Evolution of the vaccination coverage in the district of of Ifanadiana

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# Background and objective

- **Background :** In Madagascar, the coverage vaccination is still very low (Measle, Bcg, Dtcoq, Polio Vaccine).
  - Way of getting vaccine : routine or campaign
  - Pivot : Implementation of health system strengthening activities since 2014

- **Objective :** To study the evolution of vaccination coverage in Ifanadiana and determine the relative contribution of routine and campaign vaccination

Methods

- Data colletion (Data from PIVOT)
- Descriptive study
- Statistic Modeling : logistic regression
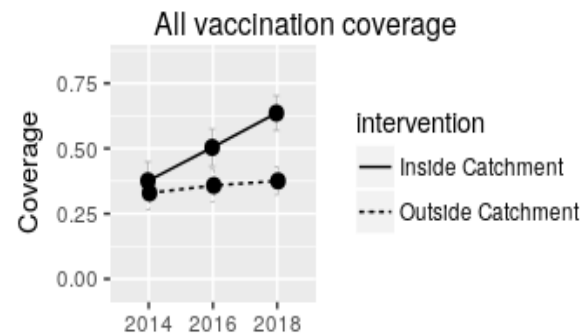 linear mixed model(random effect= cluster)

Descriptive Result (1)

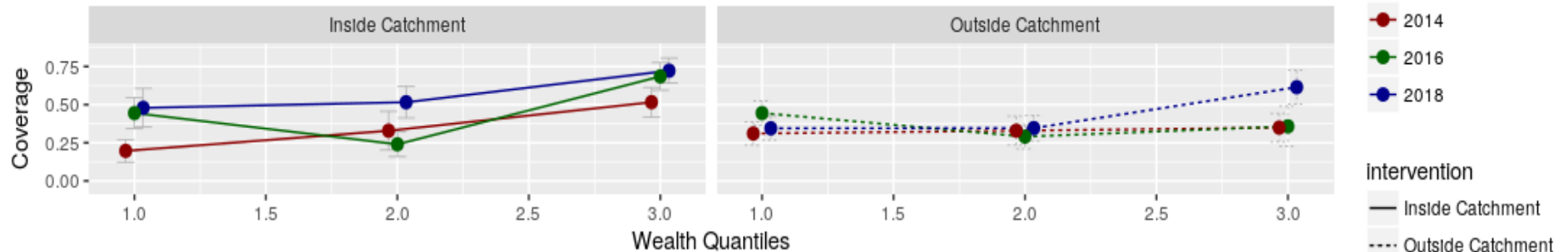**Coverage in years for inside and outside catchment of PIVOT**
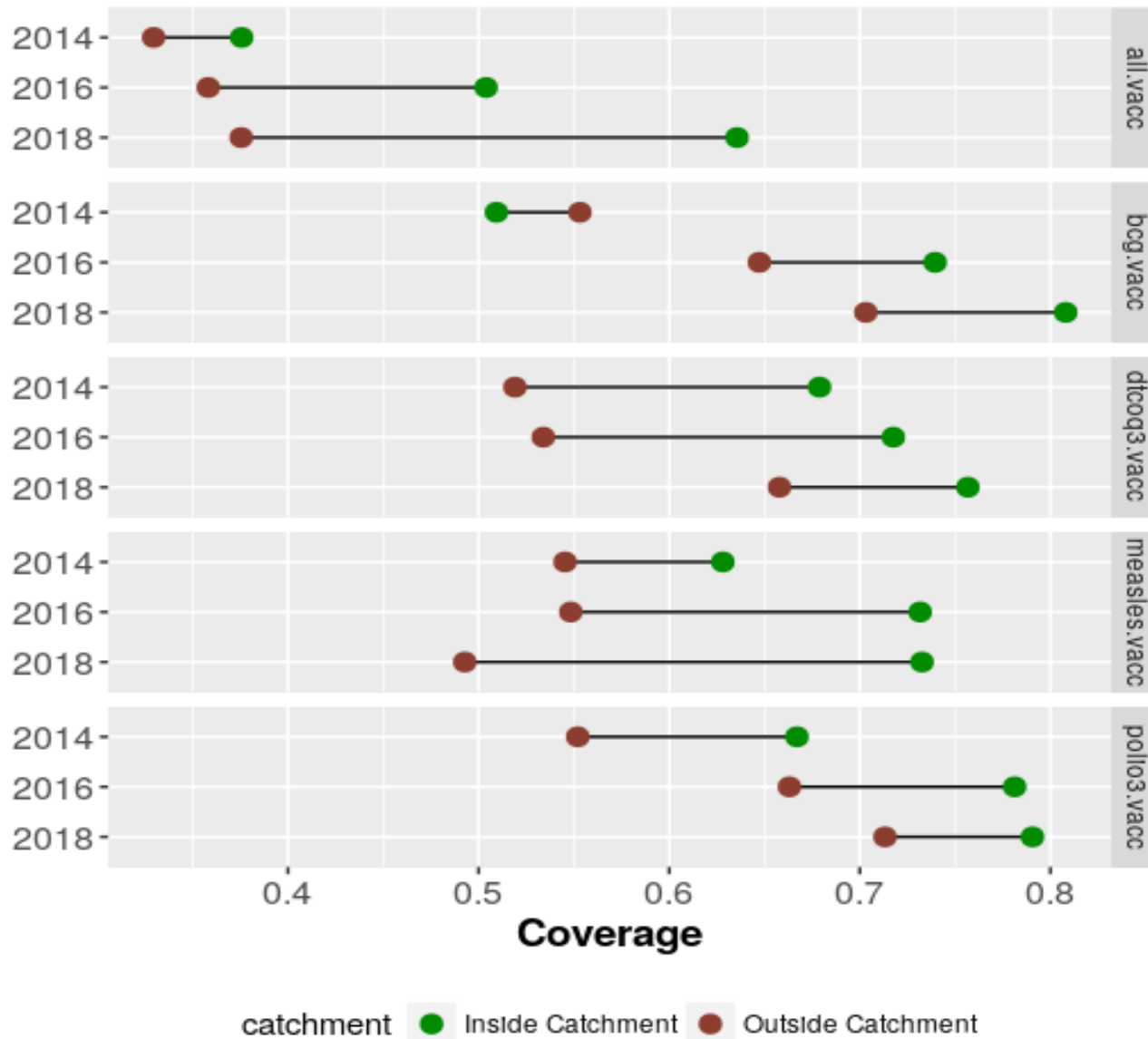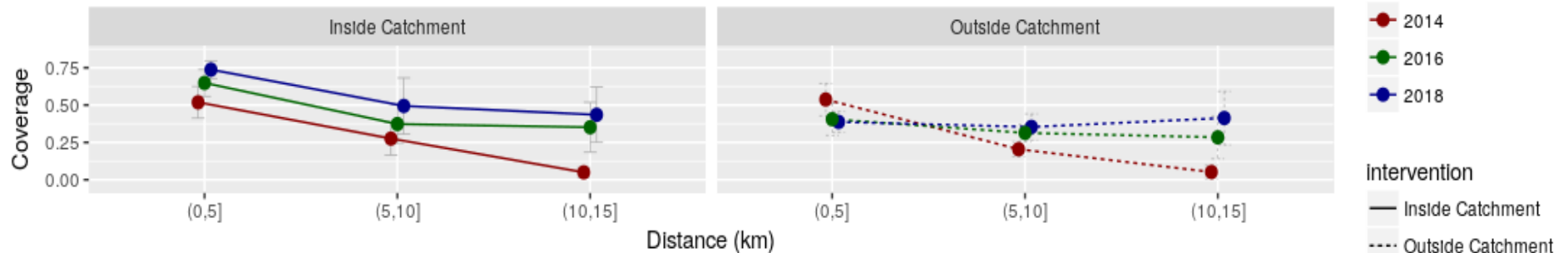
Descriptive Result (2)

Coverage accross socio-economic and distance groups

Descriptive Result (3)

Coverage accross socio-economic and distance groups
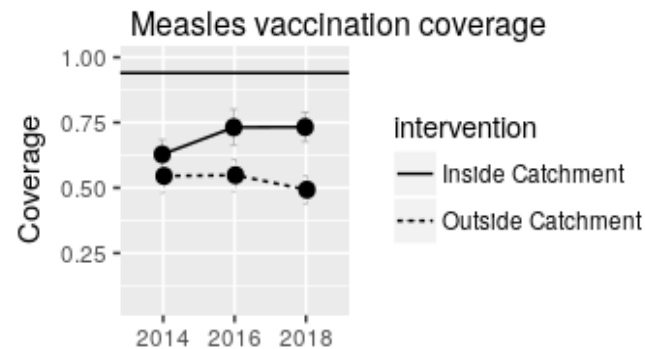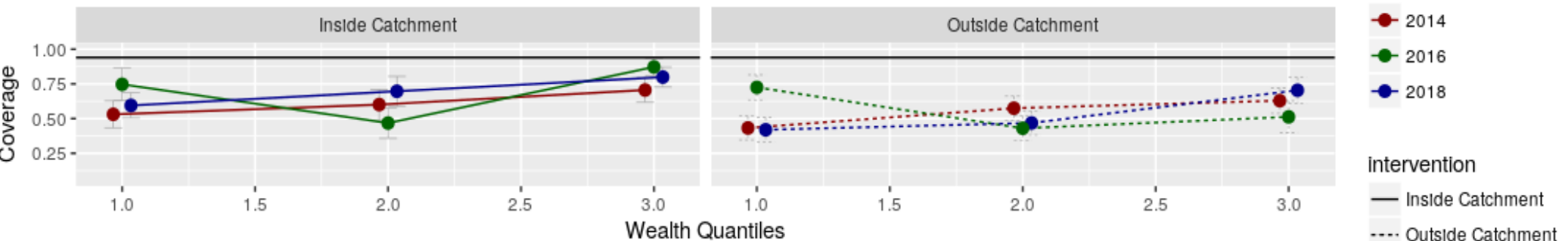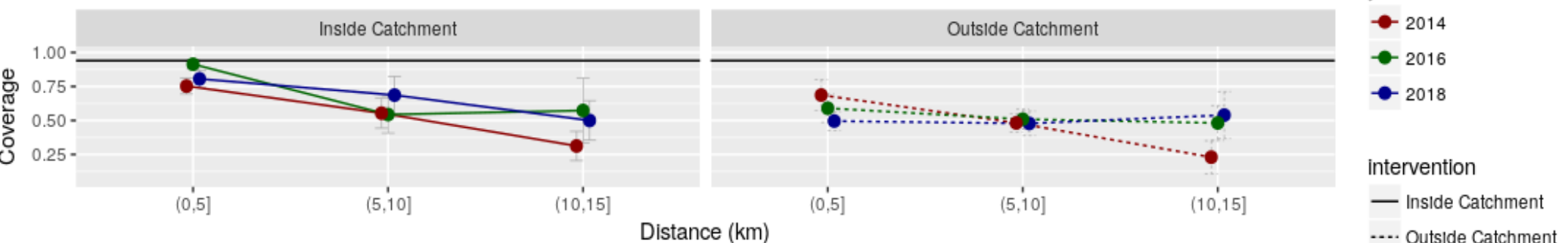
Age vaccination in 2016
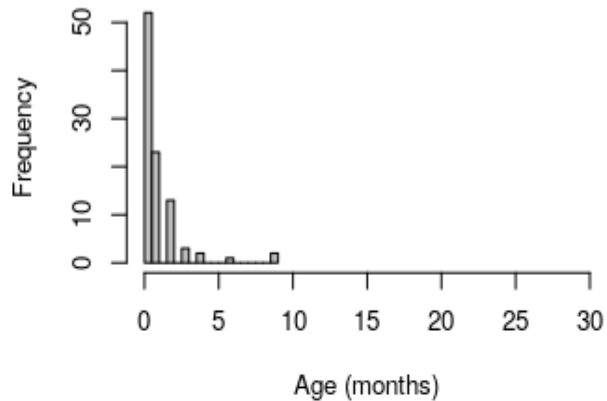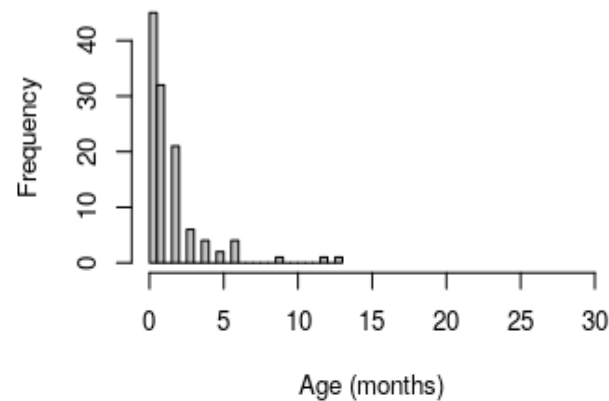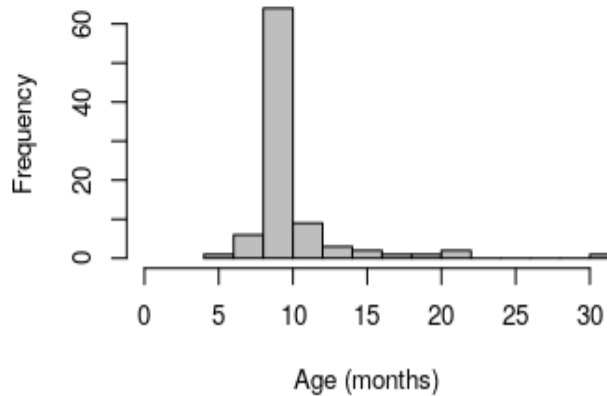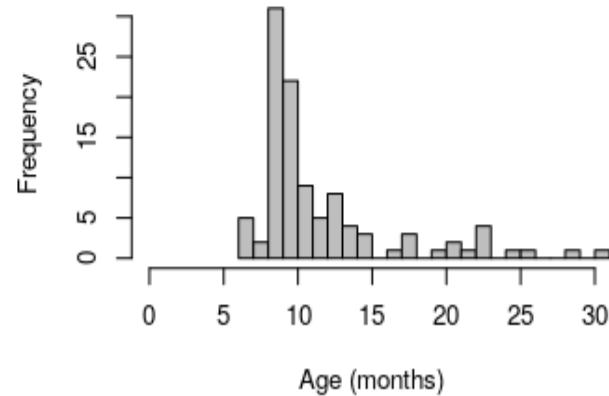
Model

- Generalized linear model

  - glm(all vaccine~intervention+ +distance+wealth_class+intervention*years, data=children_all,family= binomial)

- Mixed modelling (random effect cluster)

  glmer(all vaccine~ wealth_class+years+ +csb.dist+intervention*years+(1|cluster), data=children_all, family=binomial)

Analytic Result

	Glm model for the coverage vaccination	
Variables	Odds Ratio	P-value
Intervention (0-1)	0.80	0.0512 .
Socio-economic class (richest vs poorest)	1.25	7.02e-09 ***
Distance from CSB (km)	0.92	6.14e-15 ***
years	1.06	0.02 *
Intervention*years	1.14	0.00392 **

Perspectives

- Improve existing model of vaccination coverage
- Model the timeliness of vaccination
- Use health system data to reinforce the analysis