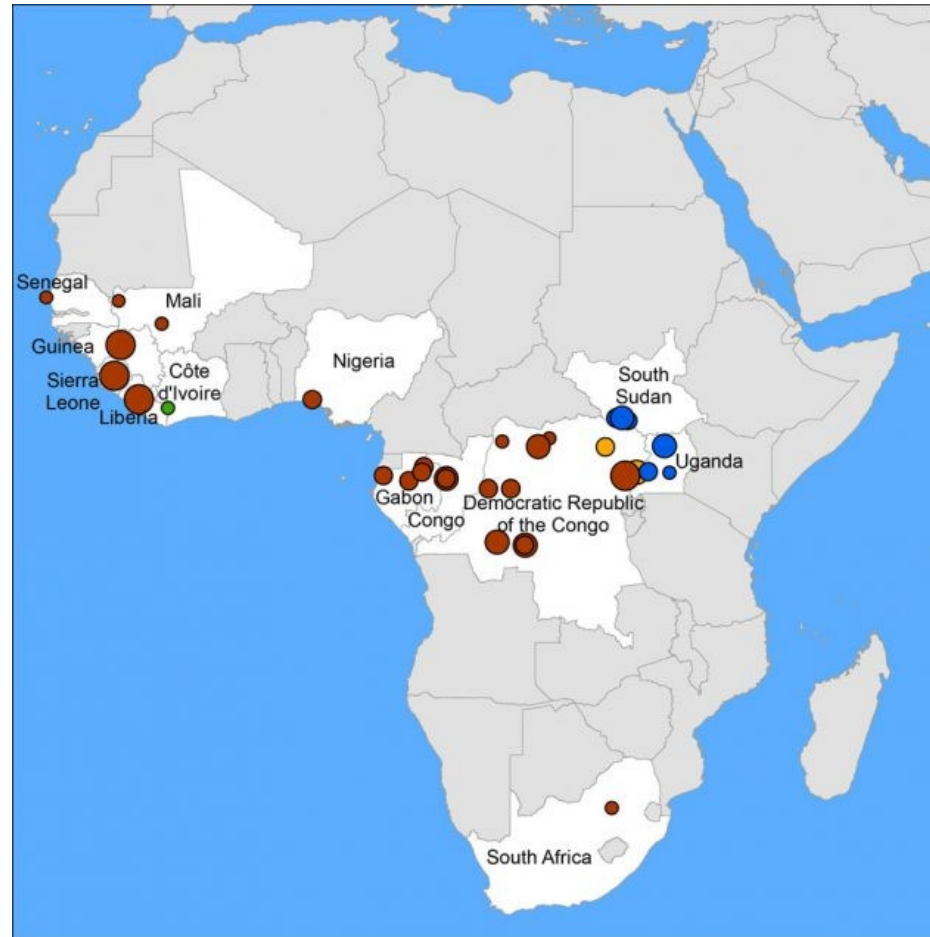




# Vzteklina



# Infekce přenášené přímým kontaktem – horečka ebola



## Species

- Zaire ebolavirus
- Sudan ebolavirus
- Tai Forest ebolavirus
- Bundibugyo ebolavirus

## Number of Cases

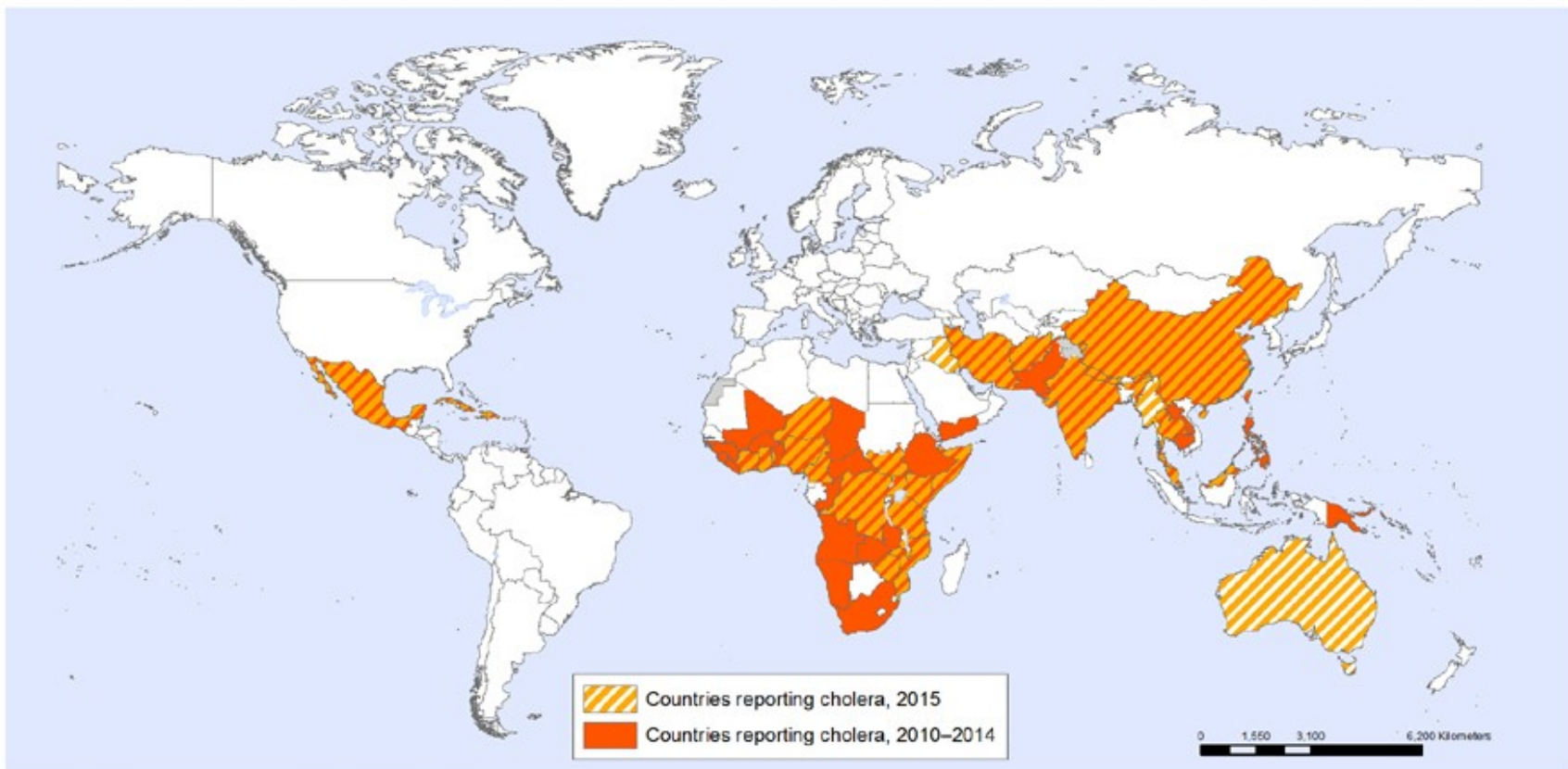
- 1 - 10
- 11 - 100
- 101 - 425
- Greater than 425



0 250 500 1,000 Miles

# Infekce přenášené jídelm / vodou - cholera

Countries reporting cholera, 2010–2015



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

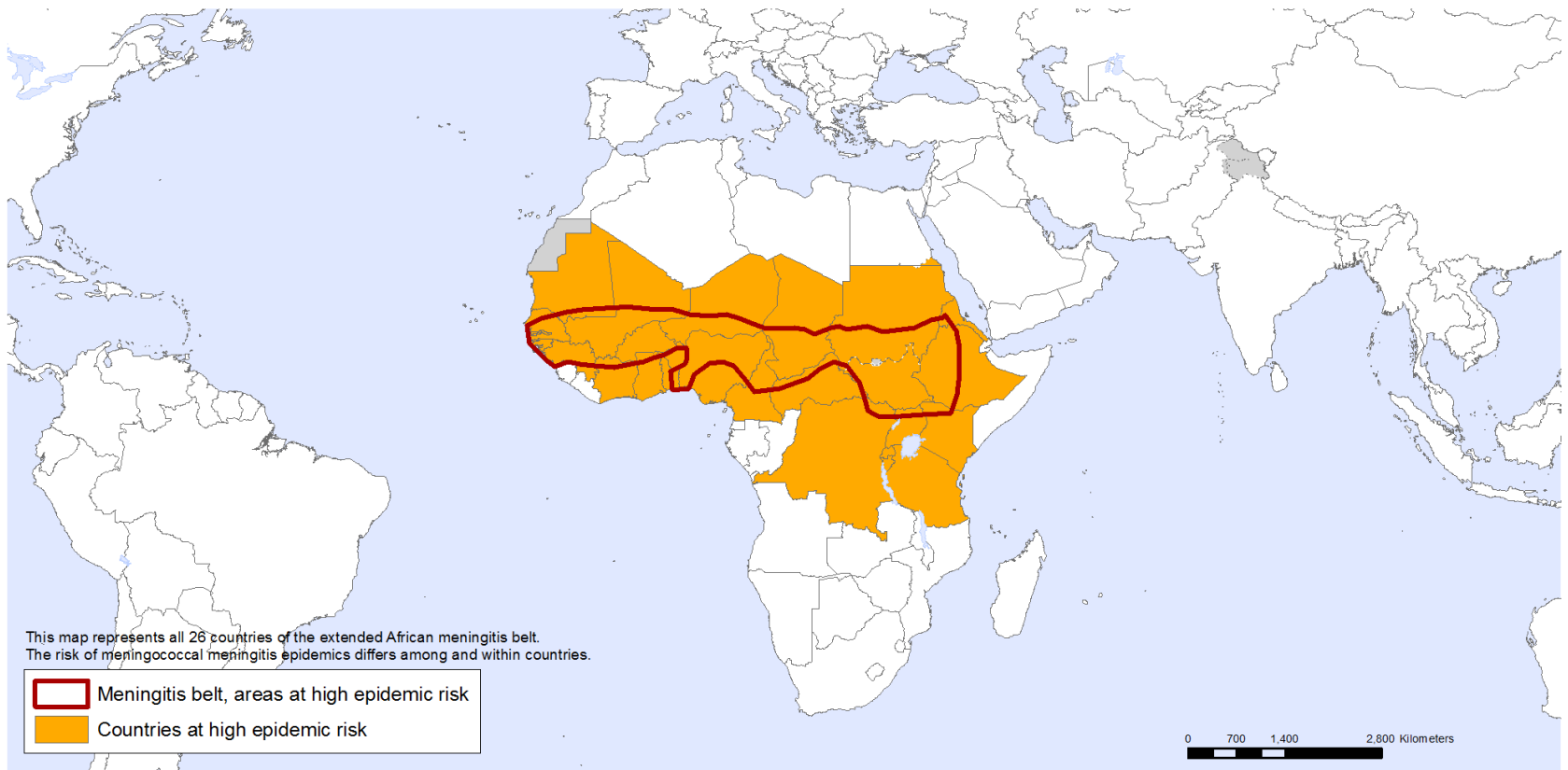
Data Source: World Health Organization  
Map Production: Information Evidence  
and Research (IER)  
World Health Organization



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# Infekce přenášené vzduchem - meningokoky

## Meningococcal meningitis, countries or areas at high risk, 2014



This map represents all 26 countries of the extended African meningitis belt. The risk of meningococcal meningitis epidemics differs among and within countries.

- Meningitis belt, areas at high epidemic risk
- Countries at high epidemic risk

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization  
Map Production: International Travel and Health  
World Health Organization



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# Infekce přenášené vzduchem - MERS-CoV

