

Fitting

Read the data

```
julia> data = read_pumas(simdf,cvs=[:isPM, :wt])
Population
  Subjects: 10
  Covariates: isPM, wt
  Observables: dv
```

Use this data to estimate the parameters of our model.

```
julia> res = fit(model,data,param,Pumas.FOCEI())
FittedPumasModel

Successful minimization:           true

Likelihood approximation:          Pumas.FOCEI
Objective function value:          8084.54
Total number of observation records: 1210
Number of active observation records: 1210
Number of subjects:                10

-----
              Estimate
-----
tvcl      4.8809
tvv       89.739
pmoncl   -0.73558
 $\Omega_{1,1}$     0.10822
 $\Omega_{2,2}$     0.051508
 $\sigma_{prop}$   0.042149
-----
```

```
julia> infer(res)
Calculating: variance-covariance matrix
. Done.
FittedPumasModelInference
```

```
Successful minimization: true
```

```
Likelihood approximation: Pumas.FOCEI
Objective function value: 8084.54
Total number of observation records: 1210
Number of active observation records: 1210
Number of subjects: 10
```

	Estimate	RSE	95.0% C.I.
tvcl	4.8809	12.932	[3.6438 ; 6.1181]
tvv	89.739	7.3011	[76.898 ; 102.58]
pmoncl	-0.73558	-7.9587	[-0.85032 ; -0.62084]
$\Omega_{1,1}$	0.10822	26.546	[0.051913 ; 0.16452]
$\Omega_{2,2}$	0.051508	41.275	[0.0098391 ; 0.093176]
σ_{prop}	0.042149	3.3957	[0.039344 ; 0.044954]