**Summary of Monica’s Recommendations**

**ATM:**

There are **two Weibull distributions** with the following estimated parameters:

* carriers: lambda=88.37458; kappa=3
* non-carriers: lambda=159.714; kappa=2.25881
* In our model we assumed a Weibull distribution for carriers, therefore we assumed the same for non-carriers.

However, since people usually don’t have breast cancer before 15 years, we used a “breast age” in the Weibull formula, which is the age – 15: the formula becomes

**1-exp(-((age-15)/lambda)^kappa).**

The resulting **penetrance estimates** that are shown in Figure 1A for carriers are the following:

* 0.02238368 by 40 years of age (95% credible interval: 0.0152761–0.03185121)
* 0.06022862 by 50 years of age (95% credible interval: 0.0457712–0.0741869)
* 0.1236807 by 60 years of age (95% credible interval: 0.09851666–0.1473286)
* 0.2141971 by 70 years of age (95% credible interval: 0.1661368–0.2584699)
* 0.328261 by 80 years of age (95% credible interval: 0.245524– 0.404337)
* 6.02% by 50 years of age (95% credible interval: 4.58–7.42%)
* 32.83% by 80 years of age (95% credible interval: 24.55–40.43%).