# ggPMX standing report

# /home/matt/src/nlmixr.examples/vignettes $17\ October,\ 2019$

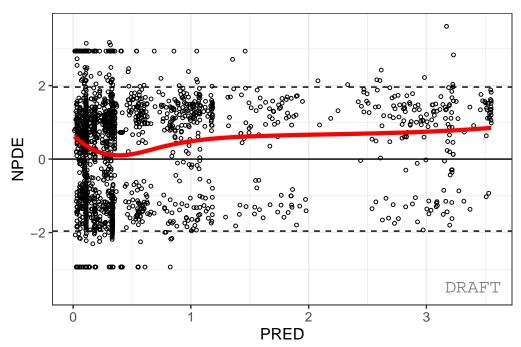
#### Contents

Key model diagnostics	2
NPDE vs PRED	2
NPDE vs TIME	
IWRES vs IPRED	
IWRES vs TIME	
Distribution of random effects	
VPC	
Supplementary diagnostics	8
Distribution of IWRES	8
EBE-based diagnostics	
Observations vs predictions	
Residual plots	
ndividual plots (selection)	16
tratified key diagnostics	17
NPDE vs TIME by categorical covariates	17
IWRES vs TIME by categorical covariates	
VPC by categorical covariates	

# Key model diagnostics

# NPDE vs PRED

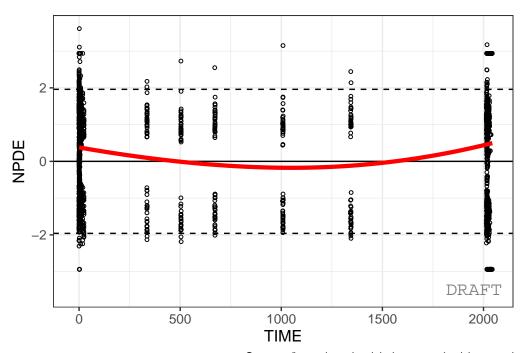
#### NPDE vs PRED



Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/npde\_pred-1

#### NPDE vs TIME

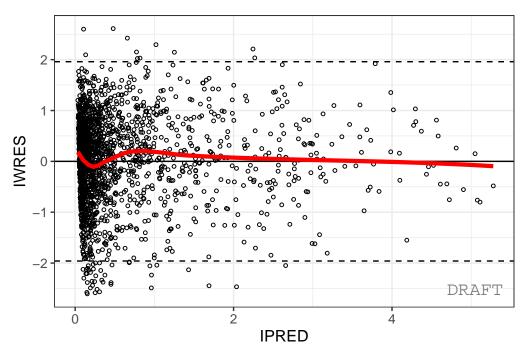
#### NPDE vs TIME



Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/npde\_time-2

#### IWRES vs IPRED

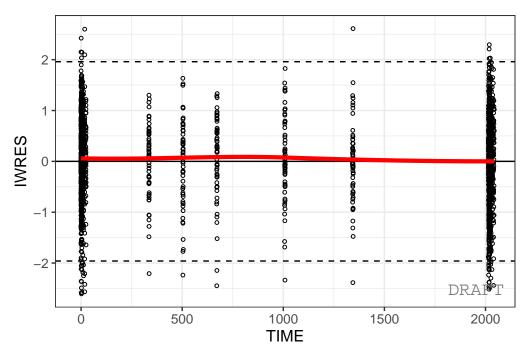
#### **IWRES vs IPRED**



Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/iwres\_ipred-3

#### IWRES vs TIME

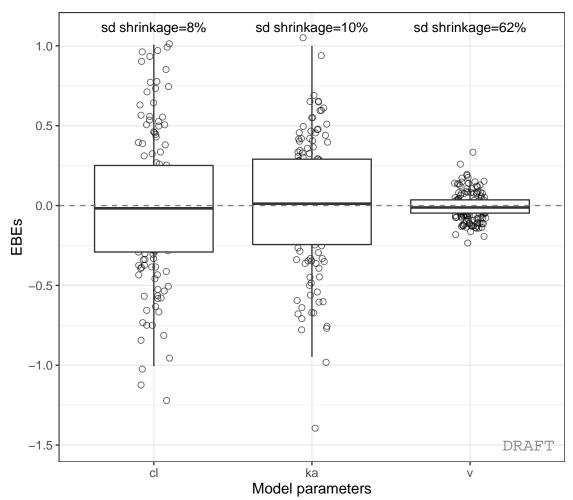
#### **IWRES vs TIME**



Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/iwres\_time-4

#### Distribution of random effects

#### **EBE** distribution



Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/eta\_box-5

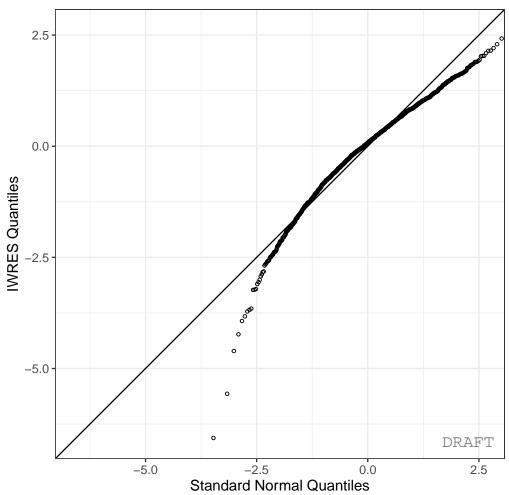
# Percentile VPC (with observations) 7.5 5.0 0.0 DRAFT DRAFT TIME

Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/pmx\_vpc-6

# Supplementary diagnostics

#### Distribution of IWRES

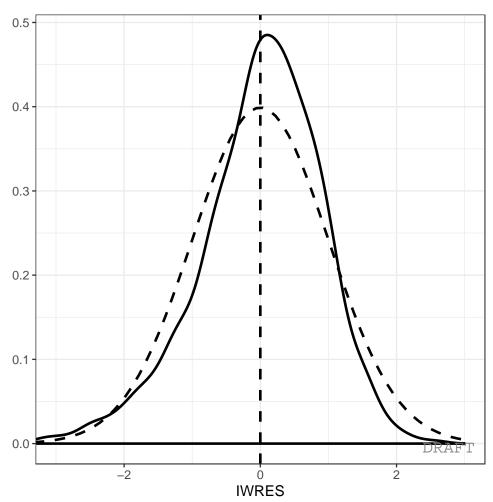
QQ plot of IWRES



Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/iwres\_qq-7

#### Distribution of IWRES

#### Density plot of IWRES

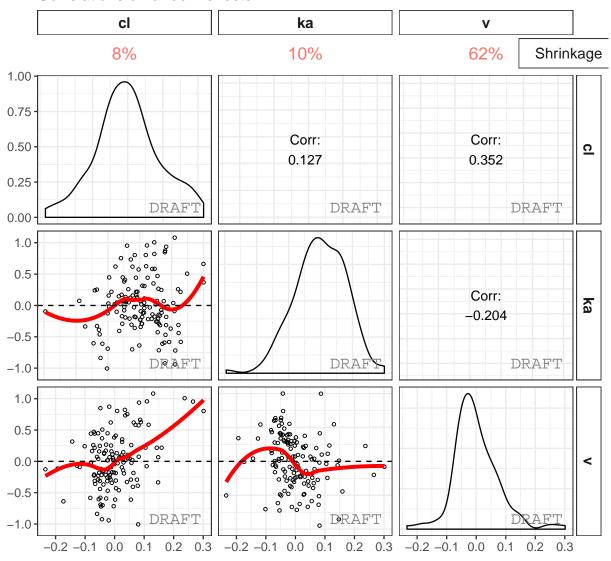


Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/iwres\_dens-8

#### EBE-based diagnostics

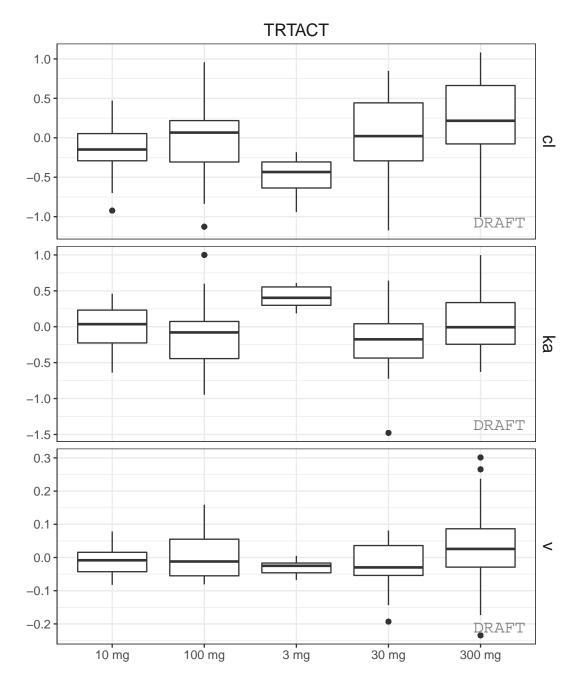
#### Distribution and correlation of EBEs

#### Correlations of random effects



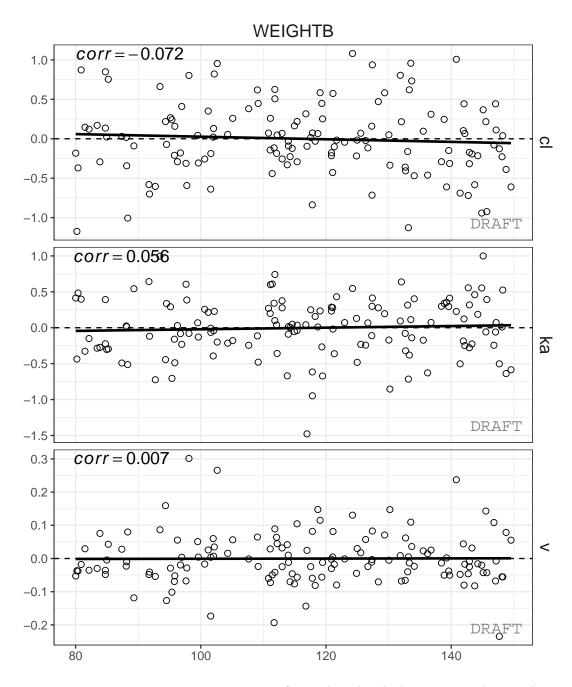
Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/eta\_matrix-9

#### EBE vs. covariates



Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/eta\_cats-10

#### EBE vs. covariates

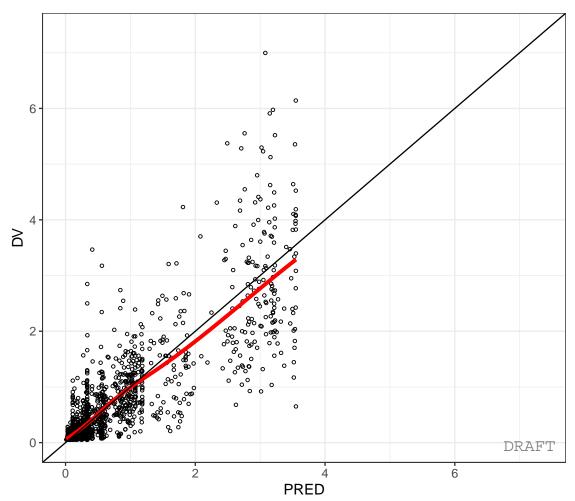


Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/eta\_conts-11

#### Observations vs predictions

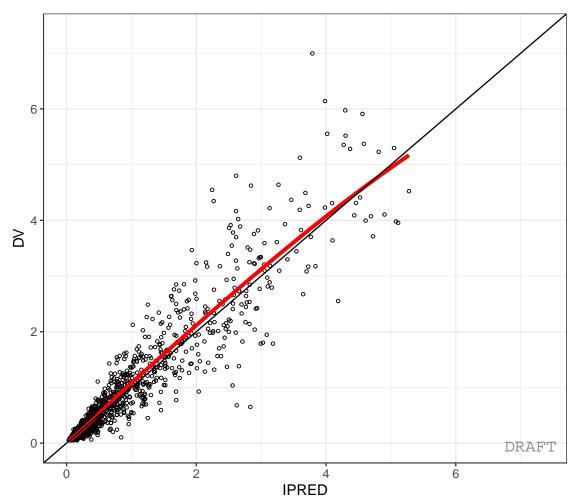
#### DV vs PRED

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Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/dv\_pred-12

#### DV vs IPRED

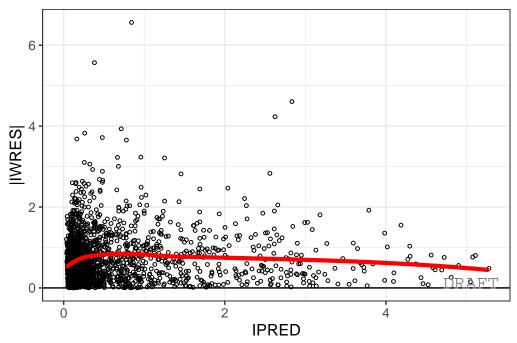


Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/dv\_ipred-13

#### Residual plots

#### |IWRES| vs IPRED

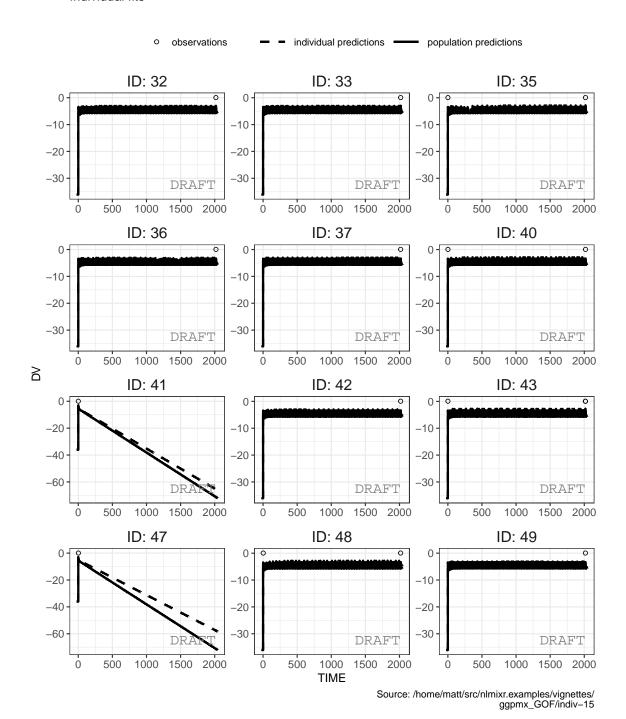
# |IWRES| vs IPRED



Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/abs\_iwres\_ipred-14

# Individual plots (selection)

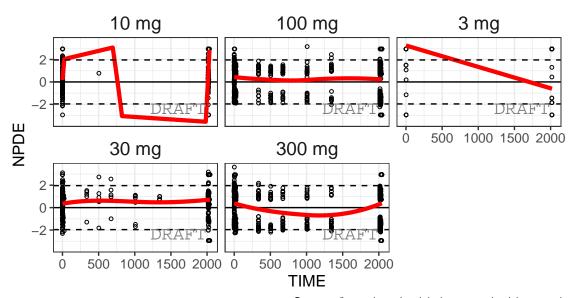
#### Individual fits



# Stratified key diagnostics

#### NPDE vs TIME by categorical covariates

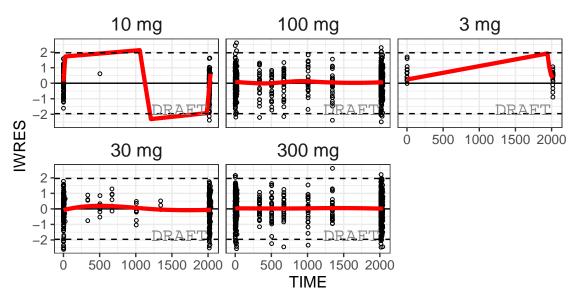
#### NPDE vs TIME by TRTACT



Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/npde\_time-16

#### IWRES vs TIME by categorical covariates

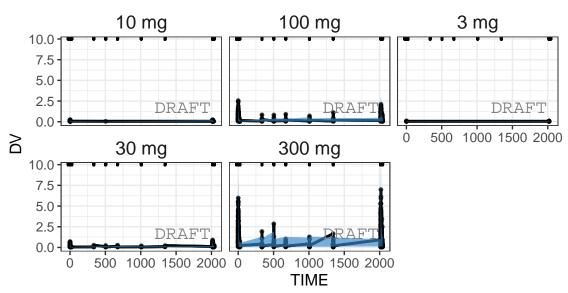
# IWRES vs TIME by TRTACT



Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/iwres\_time-17

#### VPC by categorical covariates

# Percentile VPC by TRTACT (with observations)



Source: /home/matt/src/nlmixr.examples/vignettes/ ggpmx\_GOF/pmx\_vpc-18