

# Cote d'Ivoire

```
## [1] "Census Females"

## # A tibble: 86 x 3
##   age `1988` `2014`
##   <dbl>   <dbl>   <dbl>
## 1     0 203715. 386588.
## 2     1 216006. 356228.
## 3     2 211959. 355154.
## 4     3 206630. 352861.
## 5     4 197217. 344867.
## 6     5 187519. 336808.
## 7     6 179099. 325250.
## 8     7 169648. 311682.
## 9     8 158120. 290503.
## 10    9 144149. 273050.
## # ... with 76 more rows

## [1] "Census Females 5-year"

## # A tibble: 18 x 2
##   age `1975`
##   <dbl>   <dbl>
## 1     0 621138.
## 2     5 492509.
## 3    10 368542.
## 4    15 316352.
## 5    20 304252.
## 6    25 276639.
## 7    30 227829.
## 8    35 177208.
## 9    40 135509.
## 10   45 101617.
## 11   50  74754.
## 12   55  53300.
## 13   60  38404.
## 14   65  26807.
## 15   70  17664.
## 16   75  10813.
## 17   80   7739.
## 18   85   9920.

## [1] "Census Males"

## # A tibble: 86 x 3
##   age `1988` `2014`
##   <dbl>   <dbl>   <dbl>
## 1     0 208188. 405054.
## 2     1 223072. 381633.
## 3     2 218092. 381733.
## 4     3 212491. 376098.
## 5     4 203051. 367851.
## 6     5 194179. 360663.
```

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## 7      6 186365. 347207.
## 8      7 176866. 331785.
## 9      8 164900. 309458.
## 10     9 150569. 294758.
## # ... with 76 more rows
```

```
## [1] "Census Males 5-year"
```

```
## # A tibble: 18 x 2
```

```
##   age `1975`
##   <dbl> <dbl>
```

```
## 1      0 636967.
## 2      5 523312.
## 3     10 394231.
## 4     15 319030.
## 5     20 302633.
## 6     25 280540.
## 7     30 237963.
## 8     35 199308.
## 9     40 166025.
## 10    45 132220.
## 11    50 100558.
## 12    55  73855.
## 13    60  51653.
## 14    65  33245.
## 15    70  20052.
## 16    75  10866.
## 17    80   5920.
## 18    85   8558.
```

### *Thiele log-Normal Hump Spline*

```
## [1] "relative convergence (4)"
```

##	log_tau2_logpop_f	log_tau2_logpop_f	log_tau2_logpop_m	log_tau2_
##	5.181643363	4.316608760	5.558105350	4.6
##	log_tau2_gx_m	log_lambda_gx_age_f	log_lambda_gx_age_m	log_lambda_g
##	3.602192403	6.232948522	7.003060112	7.7
##	log_lambda_gx_agemtime_m	log_lambda_tp	log_lambda_tp_0_inflated_sd	log_disp
##	6.907774032	1.917499270	-2.145298454	0.6
##	log_marginal_prec_psi_f	log_marginal_prec_A_f	log_marginal_prec_B_f	log_marginal_pr
##	6.806570250	6.796827027	6.681076603	6.8
##	log_marginal_prec_B_m	log_lambda_phi_f	log_lambda_psi_f	log_lambda_
##	3.512281093	4.308079821	4.307245699	2.4
##	log_lambda_A_f	log_lambda_B_f	log_lambda_phi_m	log_lamb
##	4.306197415	4.290593135	4.308667182	4.3
##	log_lambda_epsilon_m	log_lambda_A_m	log_lambda_B_m	logit_lambda_slo
##	4.377809802	4.308548956	4.614157659	0.9
##	logit_lambda_slope_rho_m	logit_delta_slope_rho_m	logit_epsilon_slope_rho_m	
##	0.572819424	-0.006428086	-1.465897108	

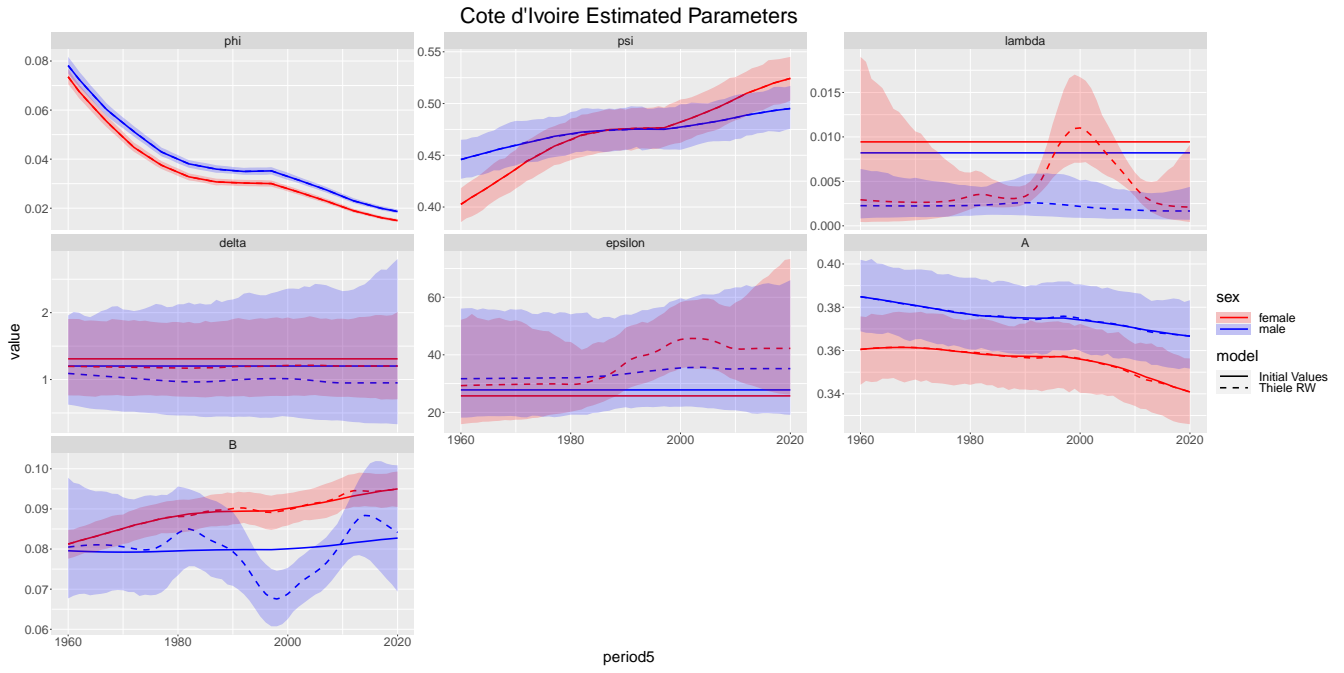


Figure 1: Estimated parameters

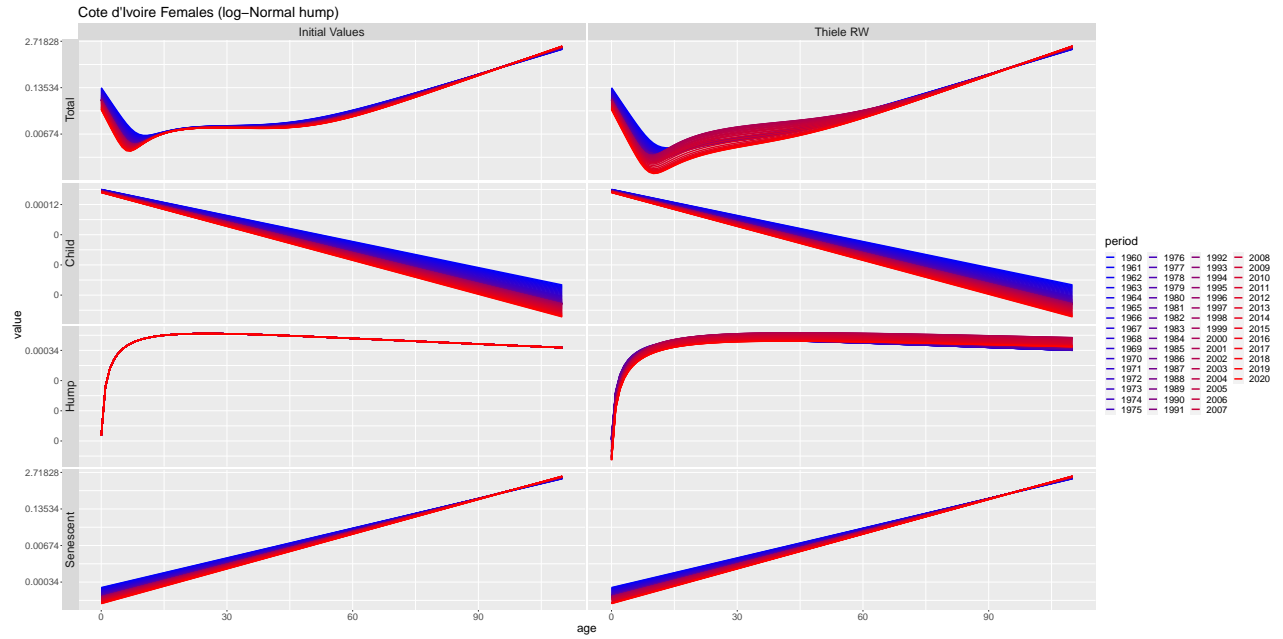


Figure 2: Thiele Decomposed

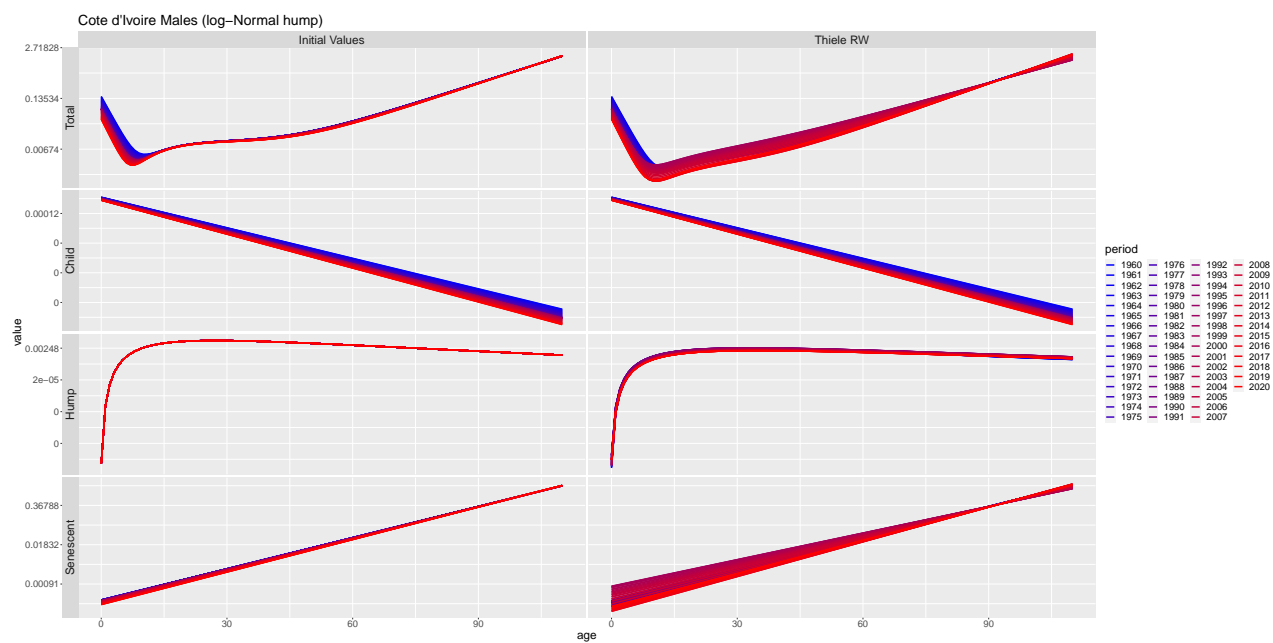


Figure 3: Thiele Decomposed

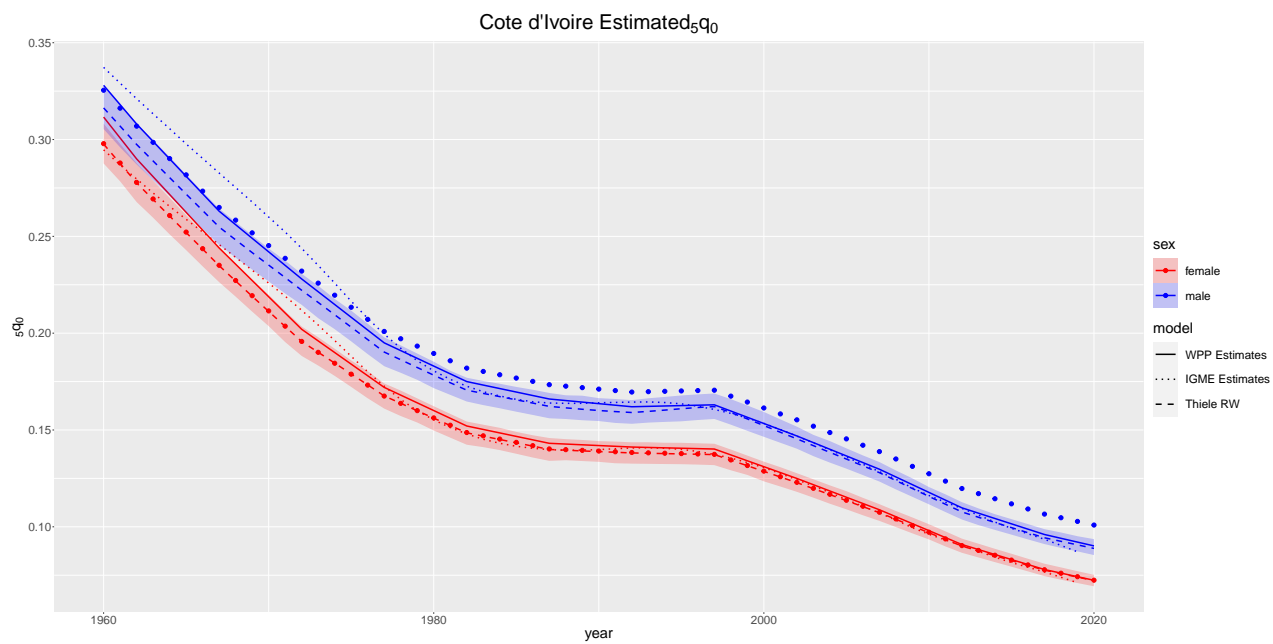


Figure 4: Estimated  $5q_0$

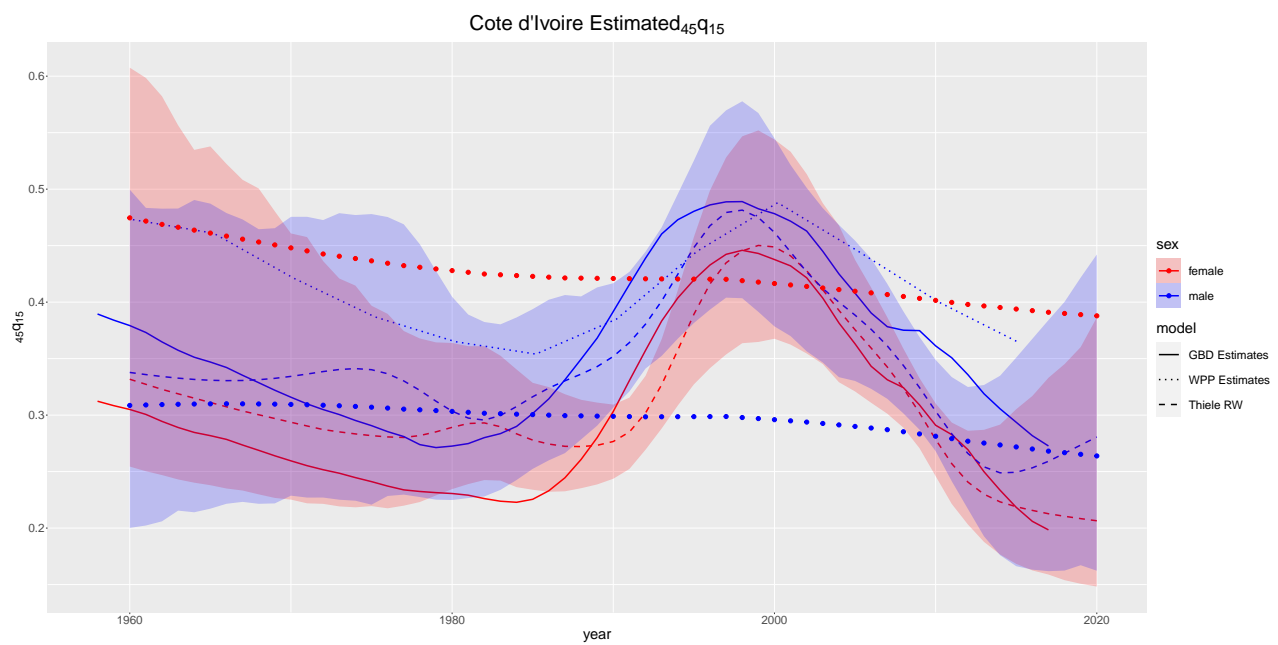


Figure 5: Estimated  $_{45}q_{15}$

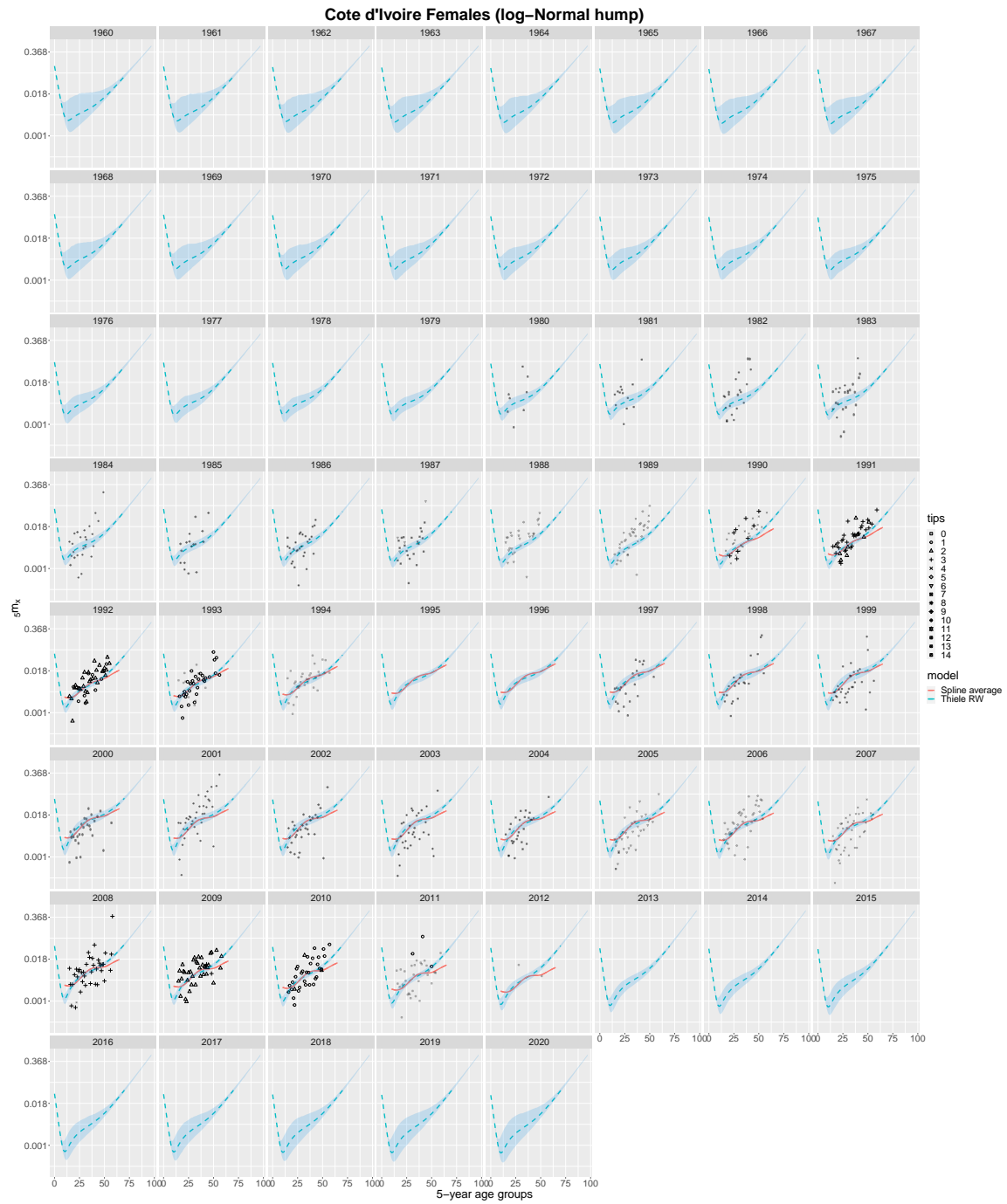


Figure 6: Mortality Schedules

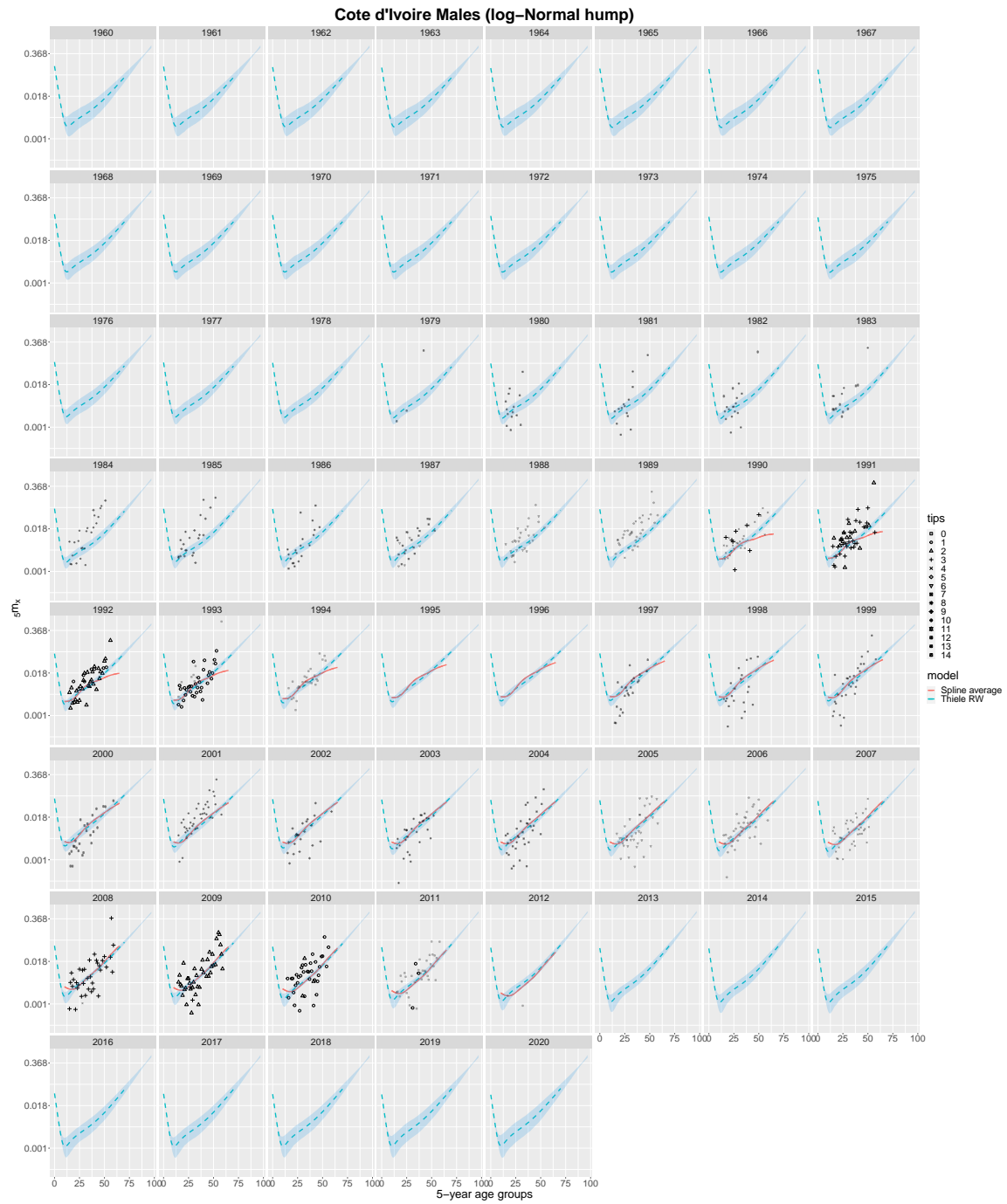


Figure 7: Mortality Schedules

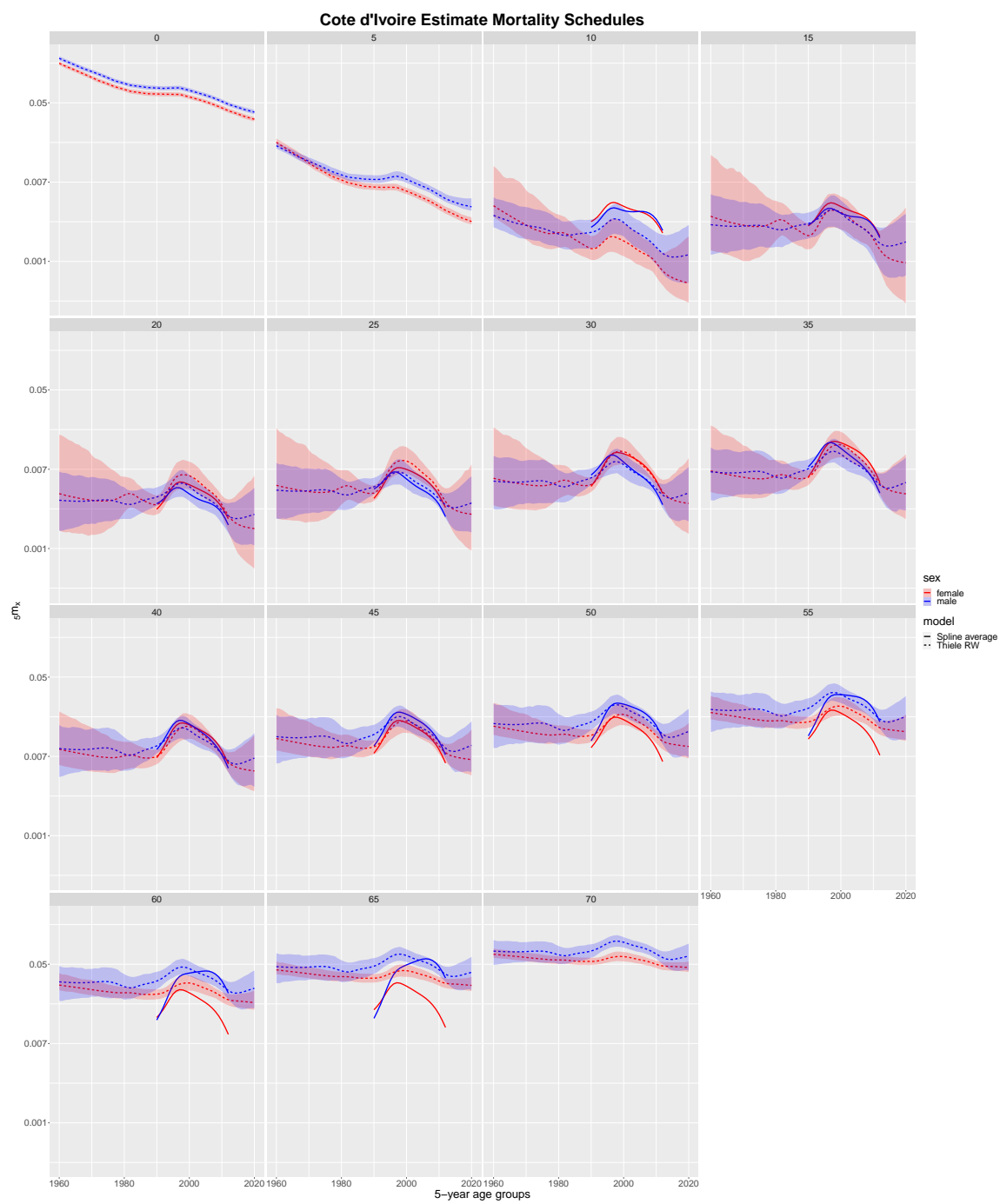


Figure 8: Mortality Schedules



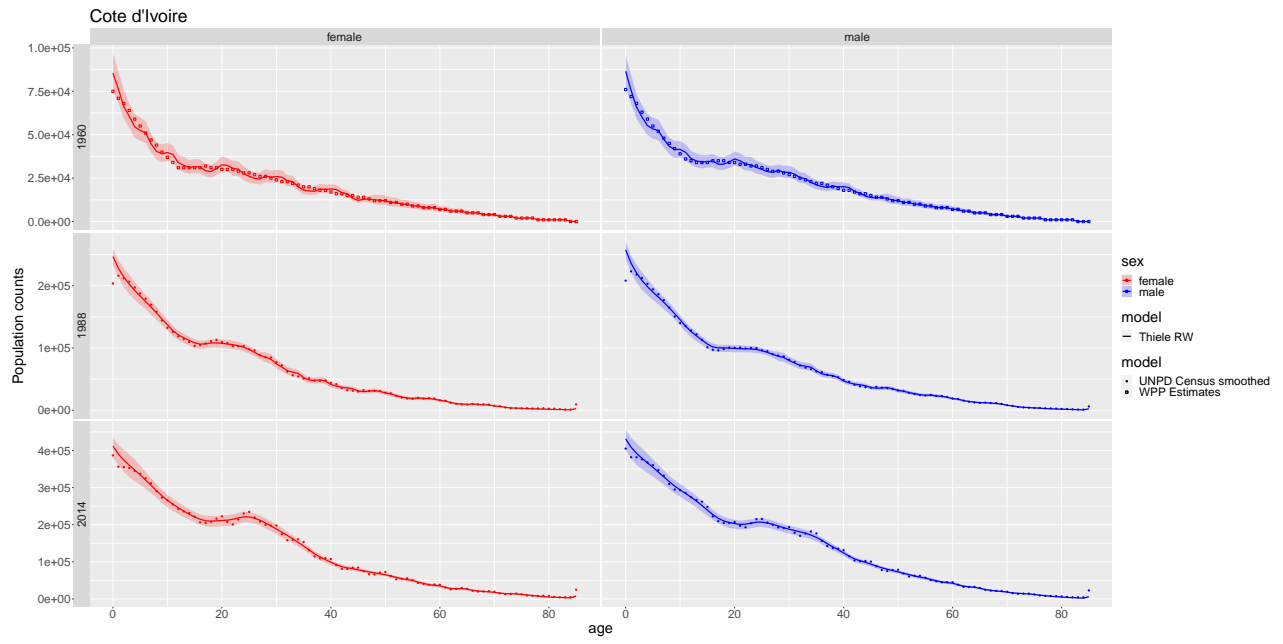


Figure 9: Population

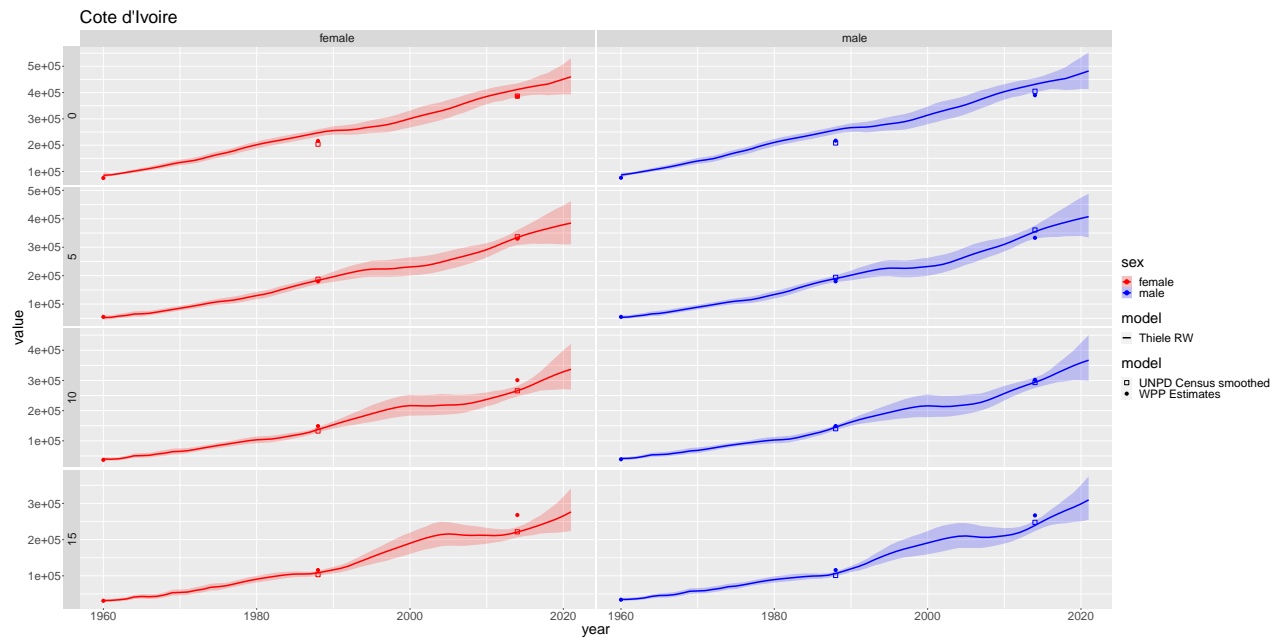


Figure 10: Population

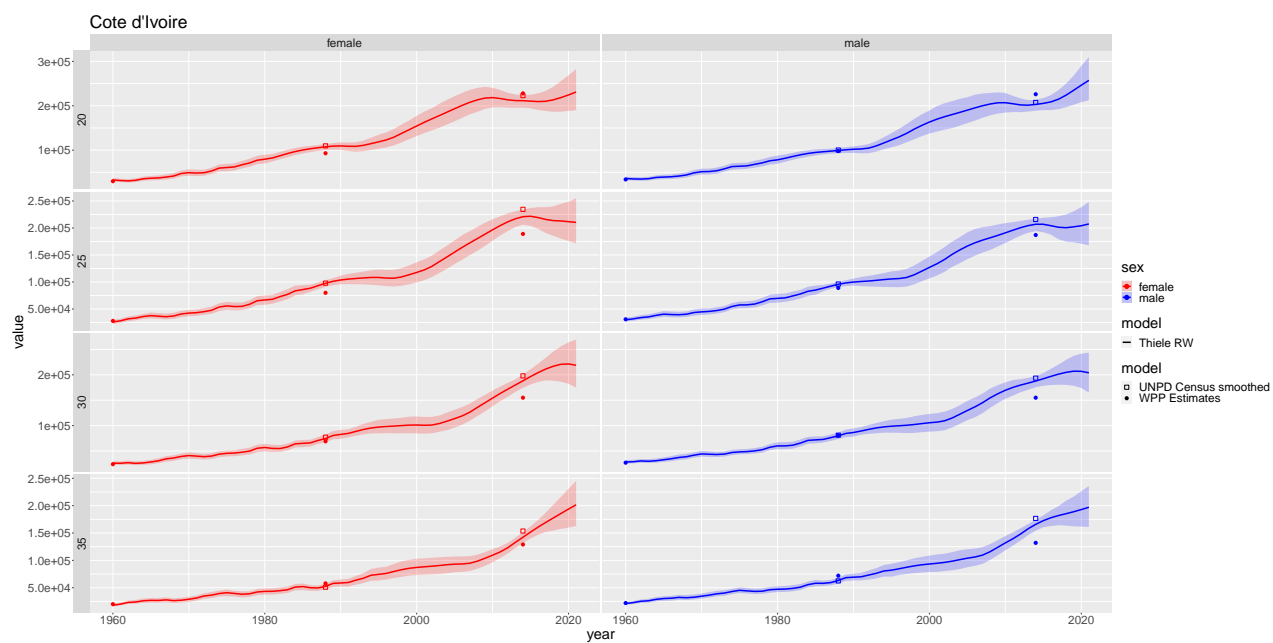


Figure 11: Population

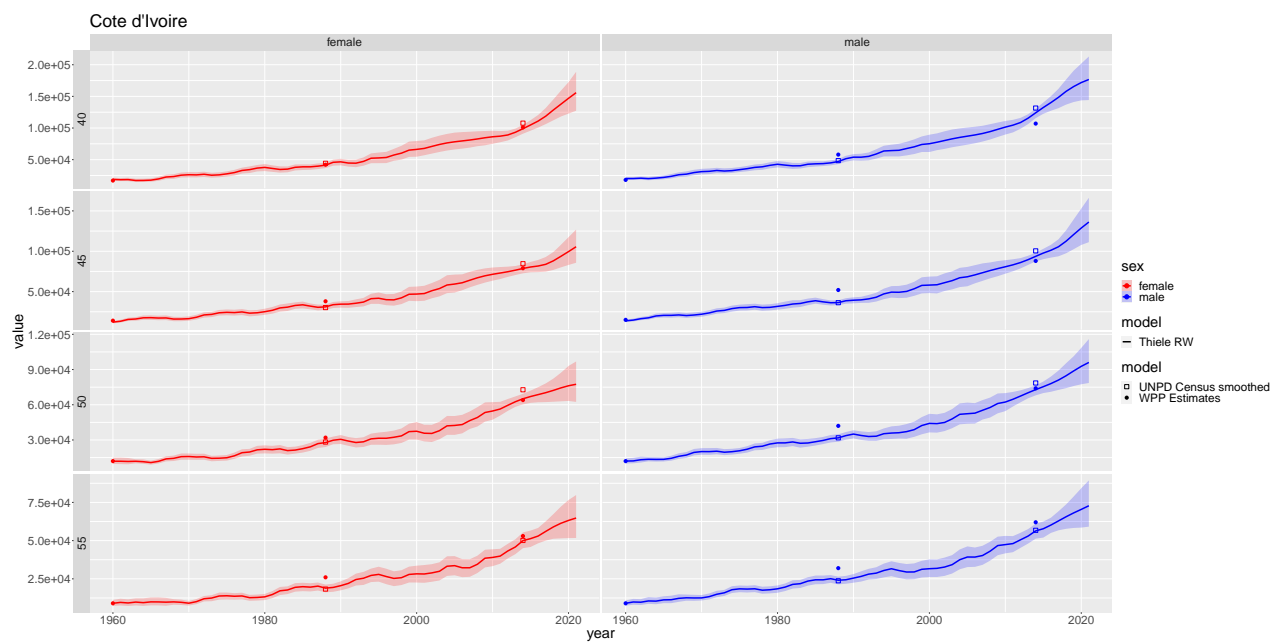


Figure 12: Population

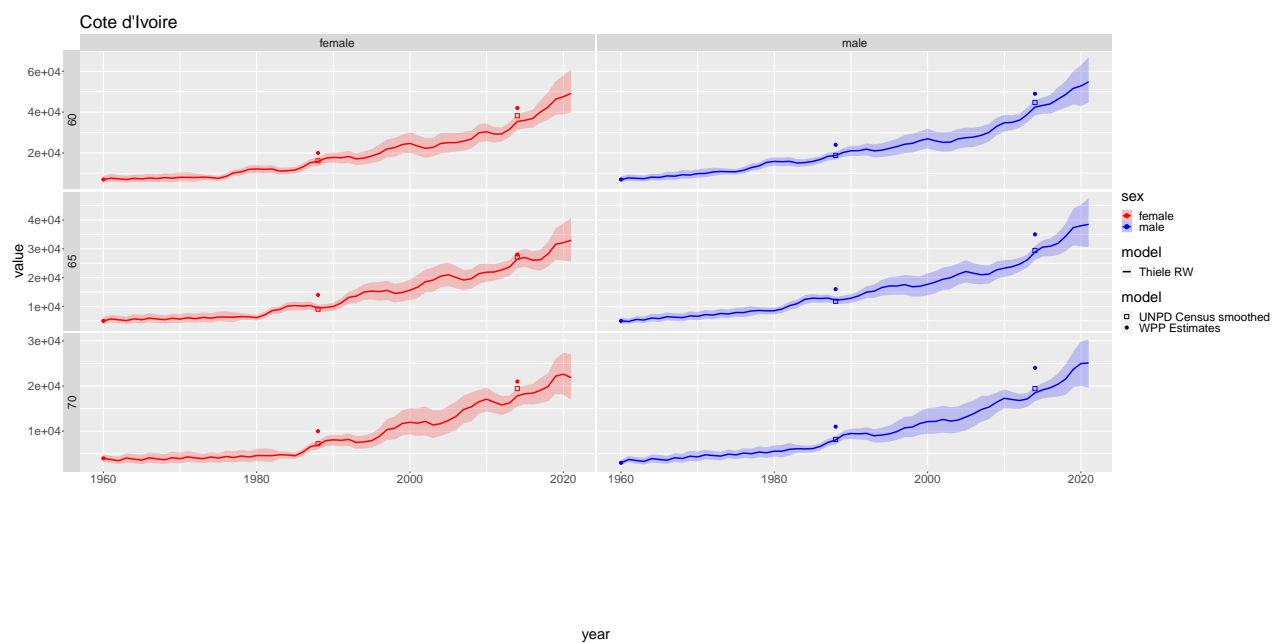


Figure 13: Population

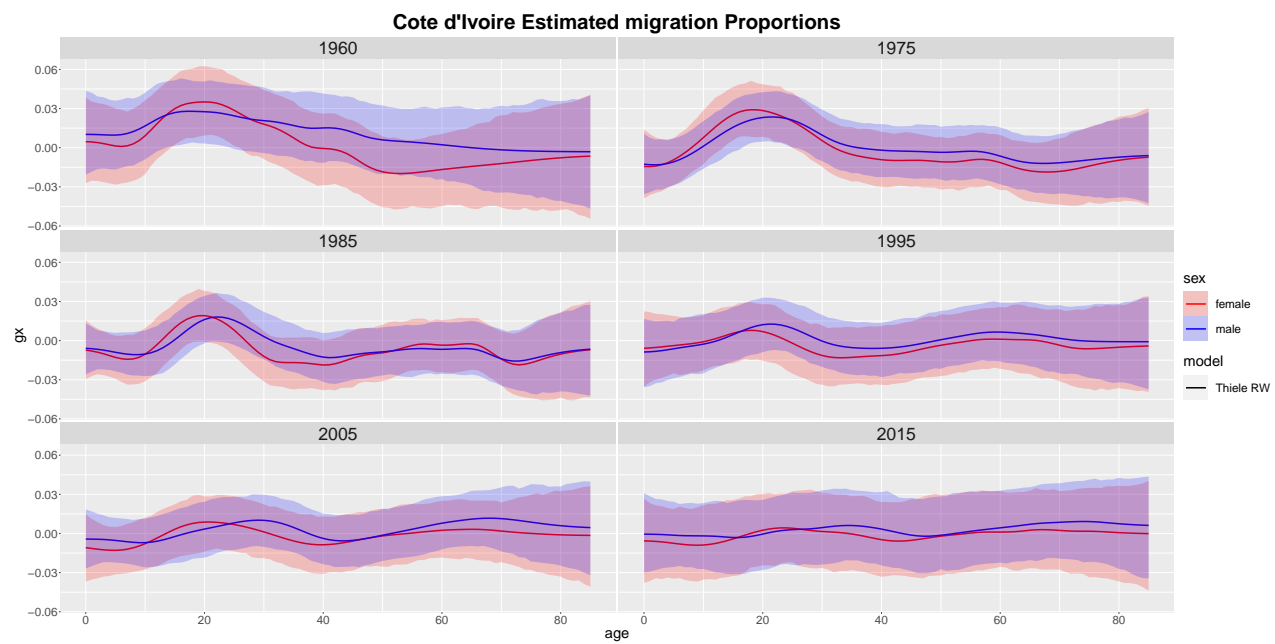


Figure 14: Migration

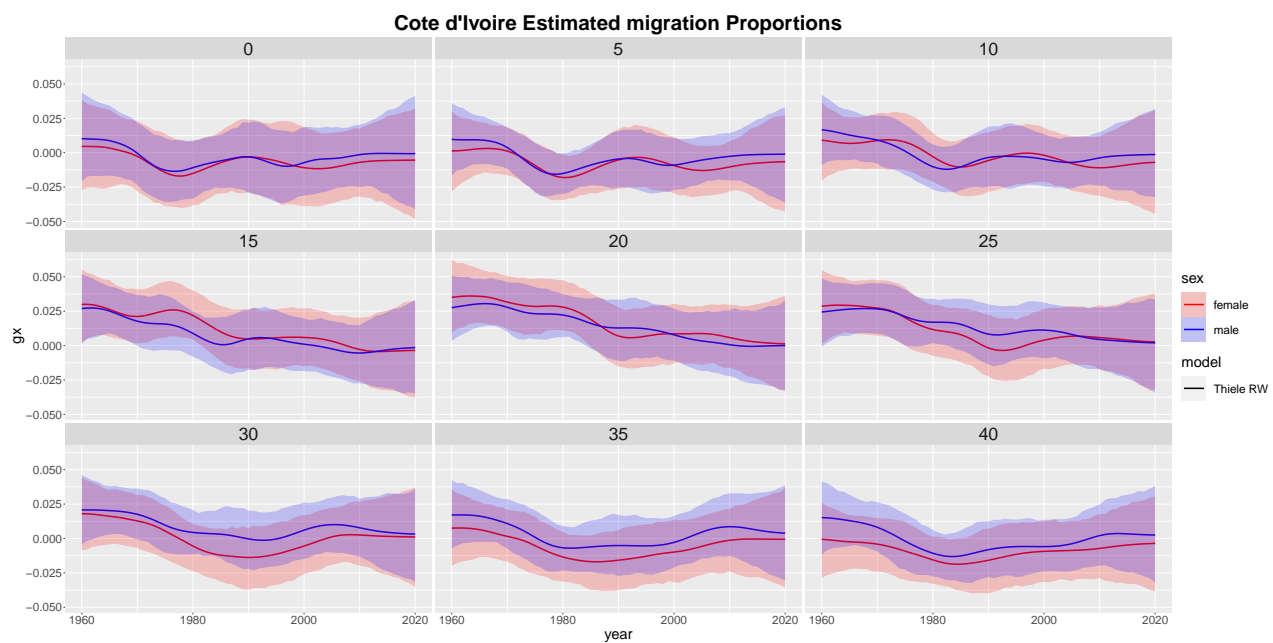


Figure 15: Migration

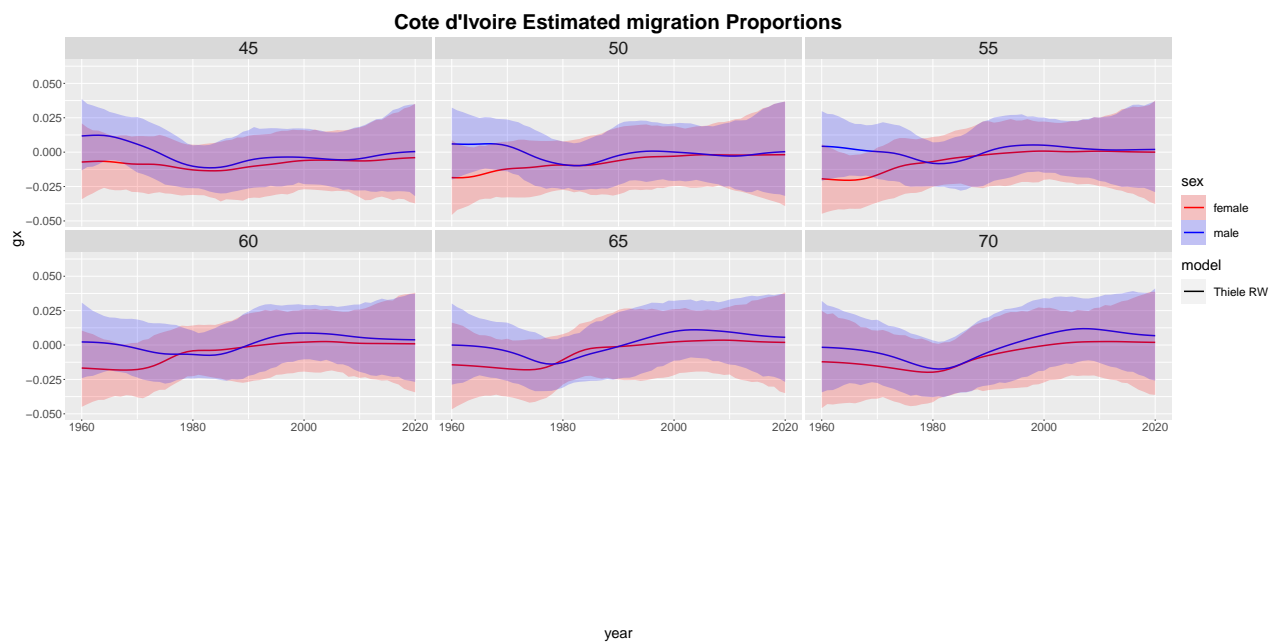


Figure 16: Migration

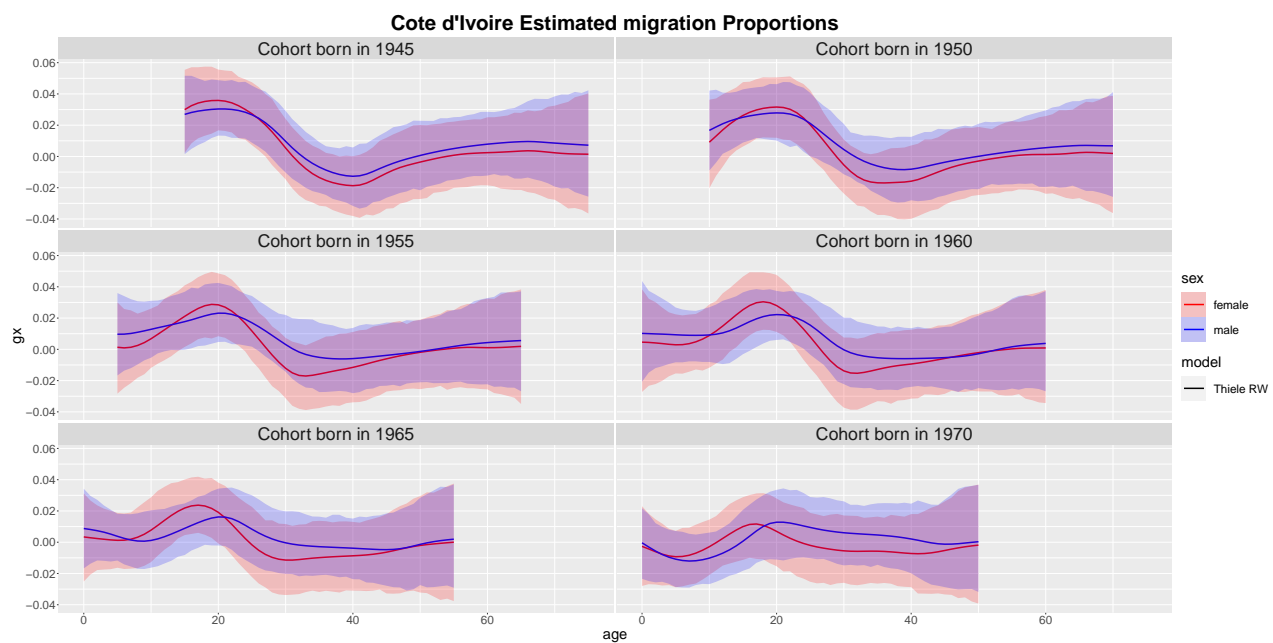


Figure 17: Migration

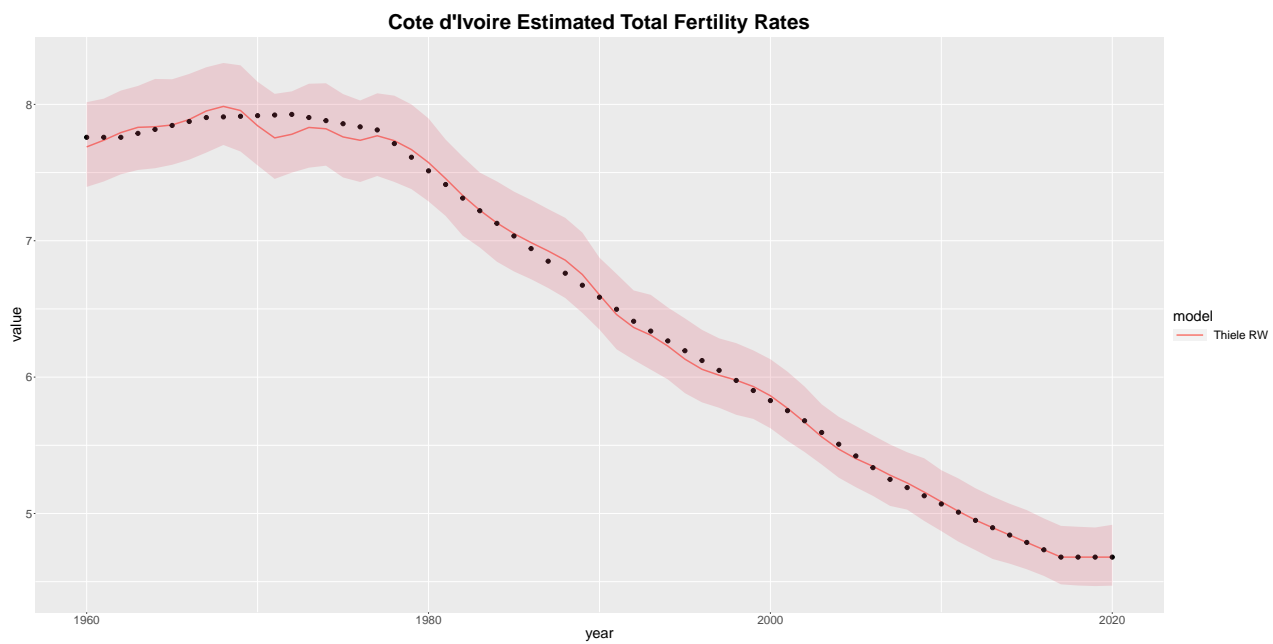


Figure 18: Total Fertility

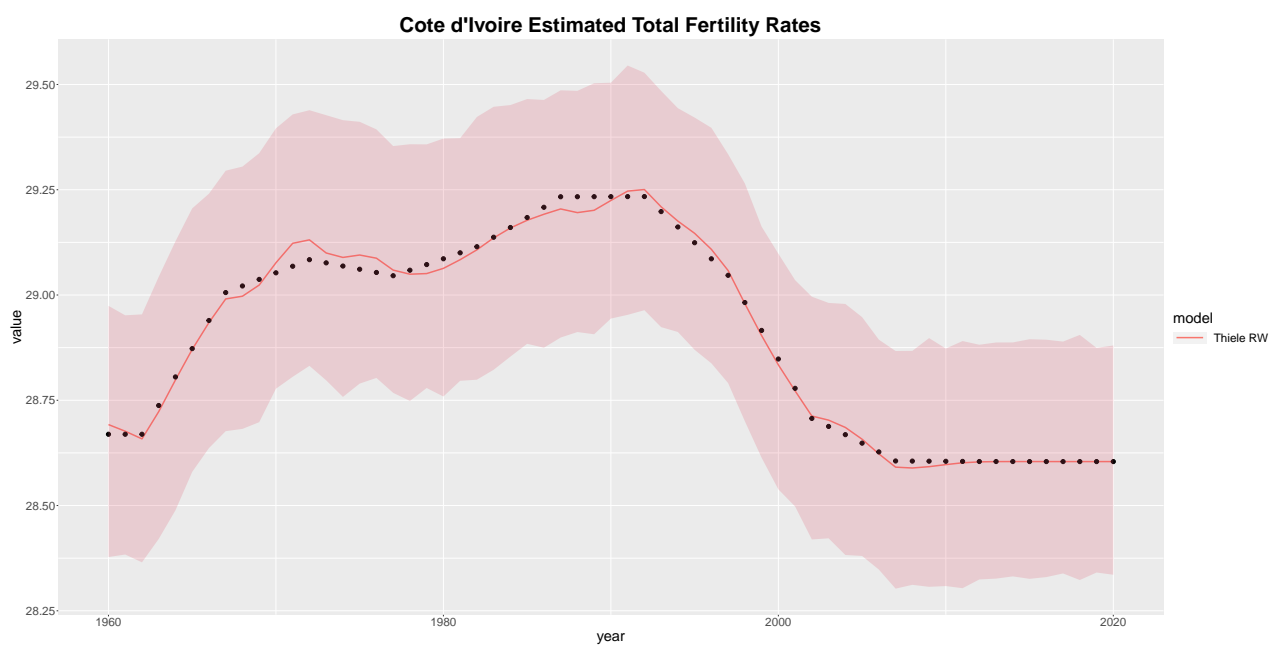


Figure 19: Mean age at births

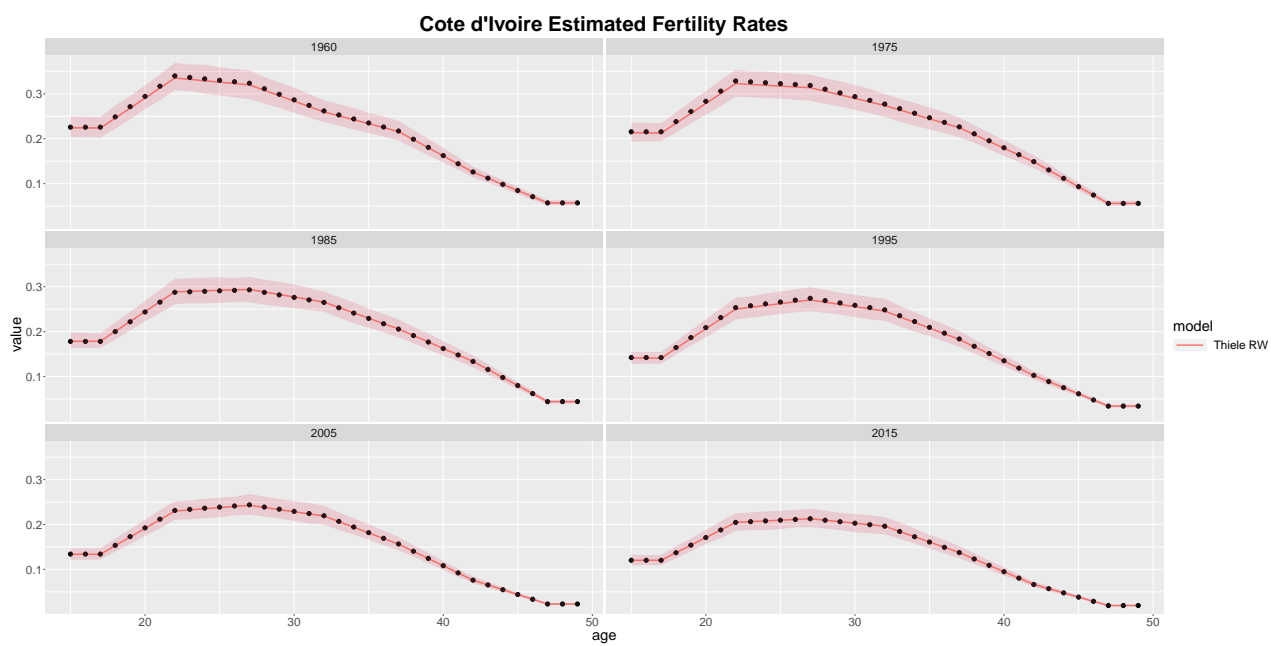


Figure 20: Fertility

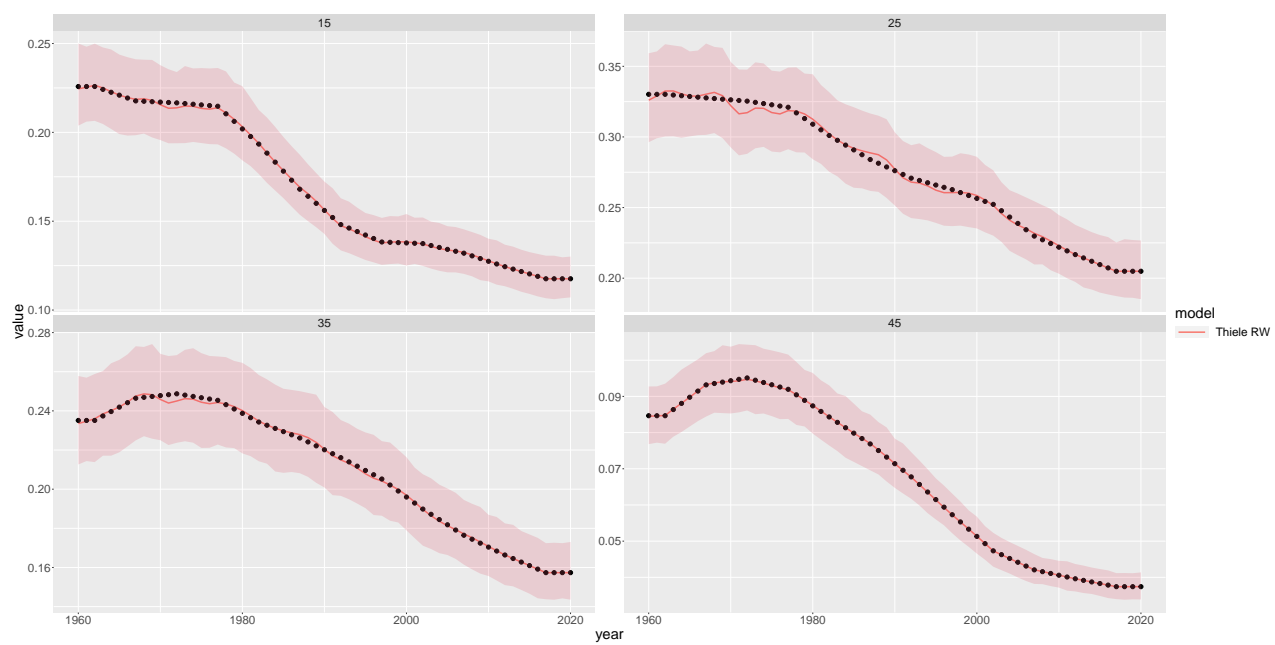


Figure 21: Fertility