- restricted population data likelihood to only up to 70-74
- given the hypervariance for the old age mortality parameters (AB term) a tighter prior
- used the estimated hump component from the LQ model in the initial year (1960) as prior mean for the initial states of the hump component
- re-centered priors for the ρ to approximately around 0.5, i.e. logit$(\rho) \sim N(1.1, 3.0)$
  - converged for all countries without manual tweaking except for Angola (1 Census), Congo Democratic Republic (1 Census), Gabon (Census period mis-labelling)
  - results are much more sensible in terms of mortality schedules
  - estimated epsilon are much more sensible
- Also tried to have $A_m = A_f + A_d$
  - hard to converge, a lot failed
  - for those that converged, estimates are similar to above
  - Kenya AB term, Malawi insensible A, Mozambique AB term, Senegal AB, Uganda AB term
- correlated RW walks between male and female hump components?
- maybe overall prior for hypervariance still too loose, will investigate tightening up all together

Angola:

- only 1 census (in2014) from DYB after 1960 (also one in 1960 but at the moment using WPP 1960 for generality)

Benin:

- much sensible mortality schedules compared to before
- female $m_x >$ male m_x at young ages in the earliest years
- migration across ages too extreme?

Burkina Faso:

- male B term
- female m_x ¿ male m_x at young ages in the earliest years
- female migration insensible across time

Burundi

- cannot converge with the initial values in 1960 given by the LogQuad
- requires a flatter hump in 1960 as initial values to converge (lambda = 0.005, delta = 0.3)

Cameroon

- I still think some of the trend in lambda shifted to B

Chad

-

Congo

- check what happened around 1995-1999
- some of the trend in lambda shifted to B?
- male migration over time insensible

Congo Democratic Republic

- only 1 census from DYB after 1960
- some DDHarmony error that I have yet to look into

Cote d'Ivoire

- some of the trend in lambda shifted to B?

Eswatini

- female m_x ¿ male m_x in te most recent years at some ages
- migration across age too un-smooth?

Gabon

- inconsistency in census period labeling, need to go back to it

Gambia

- estimated B kink at 2010, possibly due to DHS data
- estimated ${}_{45}q_{15}$ crossing over at early years

Guinea

- wiggly estimated lambda
- female m_x ¿ male m_x at young ages

Kenya

- messy estimated B

Lesotho

- female mort schedule too sharp at 15?

Liberia

- female m_x ¿ male m_x at some ages in the most recent years

Madagascar

- cannot converge with the initial values in 1960 given by the LogQuad
- requires a flatter hump in 1960 as initial values to converge (lambda = 0.003, delta = 0.3)
- even when converged results are still insensible in pre-DHS and pre-census periods
- maybe migration?

Malawi

- unrealistic female A $>>>$ male A
- ${}_{45}q_{15}$ crossing over coz of A

Mali

- estimated male U5MR lower than WPP/IGME estimates in all years

Mozambique

- messy estimated B
- (coz of the spike in 1985 also seen in GBD estimates?)
- need to double check spline estimates whether wiggly

Namibia

-

Niger

- estimated ${}_{45}q_{15}$ crossing over at early years
- estimated male B too flat?
- female m_x ¿ male m_x at most ages

Nigeria

- some of the trend in lambda shifted to B?
- wiggly male migration over time

Rwanda

- some of the trend in lambda shifted to B? (genocide)

Senegal

-

Sierra Leone

- wiggly B
- wiggly migration
- double check with spline estimates, see if wiggly over time as well?

South Africa

- migration wonky
- deviation from initial fertility values are large
- ${}_{45}q_{15}$ consistently lower than GBD/WPP

Tanzania

- some of the trend in lambda shifted to B?

Togo

- cannot converge with the initial values in 1960 given by the LogQuad
- requires a flatter hump in 1960 as initial values to converge (lambda = 0.003, delta = 0.3)
- some of the trend in lambda shifted to B?
- over-smoothed humps? coz of the flat hump initial values

Uganda

- wiggly male migration over time

Zambia

- some of the trend in lambda shifted to B?

Zimbabwe

- some of the trend in lambda shifted to B?