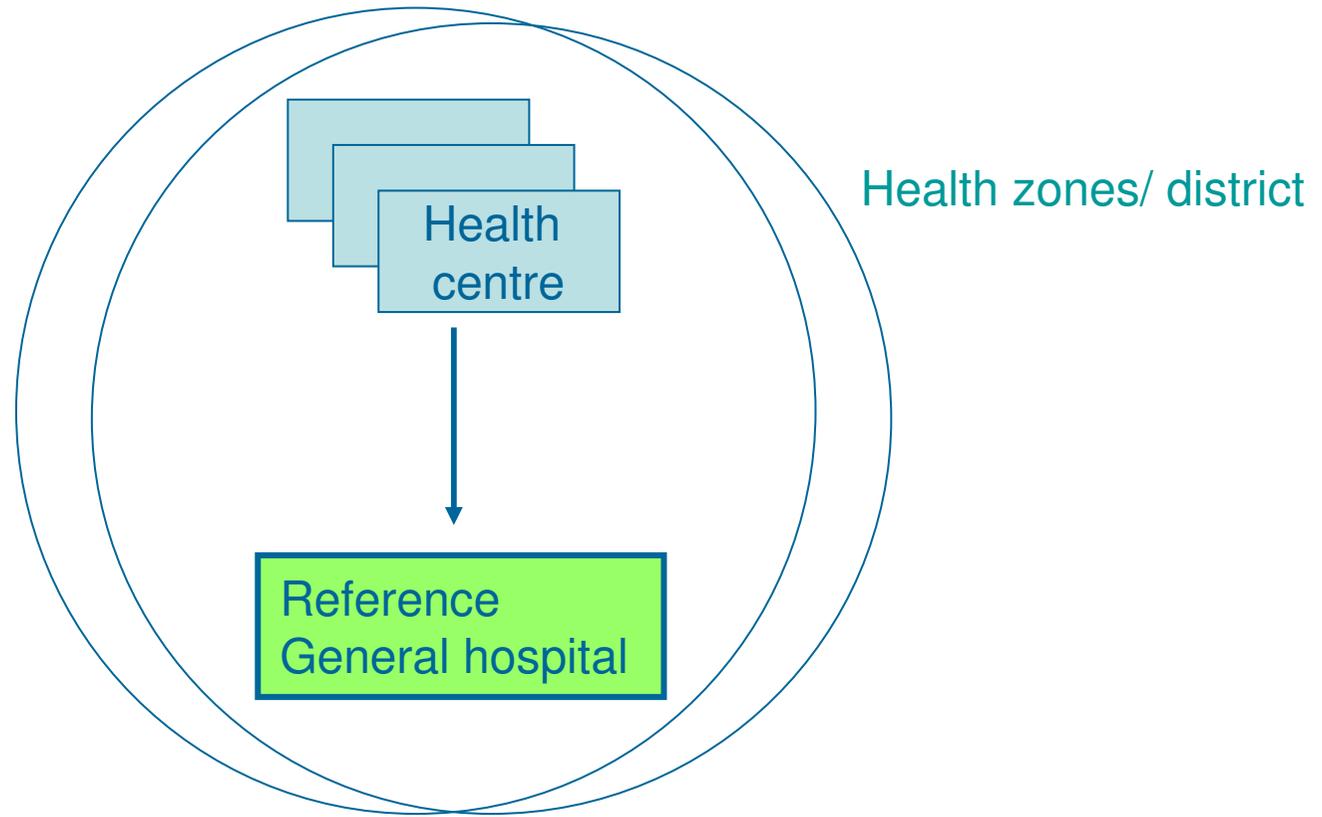


# Is comprehensive more effective? Vaccination covering and health system performance in North Kivu province, DR Congo.



- Democratic republic of Congo:
  - Low income developing country
  - Eastern part: conflict settings since years (including North Kivu)
  - North Kivu:
    - 5 millions inhabitants; area: 60.000 km<sup>2</sup>
    - Geographic hill setting
  - Health system based on primary health care organisation



Provincial inspection of health

Ministry of health





**Democratic  
Republic of Congo**

## North Kivu Map

25 health zones

Légende:

LACS: PERMANENTS



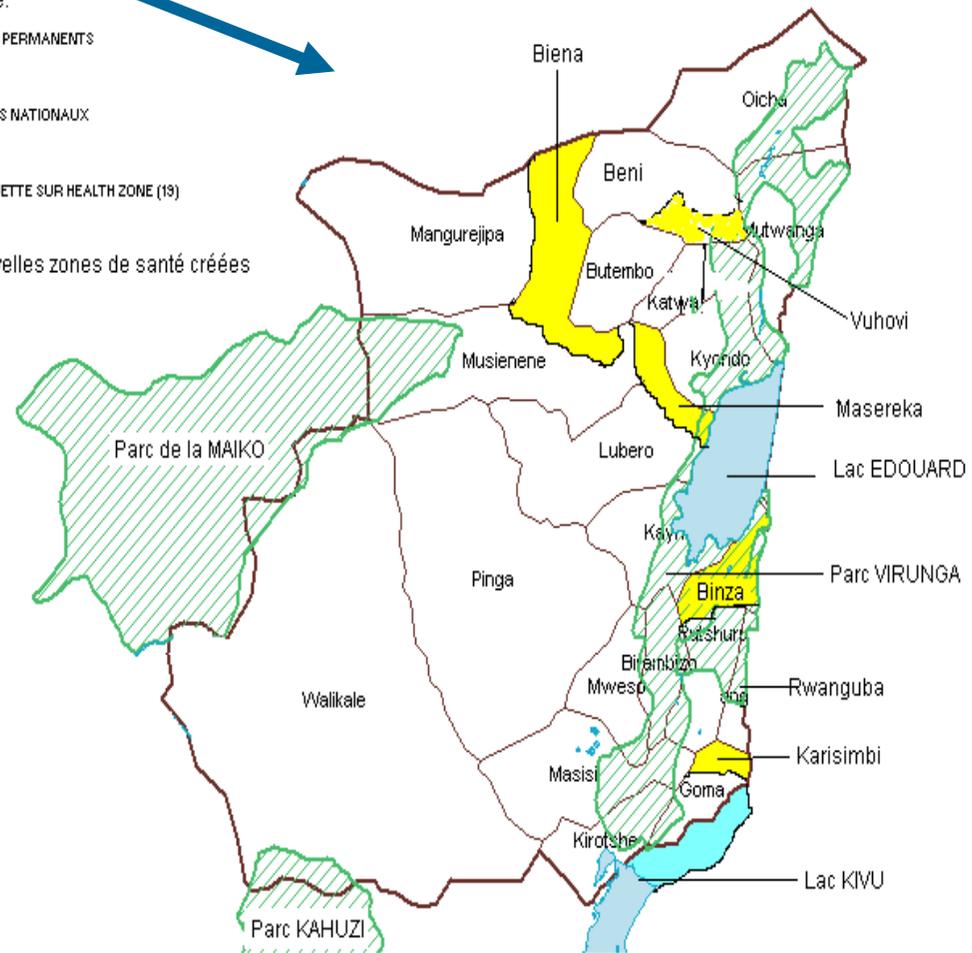
PARCS NATIONAUX



ETIQUETTE SUR HEALTH ZONE (19)



Nouvelles zones de santé créées



One Inch = 40,2 Miles



# Methodology

- Purpose of the study:
  - To find out arguments to promote systemic approach for health development in North Kivu.
- Design: epidemiological ecological study
  - Transversal analysis of vaccination performance according to the health center score.
  - Health center = primary unit of analysis.

# Methodology (2)

- Vaccination data obtained for 2004.
  - Sanitary health information (from GESIS program)
  - 399 health centres in North Kivu province dispatched into 25 health zones (total for the province =404 HC)

# Methodology (3)

- Datas: score construction (compared to provincial average) (1/ 0)
  - Utilisation of curative care consultations (new case/ inhabitant /year)
  - Antenatal care coverage (%)
  - Obstetrical coverage (%)
  - + Quinine out of stock



**SCORE BETWEEN 0 AND 4**

FOR EACH HEALTH CENTER

# Methodology (4)

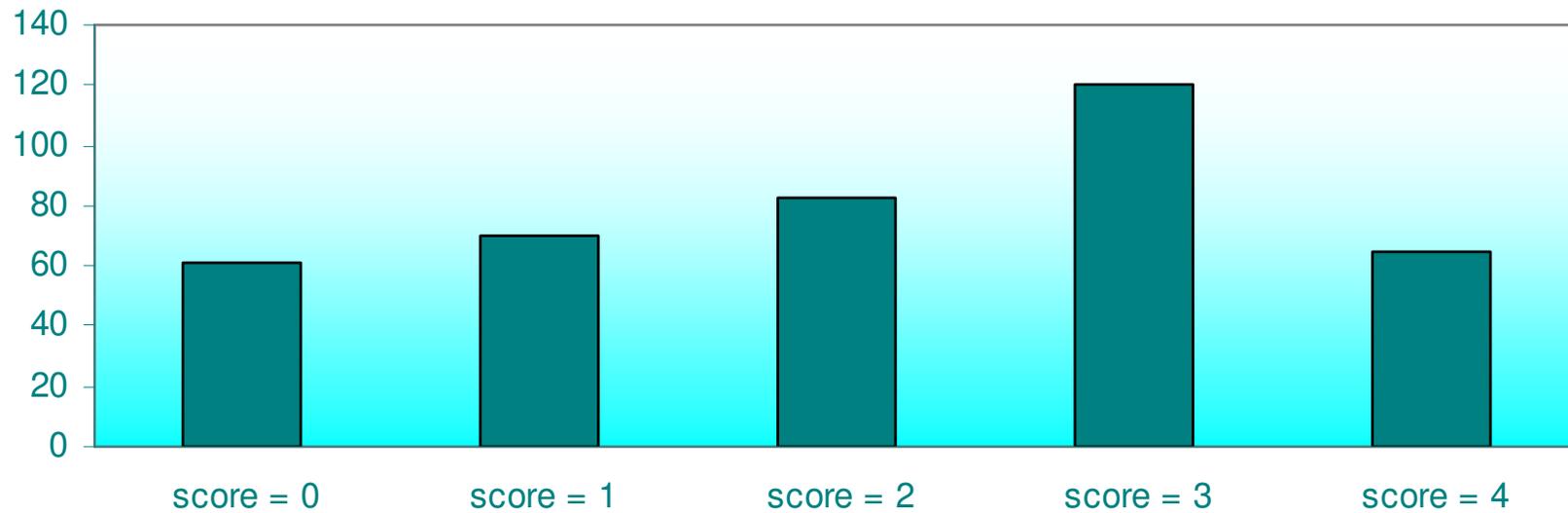
## **Provincial average:**

- Utilisation of curative care consultations (new case/inhabitant /year): 0,31 NC/yr
- Antenatal care coverage: 73 %
- Obstetrical coverage: 40 %

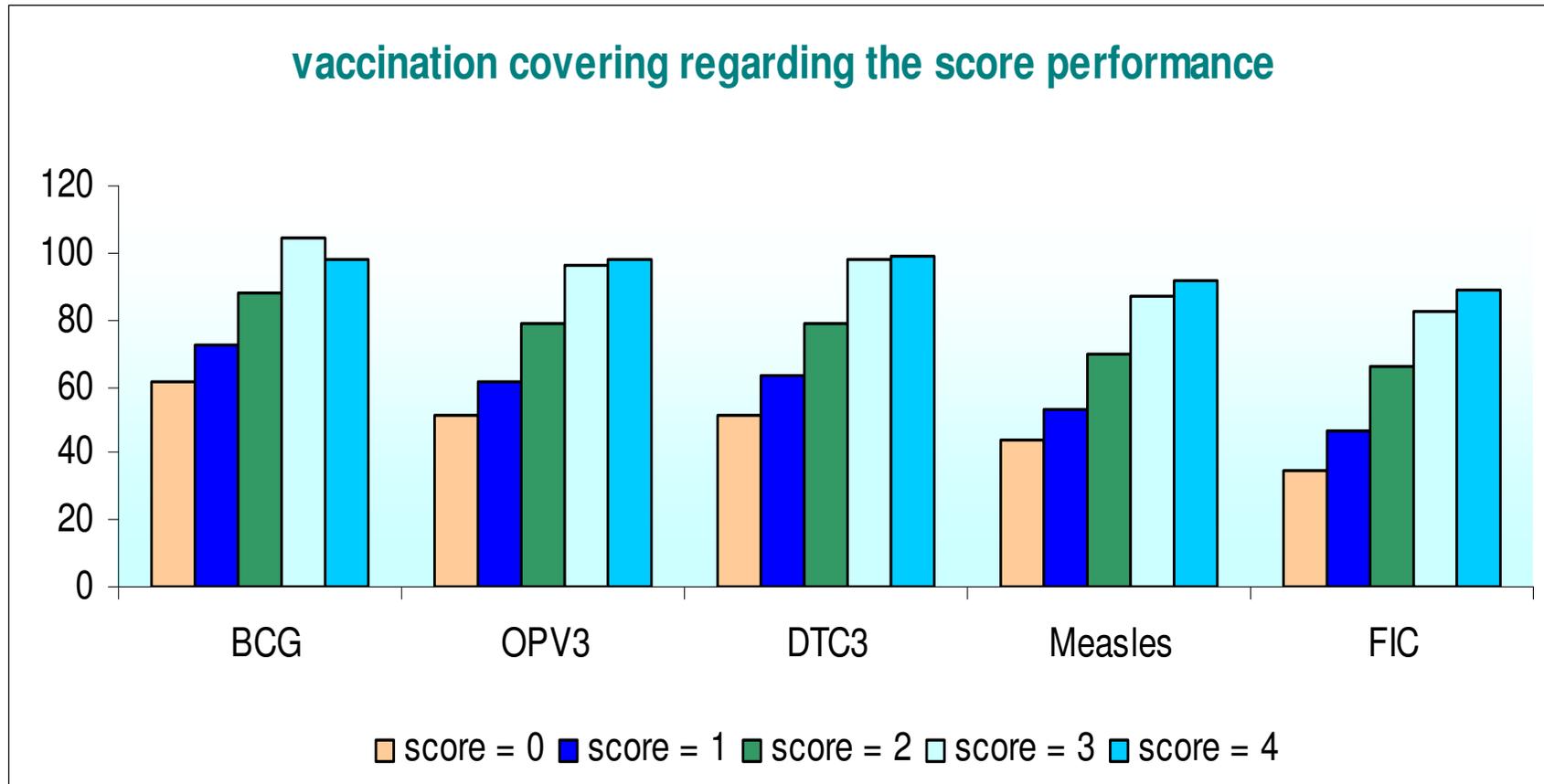
Quinine out-of-stock: only one rupture = 0

# Results (1)

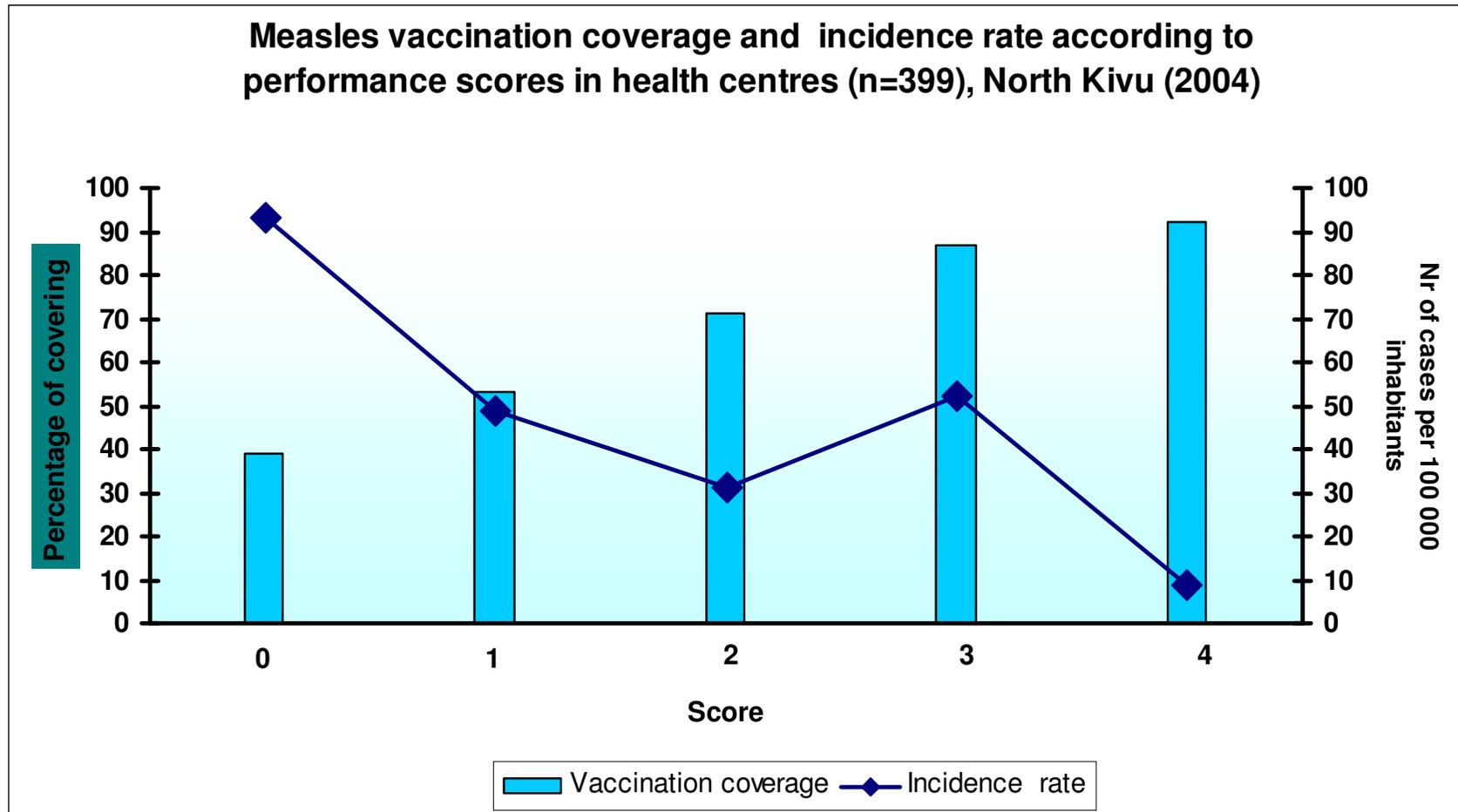
Number of health centres by score



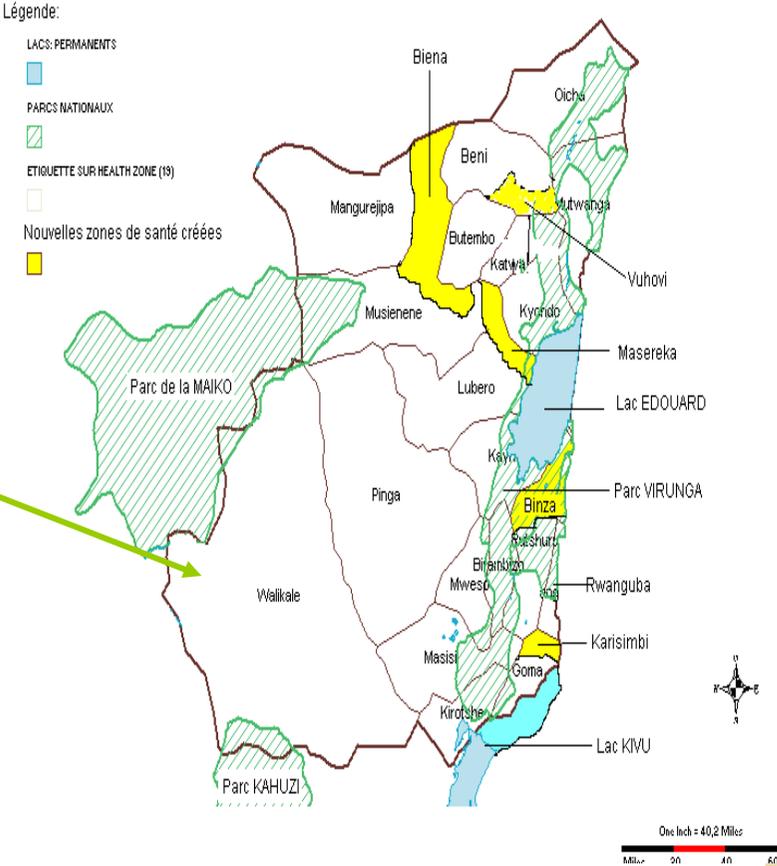
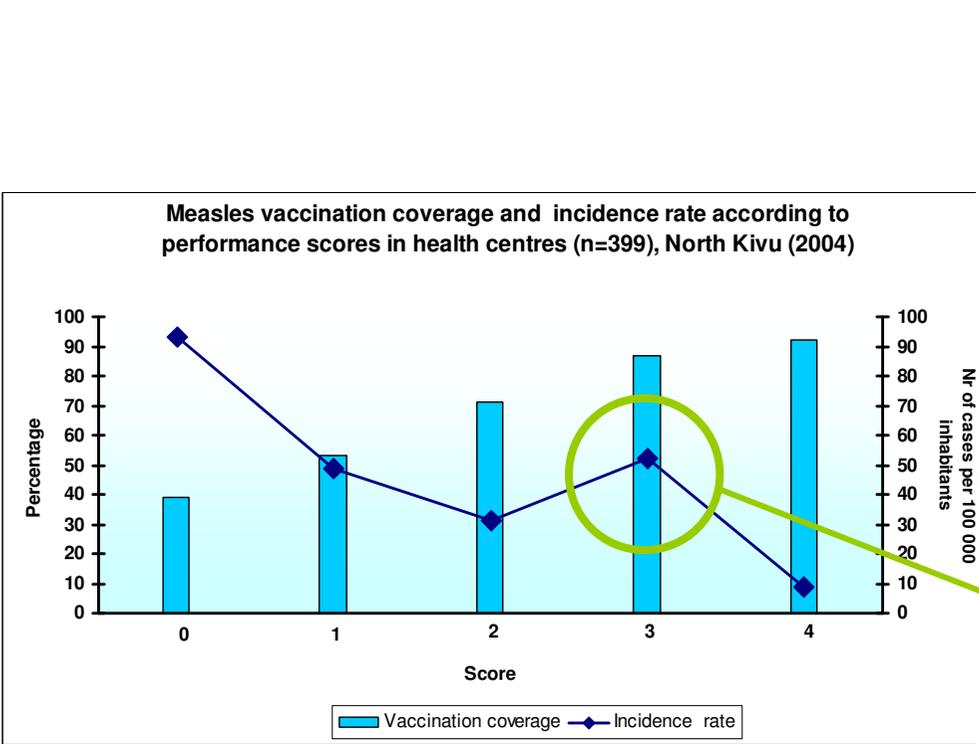
# Results (2)



# Results (3)

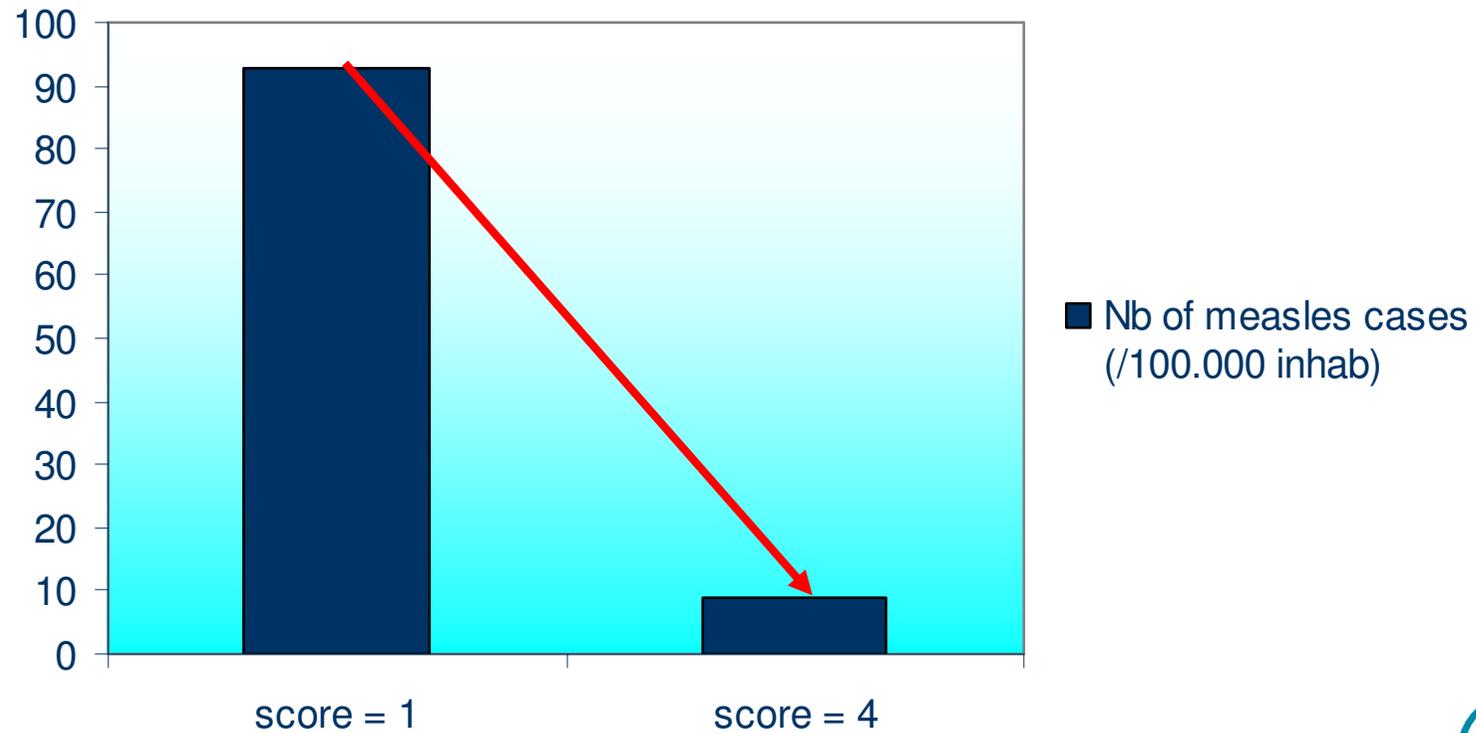


# Results (4)



# Results (5)

Nb of measles cases in 2004/ health centre (median)



# Conclusion

- Health centres performance are quite low in this region.
- Routine sanitary information could be usefull for basic performance analysis
- Integration of strategies = improvement of health system.

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