Informal Discussion Transcript:

Session 1B: Happily Ever After, Marriage and Old Mortality

Living to 100 Symposium Orlando, Fla. January 8–10, 2014 SOCIETY OF ACTUARIES LT100 Session 1B: Happily Ever After, Marriage and Old Mortality

DALE HAGSTROM: A question for Dr. Jarry, just a minor point perhaps. I may have just missed it if you said it, but when you made the comparison between the spouses of centenarians and the siblings of the spouses of centenarians, did you, just as you did for the spouses, control for the idea that that sibling of a spouse would also need to have been alive beyond age 40?

VALERIE JARRY: Yes, we did control for the age at which spouses had to survive to age 40 to be included in the analysis, yes.

DALE HAGSTROM: Siblings as well.

VALERIE JARRY: As well, yes.

TOM JONES: Hello, my name is Tom Jones. I actually work at Prudential in charge of the global longevity underwriting team there and we do a lot of pricing on transactions so some of the stuff that came out from the last speakers, Dr. Poulain and Dr. Wang, is something that's contrary to what we believed and we actually learned a lot, I think, listening to this today. It has to do with the widow effect and it seems as though we have a lot of males that we are underwriting who we know are married and our assumption has been that once the male dies, the second life, being the female spouse, is likely to have a period where their mortality gets, you know, significantly worse and so when you were actually looking at the beneficiaries or the widows, once they've been there for a while, and trying to

compare that to the second lives who are still married to the primary and then ultimately may live and be a widow down the road, how you handle those second lives that are married to those males. It feels like there is a period of time where you may be saying that the mortality for that second life is actually worse and once the male dies, it actually improves, so I just want to make sure I have that clear. I guess just restating the question, the second-life female, while married to the primary male, as the male's maybe health starts to deteriorate, it feels like for that second life, the mortality may not in fact be better and I want to just get that clarified because that to us is a very important assumption, is what we assume for that second life while the primary is still alive. I also feel like even Dr. Jarry could talk to that for a minute because in Canada, you mentioned the widow effect as well. I don't think you really covered it as much as the other two. HSIN-CHUNG WANG: I know we have the future research and we will be considering this section to study that to the marriage and how long he was divorced and how long he will be married again, so we have the project from the Taiwan government and I will do this research, in addition to this paper.

MICHEL POULAIN: Just to come shortly on the impact of widow[hood], often the difference between men and women,

it's clear that you have a shock of widow[hood] that works first negatively but they become positive thereafter and this is more for women because for males, very often it stays negative in the more long term. But what is really important is to know that in our investigation, we have probably for the first time, we showed the productive effect of marriage up to age 75, 80, but we are able to go to 100, and going to 100, we have a long period of time after 75, after 80. And considering that part of the life, living alone seems to be one of the best situations because then you avoid widow[hood], and you avoid a lot of things if your health is following. That's the story.

VALERIE JARRY: Yes, this is something like I said that I want to cover eventually because it's not picked up at all in our data and because spouses of centenarians, of course they died, all of them they died before their spouse, which is not the case with the siblings. A lot of the siblings actually might have died before and after also their spouses, so this is something we have to look through in the future. Thanks.

JEAN-MARC FIX: I'm going to interject a question on that. Is there a period of depressed survival just prior to widowhood? As you mention, you're at stage two where the person is taking care of the other person, so is there a depressed stage, especially for women and mortality in the

Page 3 of 6

years prior to widowhood? And I don't know how you could use that.

MICHEL POULAIN: It has been shown that during the next six months after widowhood, being a widow for women is negative; that's clear. While for men it may stay longer; that's clear. But again, we have a huge variation. I have a supercentenarian in Belgium, she is now reaching 112, this is really the top of the top and we asked some questions about her life and she said, "I was a widow at 75; in the morning, my husband goes to the beach in Majorca and did not come back." And the shock of widowhood was really [non]existent for that person and this is also a person that did a lot of sports and a lot of things like that, so the variation of the situation is a very important thing to be considered in our approach.

JOSEPH LU: From these three presentations, I've learned two main things. The first is that the avoidance of bereavement at old ages is good for longevity, from both Valerie's and Michel's research. Secondly, the avoidance of caring for an unhealthy spouse could potentially be good for longevity. One way to achieve these two effects is to marry someone very young. This is because marrying someone very young would give a higher chance to avoid bereavements and taking care of the spouse in ill health. Do you think the age of the spouse could be a potential rating factor or a factor

LT100-Session 1B

that could affect longevity based on the research that you have done? This question has financial implication in practice. We have observed annuitants, e.g., males in the U.K. are on average three years older than the spouse, but this difference can range between 10 years younger or even three to five years older. So if age of spouse is important, we might want to consider using it as a rating factor.

MICHEL POULAIN: Just on that point of the big difference of age between the spouses, we checked this in our centenarians and we found that for female centenarians, they were a bit younger than their husbands, but only 1.9 years, while the average in the total population is 1.2, so it's not significantly different. But for male centenarians, they were, on average, 4.9 years older than their wife and that's a very significant difference, that's very important, so the difference is very important.

Another part of our work showed that both of the situations for both men and women, when the man is older than the women, it is a positive and we have really several works that have been in this direction: Men should be older than women. Just another point. We are also working in Sardinia with extreme longevity and what we found in this long-living person, the man, because these are mostly men, is that finally they succeed, when they are widowed they

LT100-Session 1B

Page 5 of 6

remarry, and some of these remarry even two times. So being married as long as possible is really a secret for longevity.

VALERIE JARRY: I cannot extrapolate a lot on this, because like you saw in the last slide, we did not really pinpoint these two elements in our data, but this is something that we have to do for the future. So age homogamy, like we said, probably is something to consider and the widowhood effect, also.