



# infer

```
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 ]
$\sigma_{prop}$	0.042149	3.3957	[ 0.039344 ; 0.044954 ]



Predictions: The difference between the observations and the model expectation

- Population - EPRED, PRED, CPRED, CPREDI
- Individual - IPRED, CIPRED, CIPREDI, EIPRED

Residuals:

- Population - NPDE, WRES, CWRES, CWRESI
- Individual - IWRES, ICWRES, ICWRESI, EIWRES

$\eta$ shrinkage,  $\epsilon$ shrinkage, AIC, BIC

```
julia> resout = DataFrame(inspect(res))
```

```
julia> first(resout, 6)
```

6×13 DataFrame

Row	id	time	isPM	wt	pred	ipred	pred_approx	wres	iwres	wres_approx	ebe_1	ebe_2	ebes_approx
	String	Float64	Int64	Int64	Float64	Float64	Pumas.FOCEI	Float64	Float64	Pumas.FOCEI	Float64	Float64	Pumas.FOCEI
1	1	0.0	0	68	1326.95	1290.5	FOCEI()	0.0141867	0.164838	FOCEI()	-0.273173	0.0282462	FOCEI()
2	1	1.0	0	68	1255.42	1236.44	FOCEI()	0.247655	0.414528	FOCEI()	-0.273173	0.0282462	FOCEI()
3	1	2.0	0	68	1187.56	1184.65	FOCEI()	-1.44113	-1.53356	FOCEI()	-0.273173	0.0282462	FOCEI()
4	1	3.0	0	68	1123.17	1135.03	FOCEI()	-0.66784	-1.10145	FOCEI()	-0.273173	0.0282462	FOCEI()
5	1	4.0	0	68	1062.1	1087.49	FOCEI()	-0.67988	-1.29264	FOCEI()	-0.273173	0.0282462	FOCEI()
6	1	5.0	0	68	1004.17	1041.94	FOCEI()	1.14917	0.521982	FOCEI()	-0.273173	0.0282462	FOCEI()