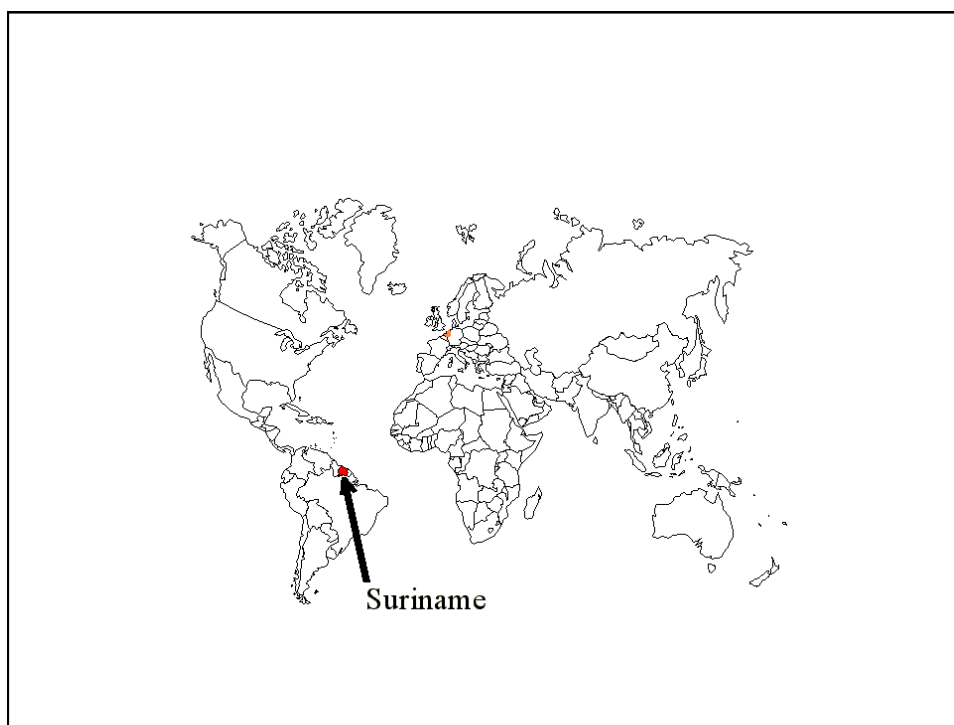


End report Bethesda Stichting Epidemiology of Leprosy in Suriname 1950 - 2012

HJC de Vries, dermatologie, AMC, Universiteit van
Amsterdam en GGD Amsterdam

Karin Sewpersad, Dienst Dermatologie, Paramaribo
Suriname.

- **mw. drs. K.Sewpersad, dermatologist,
Dermatological Service, Paramaribo Suriname**
- drs. L.O.A. Sabajo, dermatologist
- dr. H.E. Menke, dermatologist
- dr. J.E. Zeegelaar, dermatologist
- prof. dr. M Borgdorff, epidemiologist AMC
- prof. dr. F. G. Huisman, historian



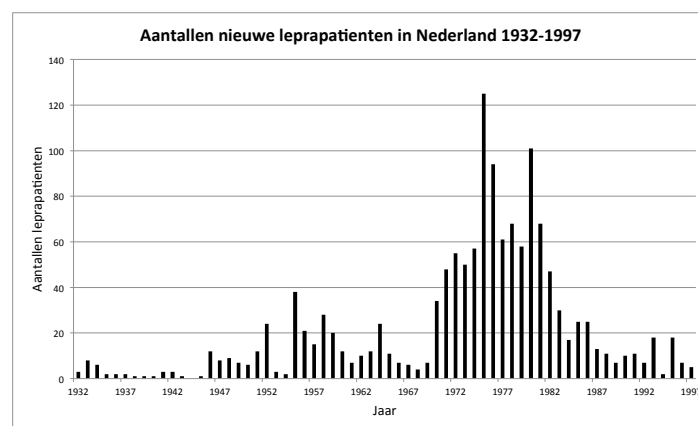
Current Epidemiological characteristics Suriname

	Total population N x 1000(%)
Total	1508
Median age in years (IQR)	29 (25-37)
Age in years	
<25	398 (26.4)
25-29	381 (25.3)
30-34	279 (18.5)
>=35	450 (29.8)
Ethnic Group	
Caucasian	19 (1.3)
Chinese	13 (0.9)
Creole	444 (29.4)
Hindustani	289 (19.2)
Indigenous	25 (1.7)
Javanese	177 (11.7)
Maroon	258 (17.1)
Mixed	277 (18.4)

Important historical events

- 1973 last leprosarium closed
- 1975 Republic of Suriname founded
 - emigration of Surinamese to the Netherlands
- In early 1980 Multidrug Therapy (MDT)
- Major political unrest
 - military coup
 - December murders
 - domestic guerilla fight

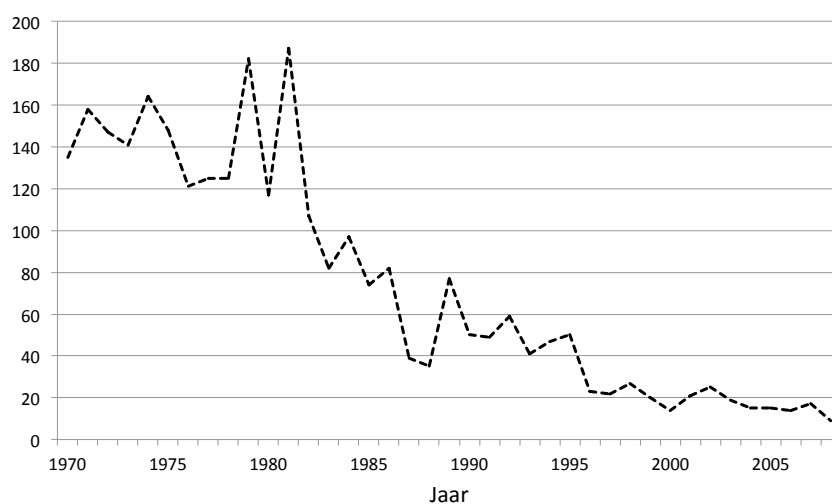
Number of new leprosy cases in the Netherlands 1932-1997



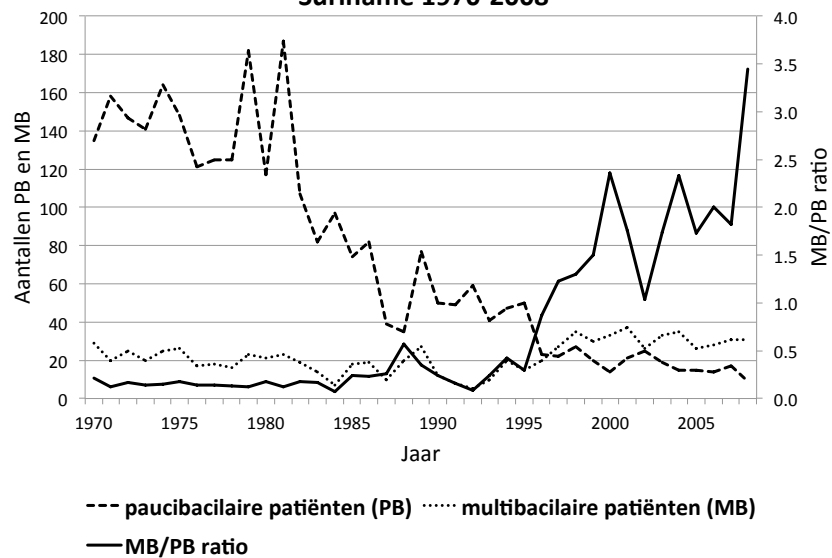
Background

- “Leprosy and Empire. The Shaping of Public Health Regimes in Multicultural Contexts: Suriname and the Dutch East Indies, 1800-1950”
- sharp decline paucibacillary (PB) leprosy patients
 - less infectious to their environment
- no drop multibacillary (MB) patients
 - very infectious to their environment
- In eastern Suriname, recently new pockets in MB patients
 - domestic guerilla fight
 - goldfields (Garimpeiros $n \approx 50.0000$)

Number of new leprosy cases Dermatological Service, Paramaribo Suriname 1970-2008



Numbers of new patients with paucibacillary-(PB) and multibacillary leprosy (MB) and MB / PB ratio, Dermatology Service, Paramaribo Suriname 1970-2008

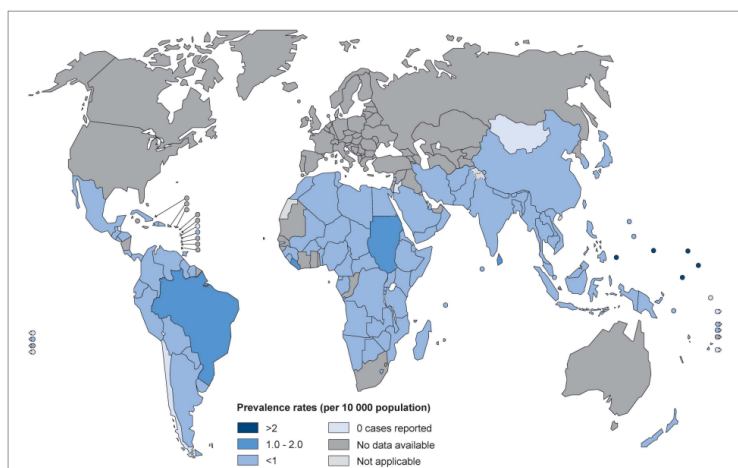


Location en impression of Goldmining village Benzdorp in East-Suriname



Geographical distribution

Leprosy prevalence rates, data reported to WHO as of beginning January 2011



State of Para, Brasil



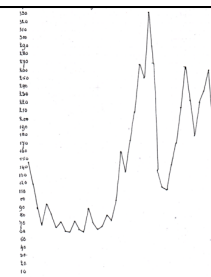
- 6,8 million inhabitants
- 4,57/10.000 new leprosy cases
 - in Suriname 0,65
- MB/PB ratio 0,54
 - in Suriname 1,8
- 30% below 15 yrs age
 - in Suriname 20%
- percentage grade 2 incapability 2,9%
 - in Suriname 7,1%

Research questions

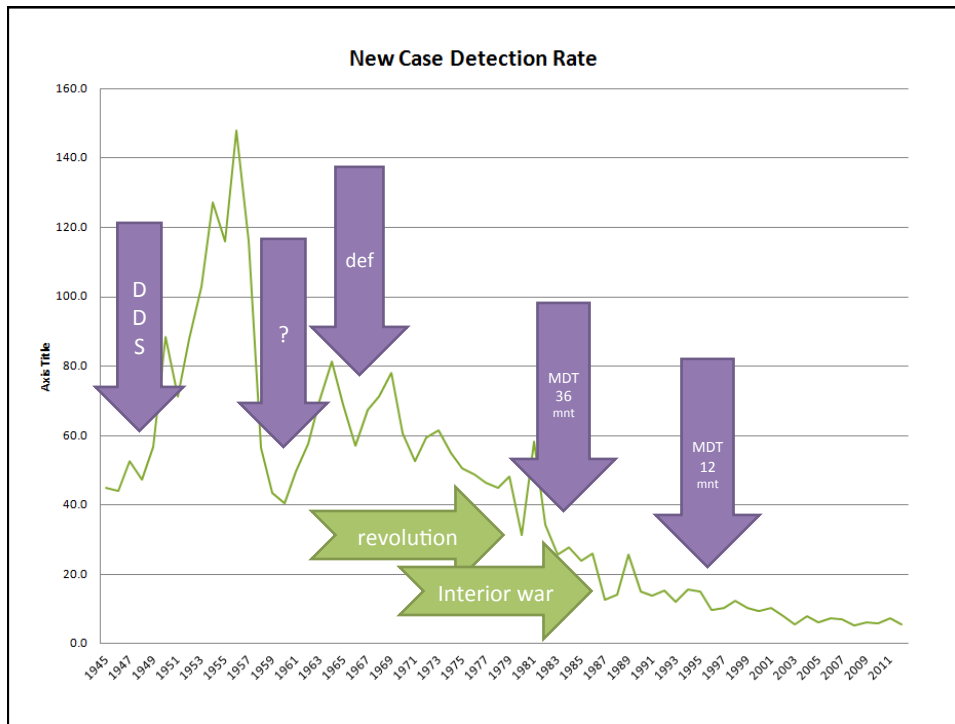
1. What was the incidence of leprosy in Suriname from 1960 until now?
2. What factors influence the dynamics of the recent MB / PB ratio?
3. What are risk areas and risk groups for leprosy in the current epidemic?

Introduction

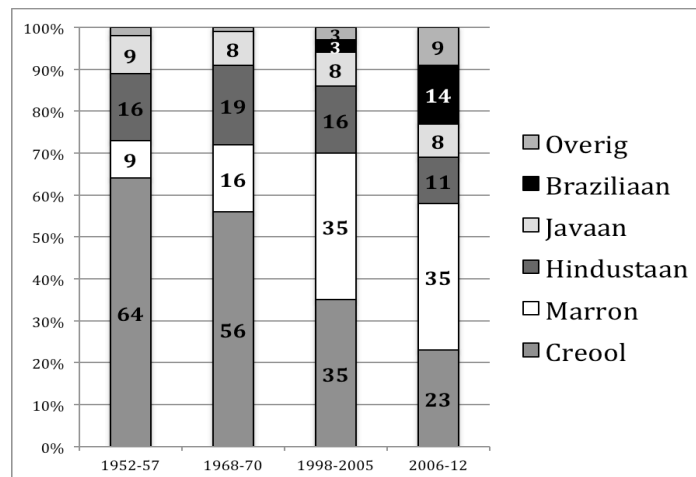
- Sources retrospective study
 - Archives (1950 – 1970)
 - Prof. dr. Edward van de Kuyp, Epidemiologist
 - Drs. S.J. Bueno de Mesquita, Leprologist
 - Presentations by drs. Leslie Sabajo, MPH, Dermatologist
 - 1970 - 1996
 - Access database (1996 -2013)
 - Dermatological services
 - drs. Leslie Sabajo, MPH, Dermatologist and s



WORK IN PROGRESS



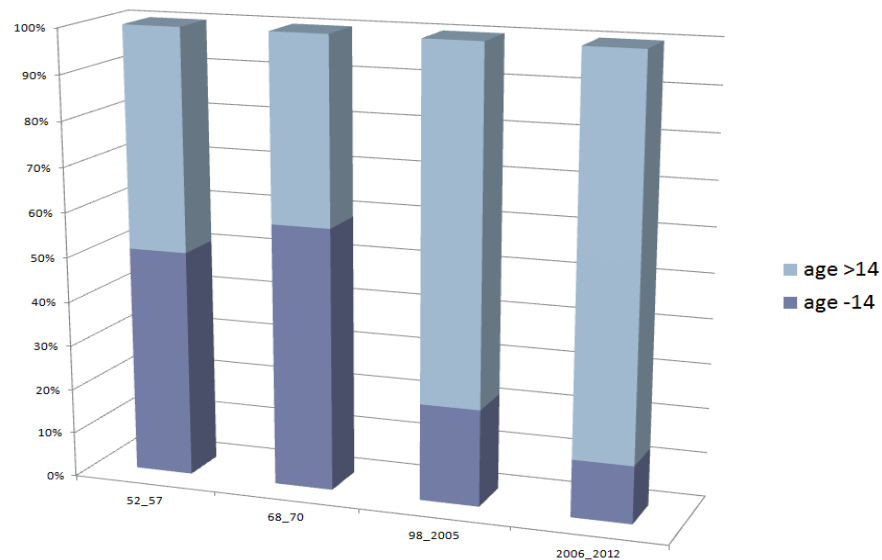
Distribution of new leprosy diagnoses among the various population groups in 1952-2012, Suriname



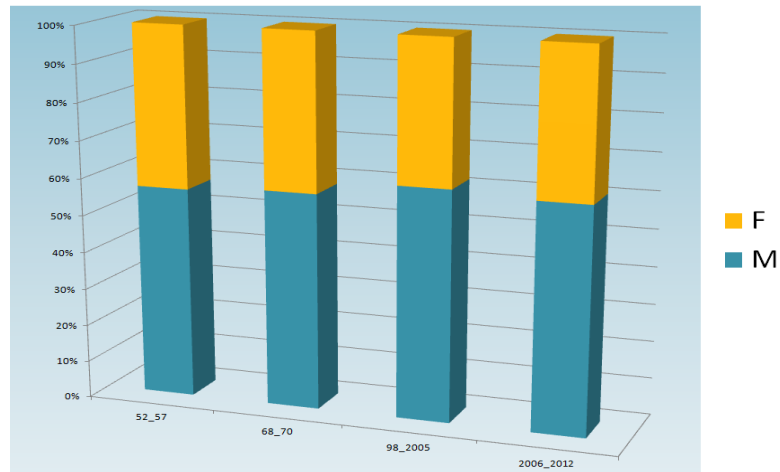
Ethnicity

- Why ?
 - Genetic differences
 - Cultural differences
 - Transmission (“crowding” , “cosy”)
 - Patient delay
 - Traditional medicine
 - Social pressure/stigma
 - Compliance
 - Jobs
 - Remote living conditions

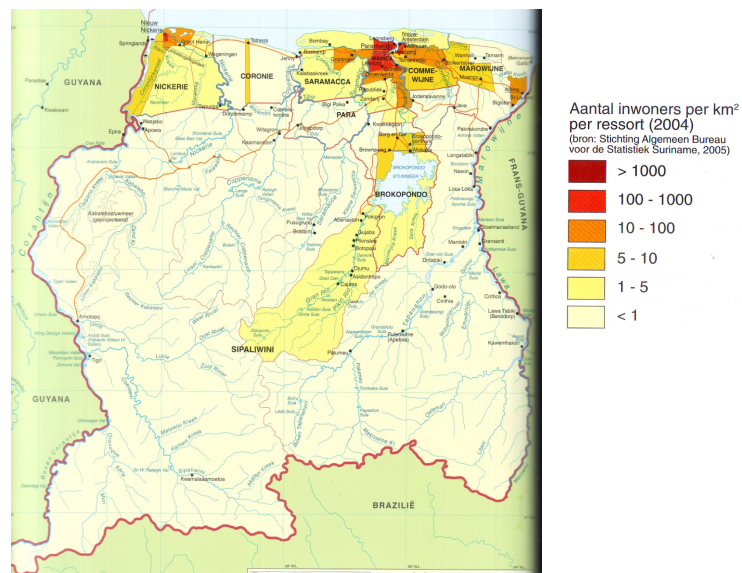
Age

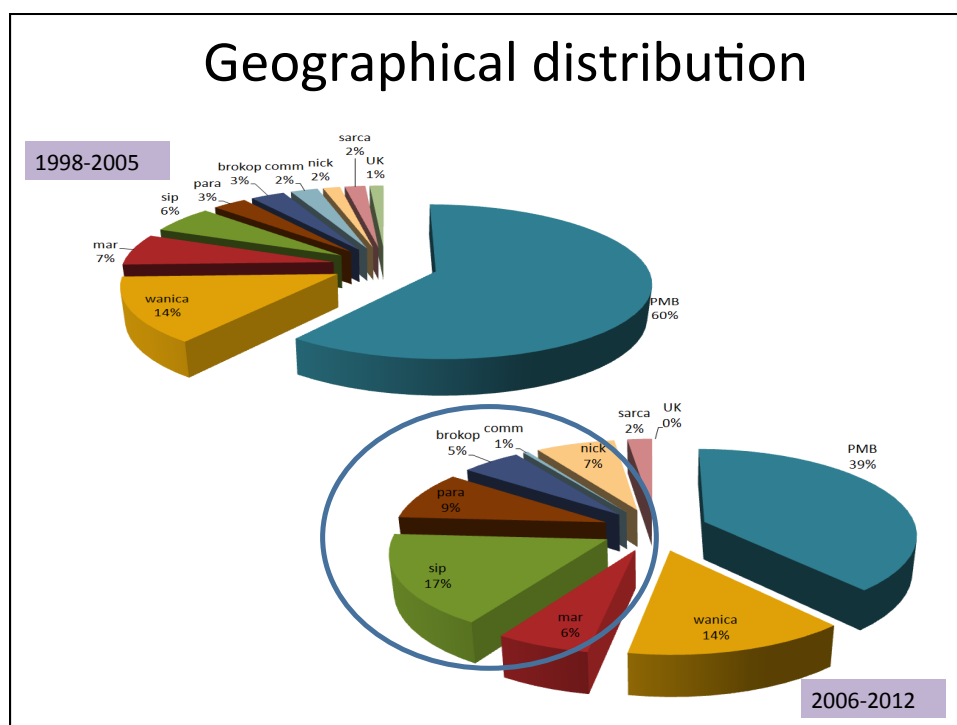
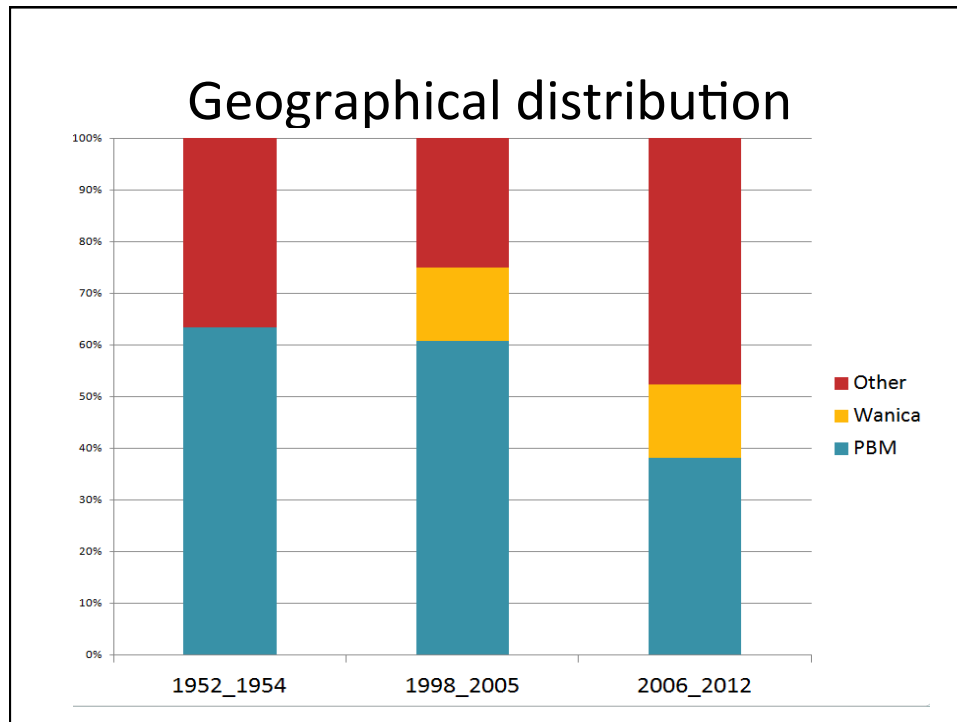


Gender



Geographical distribution



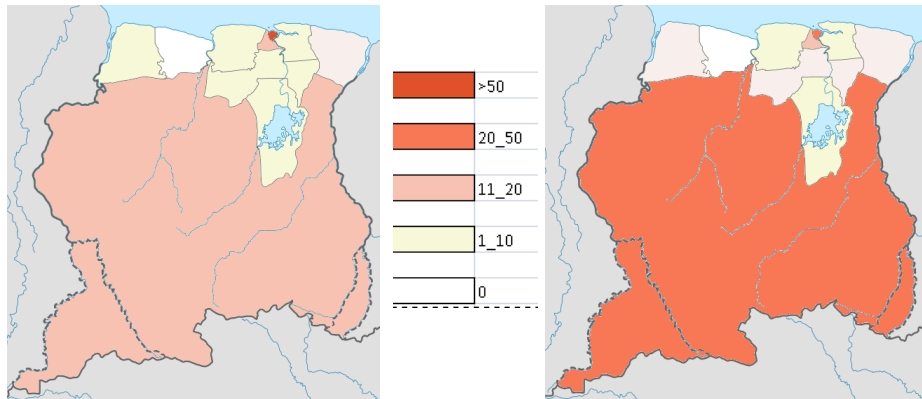


Geographical distribution

Absolute numbers/7 years

1998-2005

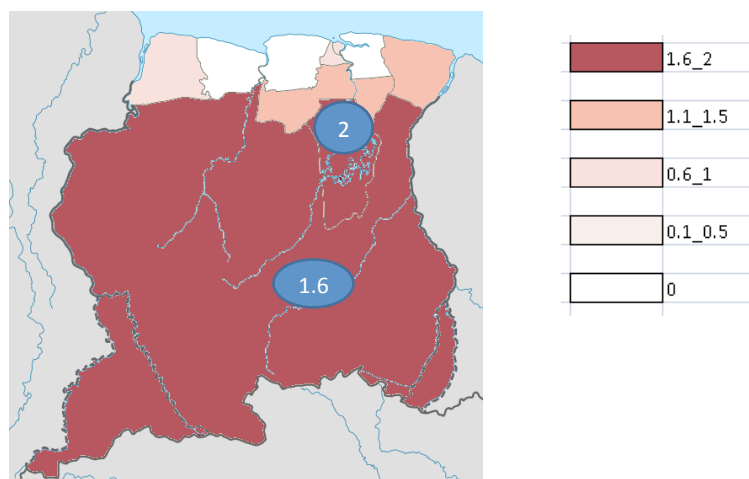
2006-2012



Brazilians working in the interior

Geographical distribution

Point prevalence 31 december 2012/10,000



Disability



Hands and feet

Grade 0 No anaesthesia, no visible deformity or damage

Grade 1 Anaesthesia present, but no visible deformity or damage

Grade 2 Visible deformity or damage present

Eyes

Grade 0 No eye problem due to leprosy; no evidence of visual loss

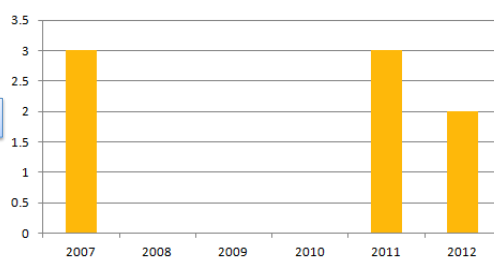
Grade 1 Eye problems due to leprosy present, but vision not severely affected as a result (vision: 6/60 or better; can count fingers at 6 metres).

Grade 2 Severe visual impairment (vision worse than 6/60; inability to count fingers at 6 metres); also includes lagophthalmos, iridocyclitis and corneal opacities.

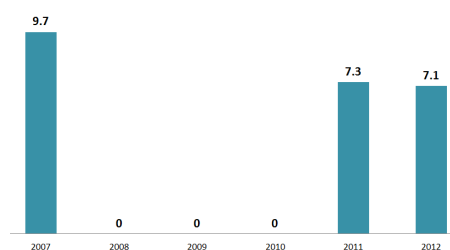
Disability

Grade 2 disability

Absolute numbers



Percentage of total



Lessons learned

- Summary
 - New case detection rate
 - Decline in number of new case
 - introduction of MDT
 - social-economical events
 - Type of leprosy
 - Decline of “paucibacillary leprosy”, status quo of “multibacillary leprosy”
 - Ethnicity
 - Shift : less creoles, more maroons, more Brazilians, less asians
 - Correction for population needed
 - Age
 - Less in children
 - Gender
 - Still almost equal number of cases

Lessons learned

- Summary
 - Geographical distribution
 - Shift out of Paramaribo
 - More cases out of interior (goldfields/Brazilians)
 - Disability
 - Still point of concern , needs attention, more Education about leprosy

Lessons learned

- Significance of statistics
 - Proper data collection lead sound conclusions
 - Quality check
 - Uniformity in notation in centers
- Targets
 - Prospective study
 - Clarify
 - Geographical distribution
 - Delay factors
 - More effective information and education

Work in
progress!!

check back soon...

Future projects

- **Leprosy fact-finding mission into the gold fields of East-Suriname**
- **Sharing data and expertise with leprosy dedicated healthcare workers in Suriname and Brasil**



Many thanks!