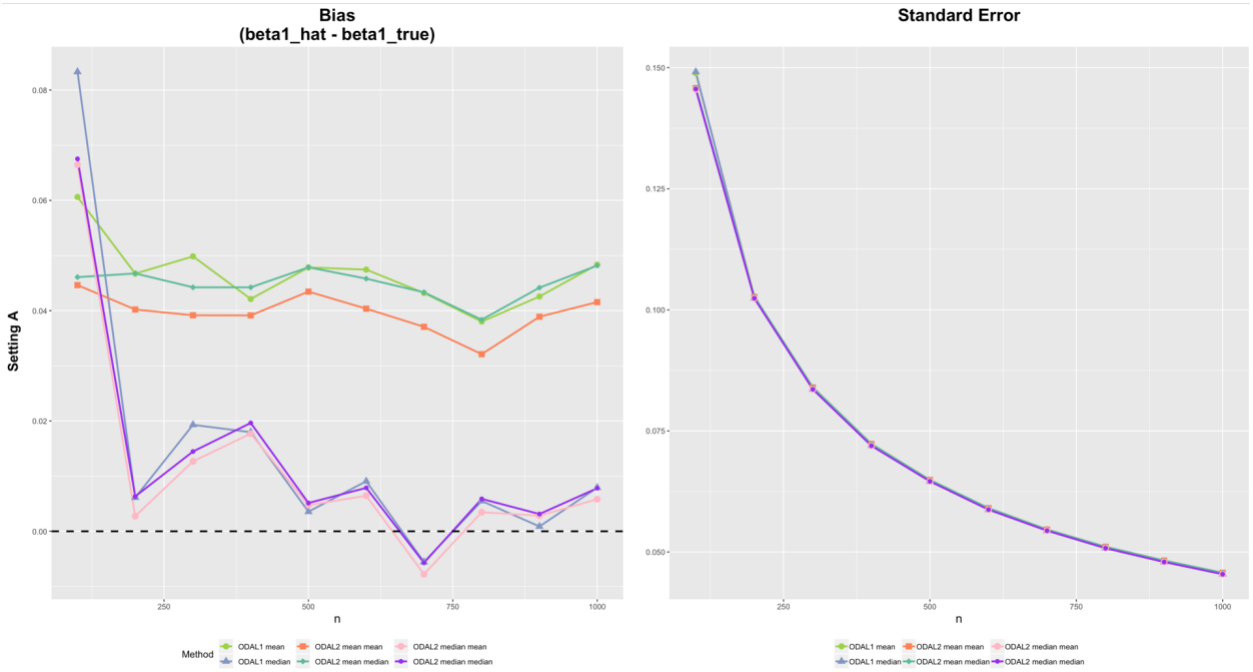
ODAL Simulation

- **10 sites (K = 10)**
- **each site size (nn) from 100 to 1000**
- **total size (N) from 1000 to 10,000**
- **replicates = 50**

1/10 HETERO & ONE variable (binary)

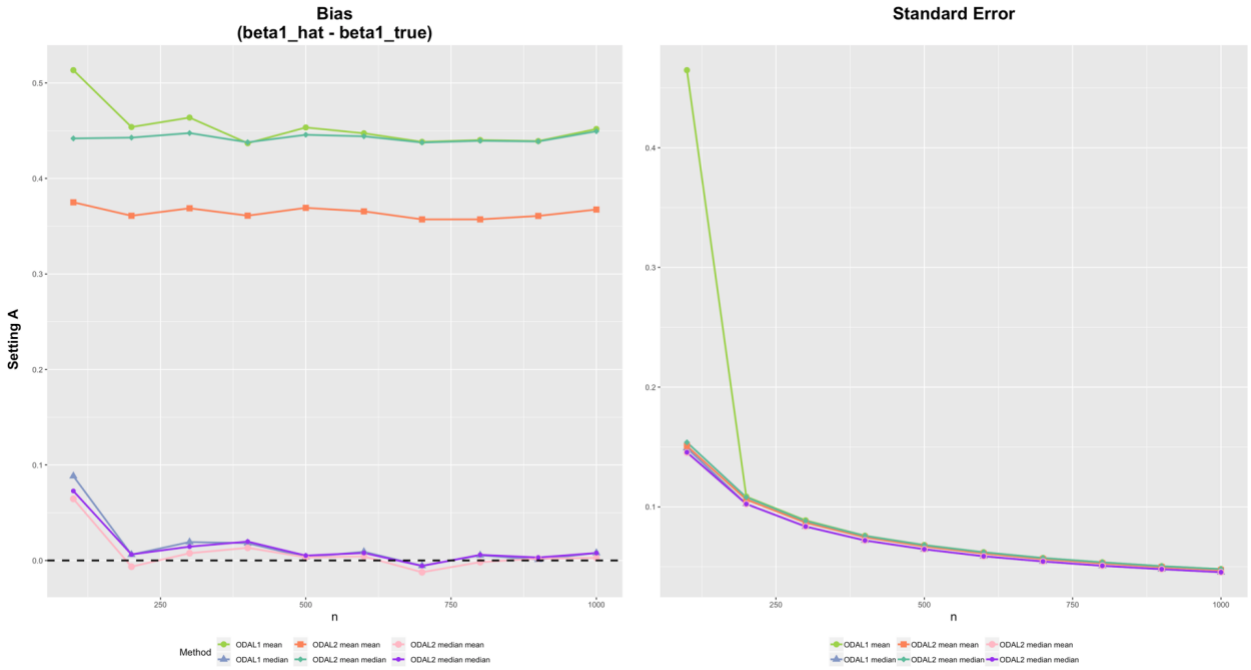
Scenario 1:

- Site #1 – 9 setting (including local site):
  - X1 = rbinom(N-nn,1,0.3)
  - Beta = (1, -1)
- Site #10 settings:
  - X1 = rbinom(nn,1,0.5)
  - Beta* = (1.5, -1)



Scenario 2:

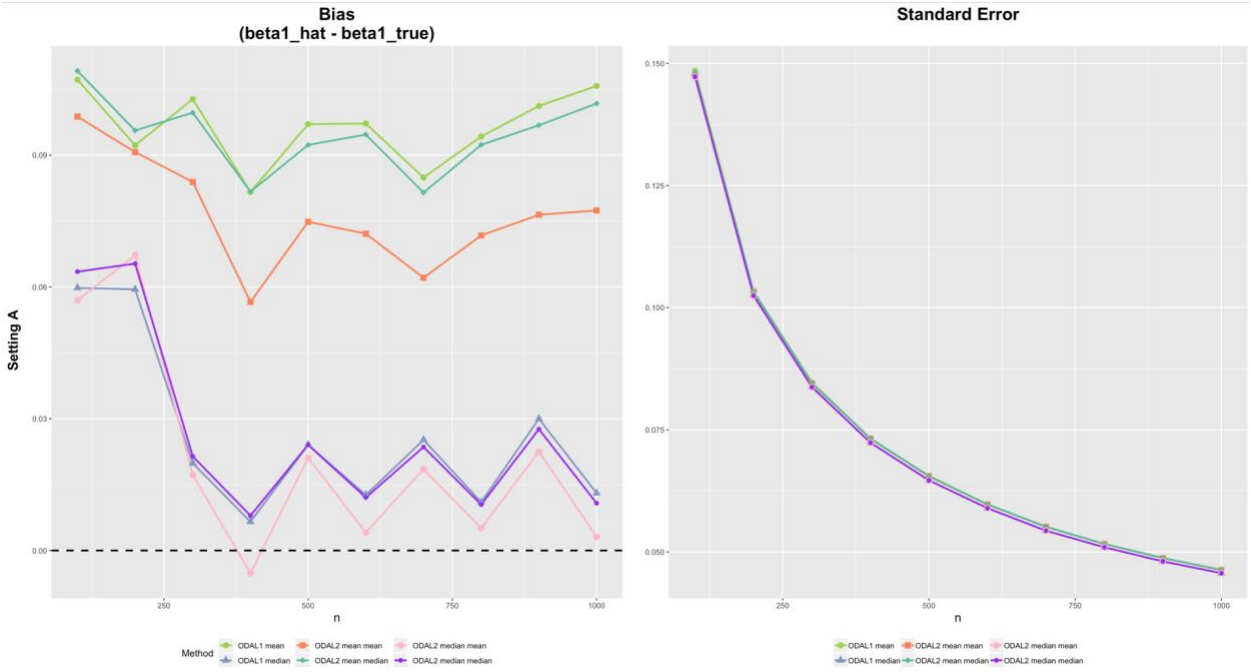
- Site #1 – 9 setting (including local site):
  - X1 = rbinom(N-nn,1,0.3)
  - Beta = (1, -1)
- Site #10 settings:
  - X1 = rbinom(nn,1,0.9)
  - Beta* = (3, -1)



2/10 HETERO & ONE variable (binary)

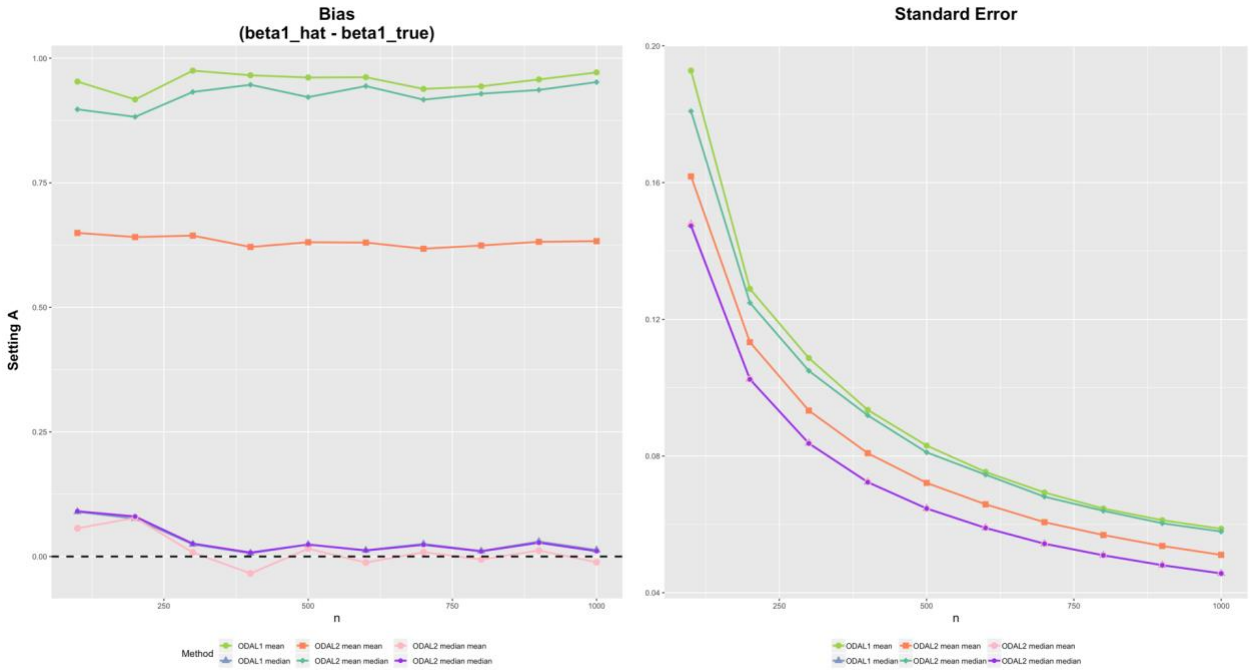
Scenario 1:

- Site #1 – 8 setting (including local site):
  - X1 = rbinom(N-2*nn,1,0.3)
  - Beta = (1, -1)
- Site #9,10 settings:
  - X1 = rbinom(2*nn,1,0.5)
  - Beta* = (1.5, -1)



Scenario 2:

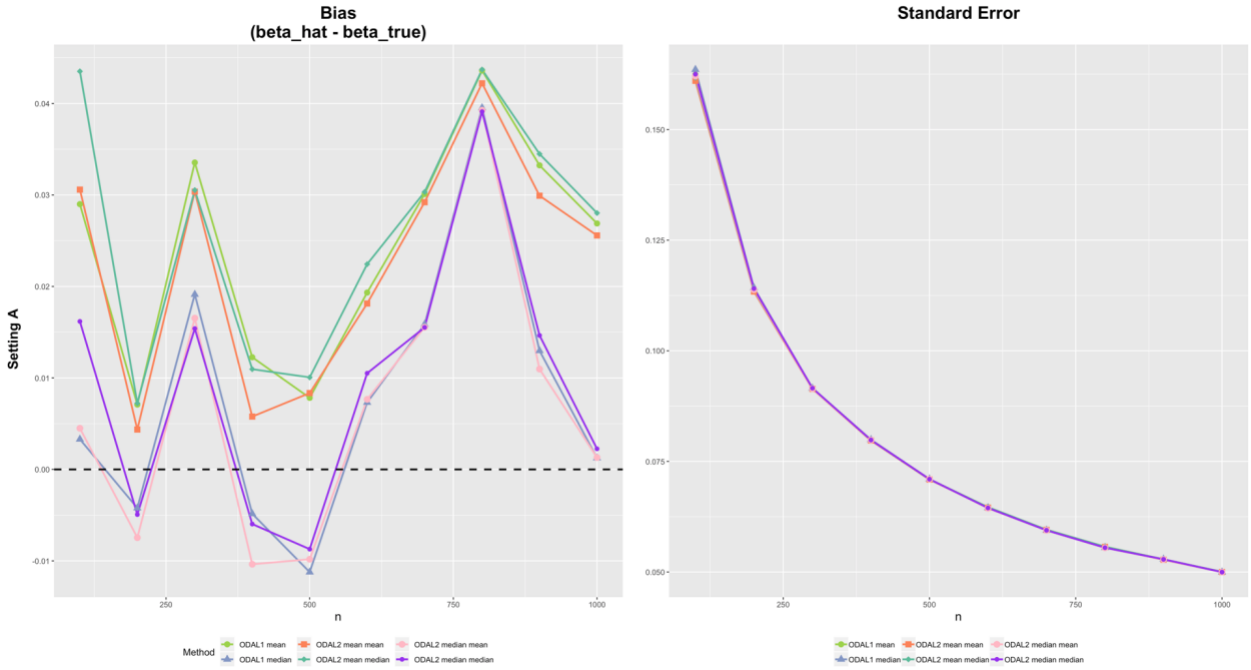
- Site #1 – 8 setting (including local site):
  - X1 = rbinom(N-2*nn,1,0.3)
  - Beta = (1, -1)
- Site #9,10 settings:
  - X1 = rbinom(2*nn,1,0.9)
  - Beta* = (3, -1)



1/10 HETERO & two variables

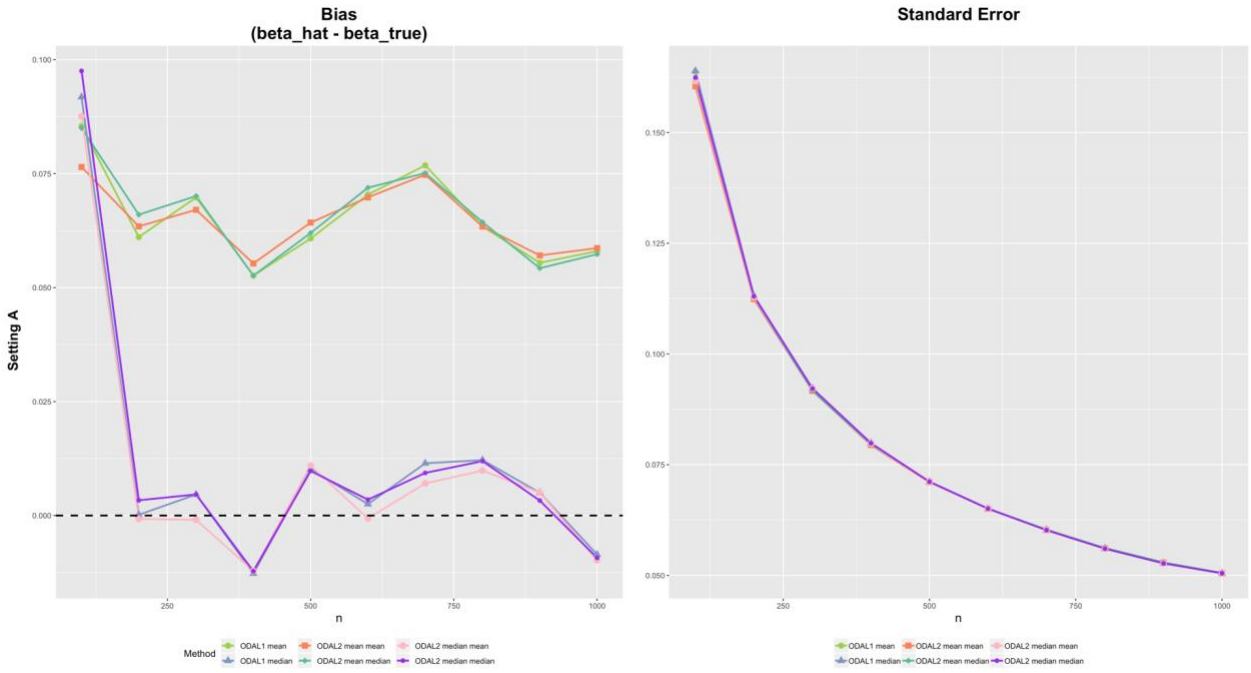
Scenario 1:

- Site #1 – 9 settings (including local site):
  - X1 = rnorm(N-nn)
  - **X2 = rbinom(N-nn,1,0.3)**
  - Beta = (1, 1, **-1**)
- Site #10 settings:
  - X1.hetero = rnorm(nn,1,1)
  - X2.hetero = rbinom(nn,1,0.5)
  - Beta* = (1.5, 0.8, **-1**)



Scenario 2:

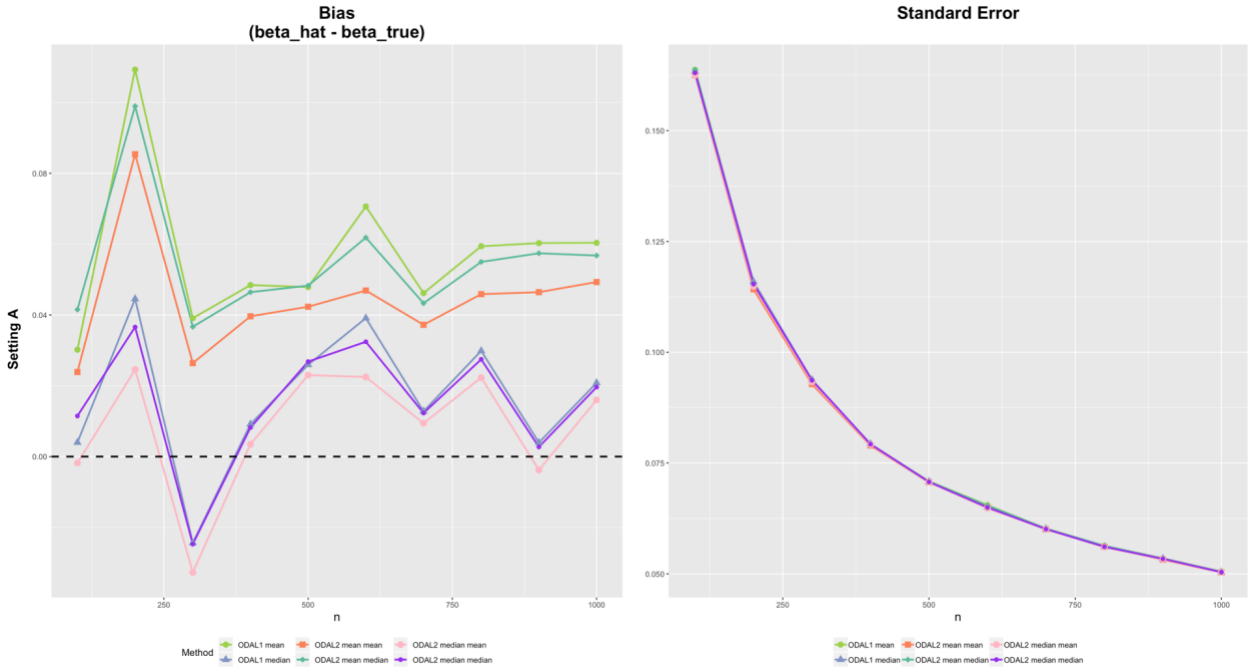
- Site #1 – 9 settings (including local site):
  - X1 = rnorm(N-nn)
  - **X2 = rbinom(N-nn,1,0.3)**
  - Beta = (1, 1, **-1**)
- Site #10 settings:
  - X1.hetero = rnorm(nn,5,5)
  - X2.hetero = rbinom(nn,1,0.9)
  - Beta* = (3, 2, **-1**)



2/10 HETERO & two variables

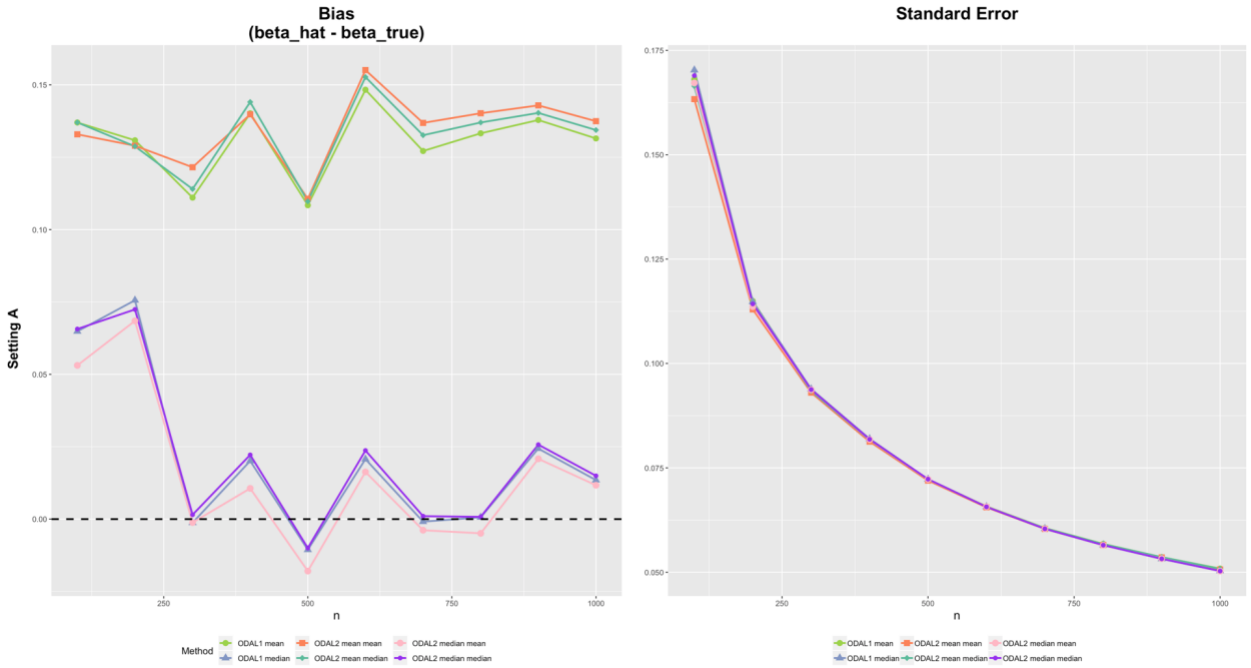
Scenario 1:

- Site #1 – 8 settings (including local site):
  - X1 = rnorm(N-nn)
  - **X2 = rbinom(N-nn,1,0.3)**
  - Beta = (1, 1, **-1**)
- Site #9, 10 settings:
  - X1.hetero = rnorm(nn,1,1)
  - X2.hetero = rbinom(nn,1,0.5)
  - Beta* = (1.5, 0.8, **-1**)



Scenario 2:

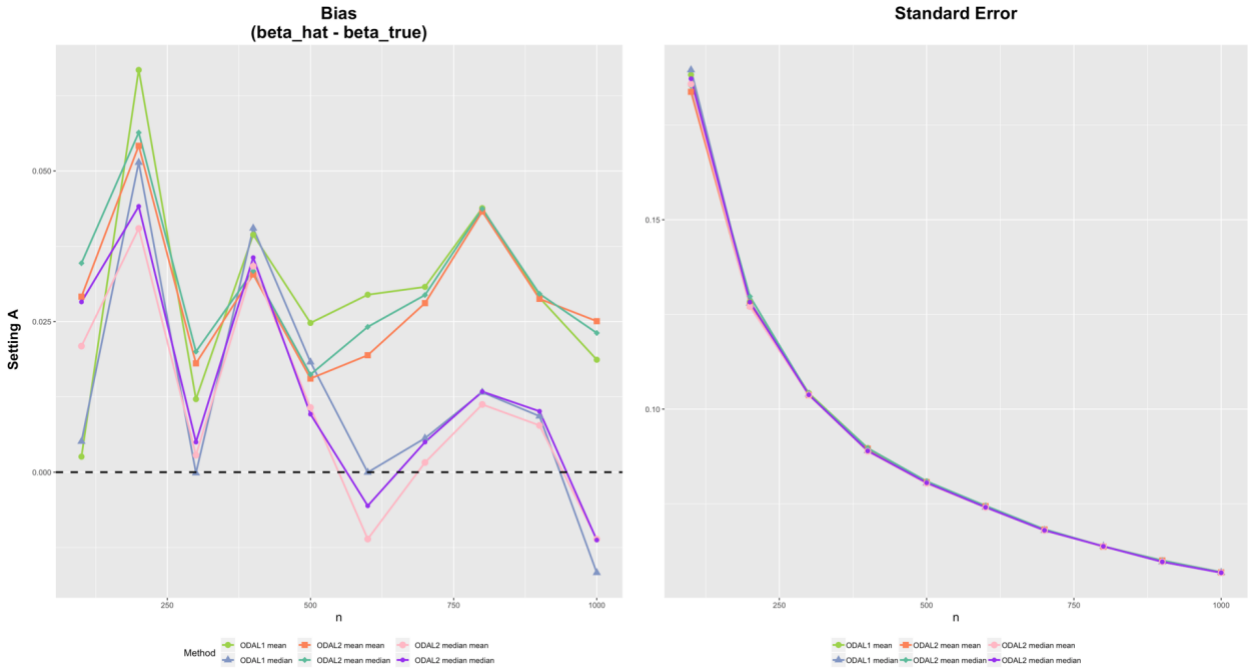
- Site #1 – 8 settings (including local site):
  - X1 = rnorm(N-nn)
  - **X2 = rbinom(N-nn,1,0.3)**
  - Beta = (1, 1, **-1**)
- Site #9, 10 settings:
  - X1.hetero = rnorm(nn,5,5)
  - X2.hetero = rbinom(nn,1,0.9)
  - Beta* = (3, 2, **-1**)



1/10 HETERO & four variables

Scenario 1:

- Site #1 – 9 settings (including local site):
  - X1 = rnorm(N-nn)
  - **X2 = rbinom(N-nn,1,0.3)**
  - X3 = runif(N-nn,X2-1,1)
  - X4 = rbinom(N-nn,1,0.5)
  - Beta = c(1, 1, -1, 1, -1)
- Site #10 settings:
  - X1.hetero = rnorm(nn,5,5)
  - X2.hetero = rbinom(nn,1,0.9)
  - X3.hetero = runif(nn,X2.hetero-2,2)
  - X4.hetero = rbinom(nn,1,0.9)
  - Beta* = c(3, 2, -1, 5, -3)



2/10 HETERO & four variables

Scenario 1:

- Site #1 – 8 settings (including local site):
  - X1 = rnorm(N-nn)
  - **X2 = rbinom(N-nn,1,0.3)**
  - X3 = runif(N-nn,X2-1,1)
  - X4 = rbinom(N-nn,1,0.5)
  - Beta = c(1, 1, -1, 1, -1)
- Site #9,10 settings:
  - X1.hetero = rnorm(nn,5,5)
  - X2.hetero = rbinom(nn,1,0.9)
  - X3.hetero = runif(nn,X2.hetero-2,2)
  - X4.hetero = rbinom(nn,1,0.9)
  - Beta* = c(3, 2, -1, 5, -3)