

**Reflection Paper:  
Gender Analysis Issues related to Actuarial Science and Risk Management**

**for:**

**Risk Management, Economic Sustainability and Actuarial Science Development  
Project in Indonesia**

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## List of Acronyms

EU	European Union
IFoA	Institute and Faculty of Actuaries
MFI	Microfinance Institution
READI	Risk Management, Economic Sustainability and Actuarial Science Development Project in Indonesia
ROE	Return on equity
TB	Tuberculosis
uWaterloo	University of Waterloo
UNDP	United Nations Development Program
WHO	World Health Organization

## Gender Analysis Issues related to Actuarial Science and Risk Management

The University of Waterloo is serving as the Canadian Executing Agency for the Risk Management, Economic Sustainability and Actuarial Science Development Project in Indonesia. The project's objective is to establish Indonesia as a regional centre of actuarial excellence. The project is working with a range of key stakeholders – including high schools and universities, the insurance and pensions industry, Indonesia's professional actuarial association, and government agencies to:

1. Increase the number and quality of Indonesian actuarial science graduates available to Indonesian businesses, universities and government agencies.
2. Strengthen the linkages between industry, government and educational institutions in support of actuarial science and risk management.
3. Deepen understanding of actuarial science and risk management as a profession.

To help establish Indonesia as a regional Centre of Excellence those who work in Actuarial Science and Risk Management in Indonesia will need to systematically consider diverse gender issues in their work as a routine technical standard. These areas include:

1. **Risk Management** – What gender-related factors constitute a risk that need to be taken into account in risk assessments related to insurance and social protection? It also includes a case study on different factors affecting risk assessments related to health insurance.
2. **Micro Insurance** – What are the key gender variables and factors that need to be taken into account in the development of micro insurance products designed to address risk for the poor in Indonesia?
3. **Gender Balance in the Actuarial and Risk Management Profession** – What are the main gender-related factors affecting women and men's employment in the sector and contributing to gender imbalances in this profession in Indonesia?

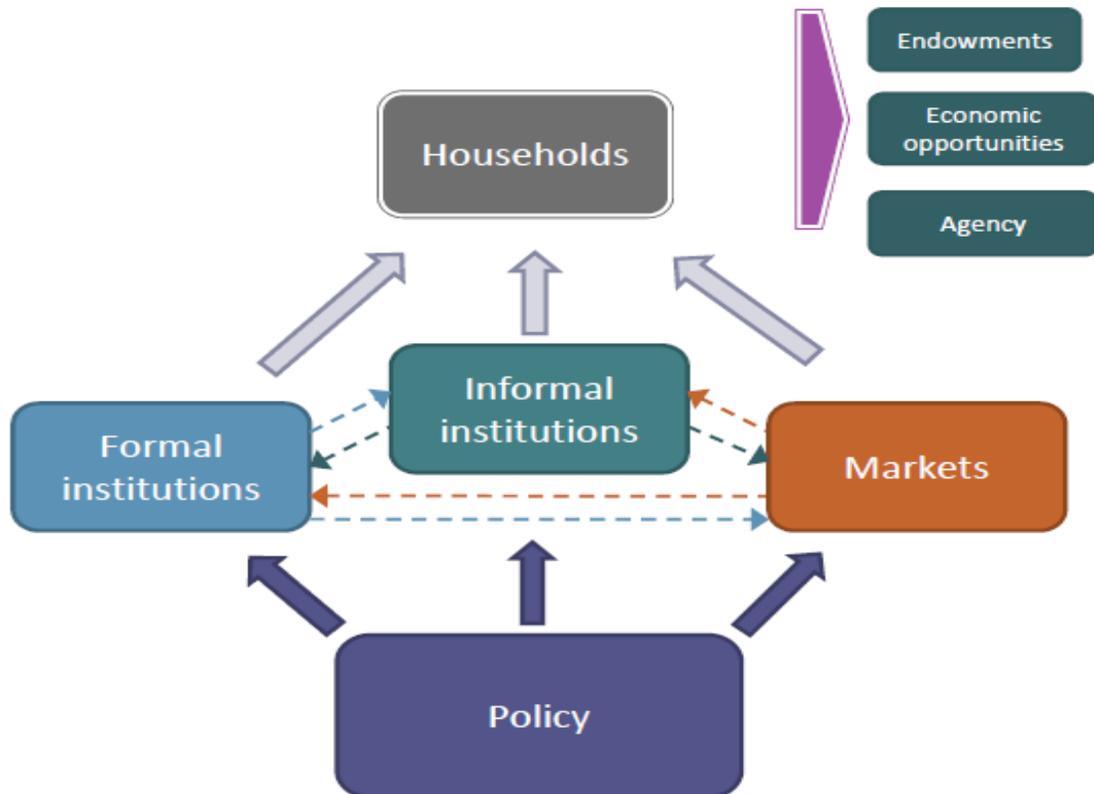
This report reviews key gender issues for all three areas, suggests a possible gender analysis model to follow and identifies potential research questions for further exploration, possibly through the READI project's research fund to fill in related gaps in knowledge and sex-disaggregated data and analysis within the Indonesian context. The report's aim is also to increase awareness of the primary gender issues that need to be considered as part of a technical standard or best practice as well as to generate additional knowledge to facilitate this process in Indonesia. As such, the reflection paper identifies general gender issues associated with actuarial science and risk management. The idea is that Indonesian researchers could use this background reflection paper to help select related themes on which they can then explore diverse themes related to gender and actuarial science and risk management in Indonesia.

## Section One: Gender Analysis Framework

### 1.1 Economic Systems Framework

To set this analysis into context, we propose applying the following gender analysis framework developed by the World Bank in 2012 (See Diagram 1 below).<sup>1</sup>

Diagram 1: Economic Systems Framework



The World Bank's Economic Systems Framework examines the dynamic relationship between economic development and gender equality juxtaposed against their interactions between several other levels and factors. These include interactions between the following:

- **Households** - including intra-household decision-making related to purchasing insurance, and access to resources such as diverse insurance or social protection products
- **Formal institutions** – in this case, the legal system and laws and policies related to insurance regulation and labour laws; the education system with regard to opportunities for women and men to study actuarial science and risk management and the

<sup>1</sup> World Bank. 2012. World Development Report 2012:Overview. Washington D. C.: World Bank Group.

banking/credit system, particularly with regard to making microinsurance products available and accessible

- **Informal institutions** - these include gender values and attitudes and markets such as views of what work is appropriate for women and men, male/female levels of risk taking, and the male/female ratio of poor households needing microinsurance.

By examining these dynamic relationships it is possible to identify key entry points for different policies and actions that will contribute to increased gender equality and in diverse areas of actuarial science, risk management and insurance. (e.g., in markets, laws, service delivery and insurance products available).

The Economic System framework also allows analysts and policy makers to take both “productive” or remunerated work and unpaid “care” work into account in policy and program development, as well as the impact of culturally based gender values on market development and access. It is critical to include **unpaid work in actuarial and risk management analysis as the ILO estimates that the value of unpaid care work can be equivalent to at least half of a country’s GDP.**<sup>2</sup>

Many governments depend on unpaid care work to reduce the financial burden on the State and as a critical complement to social protection funding and support. Women and girls perform most of the unpaid work in all countries. The time required to perform this work can limit women’s economic opportunities in some cases. This may mean that many women are able to spend less time in the workforce compared to men, particularly if they take a career break to have children. This has serious implications for women’s future social security and protection under national insurance schemes and pensions plans.

## **1.2 Research Implications related to Economic System Framework**

1. Conduct a gender analysis of Indonesia’s social protection policies and practices using the Economic Systems Framework as the gender analysis model to determine what are the key gender issues within these policies and practices.
2. Conduct a gender analysis of Indonesia’s insurance industry and products using the Economic Systems Framework as the gender analysis model to determine what are the key gender issues within these policies, practices and products.

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<sup>2</sup> ILO. March 2010. Women in Labour Markets: Measuring Progress and Identifying Challenges. Geneva: ILO.

## Section Two: Gender and Risk Management

### 2.1 General Gender and Risk Assessment Categories of Analysis

ISO 31000<sup>3</sup> defines risk as the “effect of uncertainty on objectives”. Risk is an essential factor any business or institution needs to take into account in its planning and decision-making.<sup>4</sup> If looking at risk from an insurance or social protection perspective, risk management helps protect individuals, families and businesses from some of the uncertainty that can arise from risks such as accidents, illness or death as well as from exceptional circumstances such as natural disasters.

Some of the standard risk categories assessed in any risk management process include the following<sup>5</sup>: Financial; Operational; Governance; Information / Technology; Human Resources; Environmental; Unethical Behaviour and Access and use of services limited by cultural practices and beliefs.

Gender also needs to be added to this list as both a standard stand alone risk category and a factor that each risk category needs to take into account. For example, if we look at the risk category list above from a gender lens a small sample of some potential factors to consider with regard to risk assessment for these categories include:

#### 1. Financial Risks

- Are there any significant differences in loan repayment patterns of men and women? Both microfinance institutions (MFIs) and banks have reported that women-owned businesses default on loan payments significantly less than men.<sup>6</sup>

#### 2. Operational Risks

- Is there a risk that if your institution’s or business’ policies or programs are not considering the different priority needs of both women and men could this oversight

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<sup>3</sup> ISO 31000 is a family of standards relating to risk management codified by the International Organization for Standardization.

<sup>4</sup> Alberta-Ghana Partnership. June 2013. Leadership Orientation in Risk Management. Institute of Public Administration of Canada/CIDA Democratic Governance Program. PPT presentation.

<sup>5</sup> Some others include: Unreliable budgets; Compliance/Legal; Reputation; Political, Insufficient cash flow; New competitors; Strategy and operational process unaligned; Increased client / customer demands; Fraud; New technological advances, etc.

<sup>6</sup> D’Espalier, Bert, Isabelle Guérin, and Roy. Mersland, 2009. Women and Repayment in Finance. [https://www.microfinancegateway.org/sites/default/files/mfg-en-paper-women-and-repayment-in-microfinance-mar-2009\\_0.pdf](https://www.microfinancegateway.org/sites/default/files/mfg-en-paper-women-and-repayment-in-microfinance-mar-2009_0.pdf)

contribute to your institution/business not meeting its objectives effectively? There are multiple studies which have found that businesses and institutions which systematically apply a gender lens and analysis to their work have been able to effect greater efficiencies, growth and profits.<sup>7</sup> Conversely, those that do not face greater risks of failure or inefficient use of financial and human resources. The key reasons for this are that women and men often have a different status from each other as well as differential access to resources, benefits and coping strategies as well as life experiences. All these are factors that affect the degree of risk experienced by women and men in different contexts – with there often being significant differences between the two.

### **3. Governance:**

- If women and men are not represented equitably in decision-making, do you risk missing important perspectives from either group that could have a negative impact on the achievement of your objectives? A 2012 Credit Suisse study examined companies in Latin America, North America, Europe and Asia found that the average rate of return on equity (ROE) for companies with at least one woman on the board over a six-year period was 4% higher than the average ROE of companies with no female board representation (standing at 16%). The study also found that in line with higher average ROEs, the aggregate price/book value for companies with women on their boards (2.4x) is, on average, a third higher than the ratio for those with no women on the board (1.8x). In addition, net income growth for companies with women on the board has averaged 14% over a six-year period compared to 10% for those with no female board representation.<sup>8</sup> This presents fairly compelling evidence for the need for greater diversity within private sector firm corporate governance and has significant implications for human resource practices within the industry.

### **4. Information / Technology:**

- What risks are associated with women and men's differential access to information and technology and their communication preferences? For example, disaster risk reduction planning processes have found women and men often have access to different types of communications at different times of the day (such as radio versus text messages,

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<sup>7</sup> Peebles, Dana, Nada Darwazeh, Hala Ghosheh, and Amal Sabbagh, 2006. Factors Affecting Women's Participation in the Private Sector in Jordan. Centre for Human Resource Development: Amman

<sup>8</sup> Credit Suisse Research Institute 2012. Gender Diversity and Corporate Performance. Geneva: Credit Suisse.

loudspeaker announcements, etc.).<sup>9</sup> How can a government or institution reduce risk of injury or death from natural disasters by taking women and men's different access to and preferences for different types of communication into account? How might this reduce insurance claims for injury, death or property damage?

**5. Human Resources:**

- What risks does your organization face if it is perceived to be an inequitable employer (e.g., poor staff retention, low morale, limited ability to attract male/female talent, etc.)?

**6. Environmental:**

- Women and men interact with and are affected by the environment in different ways (e.g., in household waste management, impacts of climate change, etc.). How might this affect achievement of program/policy objectives or the need for diverse microinsurance products? In particular, there is a need to examine the different vulnerabilities and coping strategies of poor women and men (this latter theme is covered in more detail in Section Two).

**7. Unethical Behaviour**

- Are there cultural patterns of what is considered unethical behaviour that could effect how effective a social protection or insurance program might be? This could potentially include corruption that targets the most vulnerable groups of poor women, with funds paid for insurance premiums either being diverted for personal use by officials or systematic practices of not paying out benefits where the insured has paid for this service. At a human resources level it may include the expectation that women may provide sexual services in exchange for being hired for a job. In the Russian Federation, for example, one common practice has been to specifically request female candidates and include a phrase in advertisements that require female applicants "to not have social complexes". This is an unwritten social code that indicates the female applicants, if hired, would be expected to have sexual relations with their employers.<sup>10</sup> This type of practice will clearly discourage some highly capable candidates from applying for positions, potentially making the companies concerned less competitive.

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<sup>9</sup> Kartini International. 2016. Integrating Gender into Early Warning Systems. Global Crisis Support Response Project: Brussels. PPT presentation.

<sup>10</sup> Kartini International. 2010. Review of CIDA Inc. Gender Analysis of Business Operations in the Russian Federation. Toronto.

## **8. Access and Use of Services Limited by Cultural Practices and Beliefs**

- Are there any cultural practices or beliefs that would limit women's access to insurance/social protection products? For example, in Jordan, a disability program had been based on the premise that women were dependents of their husbands. This meant if a woman worked outside the home and became disabled she was not eligible for disability payments although a man in a similar situation would be since it was assumed that it is men who are the primary breadwinners.<sup>11</sup>

**Inclusion of gender as a stand alone category** would involve including questions in risk assessments to determine if there are any specific gender issues that will have an effect on the outcome of a particular project, program or policy, if these pose a risk to their successful implementation and if by not taking these gender factors into account, there is a risk of incurring increased costs or excluding specific groups of women or men from insurance or social protection coverage to which they should be entitled.

### **2.2 Research Implications related to Gender-Sensitive Risk Assessments**

Key questions to ask regarding gender that need to be considered in standard risk assessments related to social protection or insurance products include:

1. Are there any specific groups of women or men (e.g., by income, age, rural/urban location, etc.) who face increased risk or vulnerability related to accidents, life expectancy, disability, or loss of income or property due to their being male or female?
2. Are there any significant differences between the risks encountered by specific groups of women and men of different ages, locations, ethnicities, income levels, etc.? If so, how will this be reflected in the design of your insurance or social protection products/services?
3. Is the sex-disaggregated data your organization or business will need to answer these questions readily available? If not, how will you collect and use this data?
4. What categories of analysis would standard risk assessments for social protection and different types of insurance that take gender into account from both a biological and socio-

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<sup>11</sup> Peebles, Dana et al. 2006. op. cit.

economic and cultural perspective include? How does this differ from current practice? What types of data are not being collected and analyzed? How does this affect social protection policies and insurance product coverage and risk assessments?

### 2.3 Health-Related Categories of Analysis

Health insurance risk assessments are based on diverse sources of medical research that examine demographic patterns. There are two key challenges with this research. The **first** is that many health studies are conducted solely on male subjects, often primarily those of Caucasian origin. Two reasons for this research bias are that it is assumed that women of child-bearing age could potentially be adversely affected by the testing of any medications for specific conditions on them and that the hormonal differences between women and men could “skew” the research results. However, health research also shows that women and men may react differently to treatment regimes precisely because of these hormonal and other physiological differences.<sup>12</sup> Therefore health research studies generally need to be conducted on both sexes and the data analyzed to determine if there are any significant gender differences. This gender bias in some health research could potentially lead to inaccurate projections of what health insurance should cover and how much it will cost to provide coverage for women and men for specific types of illnesses or conditions.

The **second issue** is that some diseases present differently in women and men. Testing and symptoms, however, again tend to be focused on the symptoms experienced by men. These gender differences can also affect the accuracy of the associated risk assessments.

There are also diseases or conditions that affect one sex more than the other. For example, in the United States men develop diabetes slightly more often than women do with 13.6% of adult men have been diagnosed with diabetes, compared with 11.2% of women.<sup>13</sup> Risk assessments need to take these gender-based patterns into account but also to analyze whether the underlying causes for these differences arise from biological or socio-economic factors or a combination of both.

The following case study examines the gender-based issues related to a major global communicable disease, tuberculosis (TB), and discusses the implications of these issues for social protection and health insurance risk assessments. The purposes of the case study is to

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<sup>12</sup> Kartini International. 2003. Gender Equality Strategy for the Prevention and Control of Priority Communicable Diseases in South America Project. Washington D.C.: PAHO.

<sup>13</sup> Everyday Health. March 1, 2017. What Men Need to Know about Type II Diabetes. Everyday Health Spotlight.

illustrate how health-related risk assessments need to take both biological and socio-economic gender differences into account in order to be accurate.

## 2.4 Case Study – Tuberculosis<sup>14</sup>

The gender issues related to tuberculosis detection and treatment are both biomedical and socio-economic in nature. Worldwide the reported TB infection rates are higher for men than for women and historically these rates are twice as high for men.<sup>15</sup> Tuberculosis is, however, still the single greatest infectious cause of death in women worldwide.<sup>16</sup> A World Health Organization (WHO) study indicates it is not yet clear to what extent these differences result from biological factors, and how much to the under-recognition of TB among women due to poor access to care and other socio-economic factors.<sup>17</sup> There remains considerable debate as to whether men have a greater biological vulnerability to tuberculosis than women.<sup>18</sup>

The United Nations Development Program (UNDP) recently reported that some studies have found that women with pulmonary TB have a different immune response to TB than men resulting in different symptoms and outcomes. This also means that women may not test positive on microscopic examination of their sputum. Another found that TB lung lesions might not be as severe in women as in men thus making diagnosis for women with TB more difficult.<sup>19</sup>

Other studies on infection and disease rates do, however, show that women of reproductive age have a greater propensity for TB to progress **once** they are infected.<sup>20</sup> This progression from infection to disease is as much as 130% higher in women and girls between the ages of 10 and 44 years than it is for men in a similar age group, with case fatality rates being 27 – 41% higher in women and girls between 5 and 24 years of age.<sup>21</sup> This latter statistic may however, also be a reflection of the link between poverty and communicable disease and gender and poverty as opposed to having a biological cause.

The UNDP reports that TB is the cause of 6 to 10% of all maternal mortality in settings with low HIV prevalence (with 15% percent of maternal mortality and up to 34% of indirect maternal mortality in settings where there is high HIV prevalence).<sup>22</sup> UNDP also notes that pregnant

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<sup>14</sup> Case Study excerpted, adapted and updated from: Kartini International. 2003. Op. cit.

<sup>15</sup> WHO. 1998. "Gender and Health: Technical Paper." WHO/FRH/WHD/98.16. Geneva: WHO.

<sup>16</sup> Uplekar, Mukund, Sheela Rangan, and Jessica Ogde,. 1999. Gender and Tuberculosis Control: Towards a Strategy for Research and Action. WHO. Geneva.

<sup>17</sup> Uplekar et al. op. cit.

<sup>18</sup> Neyrolles, Olivier, Luis Quintana-Murci, 2009. Sexual Inequality in Tuberculosis. PLOS Medicine. <http://dx.doi.org/10.1371/journal.pmed.1000199>

<sup>19</sup> UNDP. 2015. Discussion Paper: Gender and Tuberculosis. New York. UNDP.

<sup>20</sup> WHO. 1998. Op. cit.

<sup>21</sup> Uplekar et al. op. cit.

<sup>22</sup> UNDP. 2015. Op. cit

women living with TB are twice as likely to have premature babies, and their babies are six times more likely to die within a few weeks of birth. Women living with HIV are ten times more likely to develop TB during pregnancy than HIV-negative women, and pregnant women living with HIV and TB are more than twice as likely to die than HIV-negative pregnant women with TB.<sup>23</sup> In addition, 20% of TB deaths are related to smoking, which is predicted to increasingly have a gendered impact since growing numbers of women in many countries are starting to smoke.<sup>24</sup> All these are significant factors and correlations that risk assessments related to health, life and disability insurance need to take into account.

#### **2.4.1 Potential Underreporting of TB in Women**

Studies also show that there is a potential underreporting issue. This is flagged in part by the fact that in Europe and the USA in the mid-1900's when the overall Annual Risk of Infection was high, women between 15 and 35 years of age had higher TB notification rates than men in the same age group while in many low-income countries today, the notification rates for men exceeds that in women over 15 years of age.<sup>25</sup> These results and other studies are leading public health workers and researchers to question if men's higher notification rates are not more related to socio-economic issues rather than solely biomedical ones.

The related socio-economic factors could include the stigma attached to TB. While this stigma is starting to fade a bit due to the discovery of new drugs that can cure TB, in many poor communities women who had TB symptoms have been afraid to seek treatment and have their fears confirmed. A TB diagnosis could lead to their being abandoned by their spouses and shunned by family and friends. As many women are still dependent upon men for financial support, they are also more likely to be afraid to report their illness in those areas where this stigma persists or where their poverty will prevent them from being able to access treatment. In general, fewer women also present themselves to hospital for diagnosis and treatment.

Some recent studies have suggested that there are multiple factors that contribute to limiting poor women's access to hospitals. These include the fact that since women, especially poor women, have less access to income and less time than men to seek treatment at public health clinics which may be far from their homes and often involve long waits for service; if they have small children they either have to bring the children with them or find someone else to care for them; and they may not be able to afford to lose time waiting in a clinic that they need to be using to earn an income. All these opportunity costs can contribute to women underreporting TB symptoms and from seeking care, detection and treatment. As such these also all constitute risk factors that need to be taken into account.

#### **2.4.2 Differences in Biological Factors & TB Testing**

There are also some definite biological differences in women and men's experience of the disease. For example, there is less time between detection and onset with women as compared with men. Women's symptoms differ from men's in that coughing and expectoration do not necessarily occur. This may be in part for physical reasons or it may have a social cause with

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<sup>23</sup> *ibid.*

<sup>24</sup> *ibid.*

<sup>25</sup> Hudelson P. 1996. Gender differentials in tuberculosis: the role of socio-economic and cultural factors. *Tuberculosis Lung Disease* 77: 391-400.

women in some cultures feeling embarrassed to spit. It also might be due to a poor explanation of sputum production techniques, with more women having paucibacillary disease and a non-productive cough or a genuine inability to produce good quality sputum leading to the submission of saliva.<sup>26</sup>

Since men's symptoms are used as the standard for TB testing, tuberculosis in women may go undetected for longer periods of time. This means that when it is detected women are often more seriously ill. It also means potentially many female TB cases go undetected<sup>27</sup> and that they present a risk of infecting other family or community members.

Even if the TB tests were designed to take these biological differences into account, one study showed that in some areas gender biases may also lead to women not being tested as frequently as men. In the Gujarat, two of every three men who attended a clinic who had chest symptoms were given a sputum examination, but only one of every three women with similar symptoms was given the same examination<sup>28</sup>. Since the reported infection rates are higher for men and since in some countries there is a tendency to value women's health less than men's or not to take women's complaints as seriously, fewer women may be tested. This would also contribute to underreporting. The Gujarat example also underscores the importance of both collecting and analyzing sex-disaggregated data as clinical personnel likely have limited awareness that there is a problem with under-reporting, i.e., the bias is not conscious but rather reflects underlying social attitudes and values that have been internalized and influence decisions made and related behaviour and attitudes.

This purported underreporting is also considered to be one impact of the "culture of silence" – a tendency for women to bear pain and suffering silently. This is a gender specific behaviour that in some countries and regions is reinforced by both culture and religion. Women are supposed to be strong and bear pain quietly as one means of supporting their families and to show their own kind of female strength. In some parts of South East Asia, for example, one expression is that *"the only sound that should be heard from a woman is the swish of the silk from her sarong"*.

### **2.4.3 TB Treatment**

The research done to date seems to indicate that there are also gender differences in men and women's compliance to TB treatment. One study showed that men tended to stop treatment due to the pressure to return to work or due to alcohol or drug addiction while for women it was the pressure of their family responsibilities and the strain of keeping their condition secret<sup>29</sup>. TB programs in Montenegro, for example, reported that men tended to go back to work early as they were worried about supporting their families and that women who were

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<sup>26</sup> UNDP. Op. cit.

<sup>27</sup> Upkelar et al. Op. cit.

<sup>28</sup> Ibid.

<sup>29</sup> Nair D; A. George, K.T. Chacko. 1997. Tuberculosis in Bombay: new insights from poor urban patients. Health Policy Plan 12(1): 77-85

given extra food rations to help them fight the disease would often share or give these rations to their children as opposed to using them to build up their own nutritional levels and health.<sup>30</sup>

#### **2.4. 4 Implications for Research**

While there is not a lot of definitive data on gender and tuberculosis, the data that exists suggests there are both biological and socio-economic gender differences that have a significant impact on the reporting, detection, treatment and prevention of tuberculosis. Gender analysis therefore could be a highly effective tool to assist health practitioners and planners devise more effective strategies to reduce TB disease incidence, improve diagnosis, and treatment for both sexes. This analysis is also needed to help develop risk assessments and cost projections related to health, life and disability insurance.

For example, both heart disease/heart attack and HIV/AIDs symptoms often present differently for women than for men. Women's risk factors for contracting HIV/AIDs also are often strongly affected by their economic and social status, with many women in some countries not being in a strong position to negotiate safe sex. While these gender differentials do not exist for all diseases and conditions, there is a growing body of evidence that this gender factor is commonly overlooked in risk assessments. In general, one should not be assuming that risk assessment related to health are gender neutral and that all other factors being equal women and men face the same degree of risk.

Potential themes for related research include:

1. Re-examine age and sex-disaggregated data from past surveys and data maintained by health programs to clarify the magnitude and nature of gender disparities and identify illnesses and conditions where there are significant differences in incidence rates for women and men. This is particularly relevant for TB, heart attacks/disease, and HIV/AIDs, but there also may be other illnesses where these differences will emerge if the data analysis is disaggregated by sex.
2. Conduct investigations to clearly understand the role of sexual hormones, sex-related genetic background and genetic regulations, and metabolism, among other factors, in susceptibility rates for specific illnesses and conditions for men and women.
3. Conduct a gender analysis of the different gender-based risk factors associated with infection rates and treatment compliance for specific diseases.
4. What statistical tools and approaches are needed to ensure that health related insurance and social protection products take both biological and socio-economic factors into account?

#### **2.5 To Discriminate on the Basis of Gender or Not?**

Depending upon the existing legislation in each country, differential risk rates based on gender are commonly used to determine insurance rates. For example, it sometimes the practice for insurance rates charged to young male drivers to be much higher than for young women of the

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<sup>30</sup> Peebles, Dana. 2011. Evaluation of Social Inclusion and Gender Equality Outcomes within UNDP Montenegro Country Program 2005 – 2011. Podgorica: UNDP.

same age since the historical statistical evidence is that young men experience significantly higher rates of car or motorcycle accidents than young women in the same age group. By the same token older drivers (50+) of both sexes are often given lower car insurance rates also based on the accident rate patterns for this age group. Globally, women have life expectancies that are longer than men's by two to five years, depending upon the country.<sup>31</sup> This globally known phenomenon is used in some countries as a rationale for establishing differential life insurance rates for men and women, particularly annuities.

The argument used is that this gender "discrimination" can be justified as it is based on statistical evidence borne out by analysis of demographic patterns in diverse risk categories. This gender discrimination can benefit women with regard to being charged lower insurance premiums for accident insurance, but also means that some insurers charge women more for annuities. It also means that men pay more for some types of insurance and less for annuities in some countries.

This form of evidence-based gender discrimination is also not permitted in some countries. In others it is considered an acceptable and fair commercial practice. In the European Union (EU) countries, for example, since December 2012, insurance companies now have to charge the same price to men and women for the same insurance products, without any distinctions on the grounds of sex. The change applies to all new contracts for insurance products, including car insurance, life insurance and annuities.<sup>32</sup>

This gender-neutral pricing means men and women with the same characteristics (e.g., same age, state of health, etc.) have to be charged the same price for the same product. Pricing in EU countries now has to be based on risk factors other than sex. This ruling means people will no longer have to pay more or less, simply because of being male or female.<sup>33</sup> It is thought that this will be a fairer practice as people will be charged insurance premiums based on their actual driving history as opposed to general gender-based behaviour patterns.<sup>34</sup> In essence, the EU's Court of Justice ruled that different insurance premiums for women and men constituted discrimination on the grounds of sex and are thus were not compatible with the EU's Charter of Fundamental Rights that supports gender equality.<sup>35</sup>

It is thought that although this change will likely mean a change in pricing for multiple increase insurance products, these changes should balance out over time for the insurers. The EU noted that the actual impact of the changes would be hard to predict since several other factors come into play when insurers calculate their prices, including the percentage of men and women in the insurer's portfolio, the transition cost, risk margins to adapt to a new system and the level of

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<sup>31</sup> In the few countries where this is not the case, it is generally linked with high rates of gender inequality which contribute to women having shorter life spans.

<sup>32</sup> EU. 2013. Fact Sheet: EU Rules on Gender Neutral Pricing in Insurance.  
[http://ec.europa.eu/justice/gender-equality/files/unisex\\_insurance\\_en.pdf](http://ec.europa.eu/justice/gender-equality/files/unisex_insurance_en.pdf)

<sup>33</sup> EU. Op. cit.

<sup>34</sup> Collinson, Patrick. 14 January 2016. "How an EU Gender Equality Ruling Widened Inequality", The Guardian.

<sup>35</sup> EU. Op. cit.

competition in a specific market.<sup>36</sup> However, overall, it is likely that women's premiums will go up in multiple insurance categories (with the possible exception of annuities), thus meaning that women in EU countries may now be subsidizing men's claims in several risk categories.

### **2.5.1 Possible research themes this issue could generate include:**

1. Which system is most appropriate for the Indonesian context – that of gender- based discrimination on insurance rates or gender-neutral pricing policies? How do these two systems affect how risk is calculated for women and men? What are the cost implications of each approach?
2. How does the existing system of and legislation related insurance pricing policies in Indonesia specifically affect women and men for different types of social protection and insurance products?

## **Section Three: Gender and Microinsurance**

### **3.1 What is Microinsurance?**

Microinsurance refers to insurance services primarily offered to clients with low income and limited access to mainstream insurance services and other means of coping effectively with risk.<sup>37</sup> It is not a specific product or product line nor is it limited to a specific provider type.<sup>38</sup> Rather microinsurance is the provision of cover to a specific market segment – in this case the poor. It is often offered by a combination of governments, donors and microfinance institutions.

Currently, only 3% of the poor in the world's 100 poorest countries have microinsurance, leaving approximately two billion people uninsured.<sup>39</sup> This market segment represents both a huge potential market and opportunity to use microinsurance products to help reduce poverty for a large part of the world's population.

Garand and Swederick note that micro insurance is *“a tool to sustain the forward financial momentum even when a risk event occurs and serves to protect low income households against risks with products specifically designed for the challenges this target market faces”*. In particular, they observe that low-income households are exposed to more risk. They also

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<sup>36</sup> Ibid.

<sup>37</sup> Mico Insurance Network. n.d. Microinsurance. <http://www.microinsurancenetwork.org/working-groups>

<sup>38</sup> Garand, Denis with Donna Swederick, N.D. Introduction to Microinsurance and Pricing. PPT presentation.

<sup>39</sup> Banthia, Anjali; Susan Johnson, Michael McCord, and Brandon Mathews. 2009. Briefing Note - Microinsurance that Works for Women: Making Microinsurance Programs Gender-Sensitive. Geneva: Microinsurance Innovation Facility/ILO.

observe that the poor are more vulnerable since the coping strategies the poor have available to them often contribute to continuing or reinforcing the poverty cycle.<sup>40</sup> An example of this would be selling productive assets to cover off emergency expenses caused by risk events. While it cannot eliminate poverty on its own, microinsurance does help the poor manage risks related to health, death, funeral costs, agricultural (drought, crop disease, land exhaustion)<sup>41</sup> as well as the growing impacts of climate change.

There are some very specific risks to which the insurable poor tend to be very vulnerable. These include: often working in the informal economy and having irregular cashflows; frequently managing risk informally, often through social networks; not being very familiar with formal insurance and possibly not trusting insurance companies.<sup>42</sup> In response to these characteristics, microinsurance as a product needs to ensure that it:

- Is relevant to the risks of low income households
- Is as inclusive as possible
- Has affordable premiums; often with more frequent than annual payments, and small sums insured
- Groups the insured for cost and administrative efficiencies
- Is as simple and straightforward as possible (also taking into account frequently lower literacy rates among the poor)
- Covers all members of a household if possible
- Considers bundling diverse insurance products as one product<sup>43</sup>

### 3.2 Gender and Microinsurance

There are multiple gender issues that need to be taken into account when developing micro-insurance products. These include developing an understanding of both the specific vulnerabilities and risks poor women face and their specific insurance needs.

Banthia et al have identified these gender-specific risks as including the fact that:

1. **Women are over-represented among the world's poor**, comprising 70% of the poor. This is due in part due to their having lower incomes than men generally and less ownership and control of property.
2. **Poor women tend to use coping strategies that may be effective in the short term but can reinforce longer-term poverty.** These include selling assets, pulling their children out

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<sup>40</sup> Garand and Swederick. Op. cit.

<sup>41</sup> Ibid.

<sup>42</sup> Craig Churchill, ILO. 2007. Introduction to Microinsurance. Microinsurance Conference, Mumbai cited in Garand and Swederick. Op. cit.

<sup>43</sup> Garand and Swederick. Op. cit.

of school using business profits to cover short-term emergencies instead of making longer term investments. The allocation of business profit or savings to deal with emergencies prevents or slows down business growth. The selling of productive assets reduces the ability of women to earn an income in the future. Pulling children out of school curtails their earning potential in the future.

3. **Due to pregnancy and childbirth women face highly specific health risks.** They are also more vulnerable to some types of disease, most notably HIV/AIDS.
4. **Women are likely to live longer than men.** For poor women this can lead to long years of increased poverty due to the loss of spousal income or relatives appropriating their property once they become widows.
5. **Women are more likely to work in the informal sector,** an area of work that is far more susceptible to risks than formal sector work where men predominate. These risks include higher rates of asset theft and harassment by authorities. Informal sector workers also generally earn significantly less than formal sector workers,<sup>44</sup> as well as are more likely to work in unsafe conditions than in the formal sector.

Even women who work in more formal areas such as farming also face increased risk of praedial larceny (crop theft) than men. Compared to male farmers in some parts of the world more women farmers work on land that has less secure tenure, is smaller, and of poorer quality with regard to irrigation, drainage, fertility and location. More women than men also have to lease a opposed to owning their land. In general, farming is more expensive for women farmers as they have to hire more labour because of the difference in physical strength between men and women and for security reasons.<sup>45</sup>

Women are also **more vulnerable to gender-based violence** – either domestic violence within the home or sexual assault (either within the home or in public spaces). This leads to a loss of both short and long term productivity and income, with women losing work time due to both physical and psychological injuries. The World Bank gives a conservative estimate that globally lost productivity resulting from domestic violence ranges from 1.2% of GDP in Brazil and Tanzania to 2% of GDP in Chile. These figures also do not include costs associated with long-term emotional impact and second-generation consequences, with one study estimating that the total costs linked to domestic violence for the United Kingdom, including reduced well-being,

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<sup>44</sup> Banthia et al. 2009a. Op. cit.; Banthia Anjali; Johnson, Susan; McCord, Michael; Mathews, Brandon. 2009a. Microinsurance Paper No. 3 - Microinsurance that Works for Women: Making Gender-Sensitive Microinsurance Programs. Microinsurance Innovation Facility. Geneva: ILO.

<sup>45</sup> Kartini International. 2012. Gender and Youth Strategies for PROPEL Project Implementation Plan. Ottawa: Canadian Hunger Foundation.

actually stand at 10% of GDP.<sup>46</sup>

The exacerbation of **natural disasters** due to climate change is also increasing women's risk of injury or death from these events. While both men and women are affected by natural disasters multiple studies show that in many cases, women and children are more vulnerable to the resulting injury or death, with women, boys and girls being 14 times more likely than men to die during a disaster.<sup>47</sup> A study of 141 countries also found that, when it came to deaths during natural disasters, gender differences were directly linked to women's economic and social rights. In societies where women and men enjoyed more equal rights, disasters caused the same number of deaths in both sexes.<sup>48</sup> Therefore in assessing risk for women from natural disasters it can be useful to look at standard United Nations gender indices such as the Gender Inequality Index.

Women generally play key roles in managing risk and resources for their families and Banthia et al observe that this and women's role as primary family caregivers makes them a "natural target segment" for insurance companies. Women are especially interested in microinsurance and savings strategies because they generally have the main responsibility for "*dealing with urgent household shocks, such as the health care needs of children, losses to family income due to a spouse's ill-health or death or ensuring the future of their children in the event of their own death*".<sup>49</sup>

### 3.2.1 Key Microinsurance Challenges Women Face

Poor women have expressed various concerns about existing microinsurance products. These include that:

1. Some insurers do not provide coverage for pregnancy-related costs. This is despite the fact that the World Health Organization reports that:
  - Every day, approximately 830 women die from preventable causes related to pregnancy and childbirth
  - 99% of all maternal deaths occur in developing countries
  - Maternal mortality is higher in women living in rural areas and among poorer communities (i.e., precisely the women who need increased access to micro health insurance policies)
  - Young adolescents face a higher risk of complications and death as a result of pregnancy than other women.

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<sup>46</sup> World Bank Group. Nov. 25, 2015. "*Violence Against Women Exact High Price*". <http://www.worldbank.org/en/news/press-release/2013/11/25/violence-against-women-exacts-high-economic-price-world-bank-says>

<sup>47</sup> Peterson. 2007. Cited in: Cited in: Disaster and Gender Statistics – Fact Sheet. IUCN. [http://www.unisdr.org/files/48152\\_disasterandgenderstatistics.pdf](http://www.unisdr.org/files/48152_disasterandgenderstatistics.pdf)

<sup>48</sup> Neumayer and Plümer. 2007. Cited in: Disaster and Gender Statistics – Fact Sheet. IUCN. [http://www.unisdr.org/files/48152\\_disasterandgenderstatistics.pdf](http://www.unisdr.org/files/48152_disasterandgenderstatistics.pdf)

<sup>49</sup> Banthia et al. 2009a. op. cit.

- Skilled care before, during and after childbirth can save the lives of women and newborn babies.<sup>50</sup> These services become more readily available with the extension of microinsurance to cover pregnancy and childbirth.
2. Currently many microinsurance products are available mainly through microfinance institutions. These consist primarily of life and health insurance policies that are generally tied to micro-loans women have taken. Poor women involved in these microinsurance schemes have indicated that they would like to have access to these life and health insurance policies even after their loans are paid and also to be able to pay a higher premium that would allow them to ensure that all their family members are covered and not just themselves as the individual holders of the loan. This would greatly reduce risks for both themselves and their families and would mean it is less likely that they would have to divert business profits or savings or sell business asset to ensure family care.<sup>51</sup>
  3. Some poor women also have concerns that their spouses would not necessarily give priority to using life insurance payouts to cover critical costs for their children's welfare such as school fees. For this reason, they would like to have microinsurance products that include diverse payout options such as either staggered payouts over several years or with direct payments going to cover school fees or other core expenses for their children or to a nominated beneficiary of their choice (i.e., with beneficiaries not automatically being their spouses).<sup>52</sup>
  4. Women have also indicated that they would prefer that life and health insurance tied to loans be voluntary as opposed to mandatory as is often currently the case. While voluntary schemes tend to be more expensive for the MFI there are examples of voluntary schemes that are financially quite viable such as the SEWA Bank for self-employed workers in India or the BancoSol in Bolivia. Banthia et al observe that the MFIs that offer demand driven programs which allow women to customize their insurance packages based on their own assessment of what they can afford and the specific risks they need to address both serve to empower women by giving them choices and can deliver profitable results to the insurer.<sup>53</sup>

### **3.2.2 Making the Case for Microinsurance for Poor Women**

In addition to the significant impact making microinsurance accessible to poor women can have on reducing poverty (and by extension reduced costs for the state and society), the ILO Insurance Innovation Facility Paper No. 3 notes that women have characteristics that may make

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<sup>50</sup> WHO. 2016. Maternal Mortality Fact Sheet. <http://www.who.int/mediacentre/factsheets/fs348/en/>

<sup>51</sup> Banthia et al. 2009a. Op. cit.

<sup>52</sup> Ahmed, Mosleh; Gabriele Ramm. 2006. "Meeting the Special Needs of Women and Children". In Craig Marshall (ed.) *Protecting the Poor*. Geneva: ILO.

<sup>53</sup> Banthia et al. 2009a. op. cit.

them more attractive to formal insurers. These characteristics include the fact that they are less mobile than men and thus a more stable client and that they are more likely to be more reliable in making regular payments.<sup>54</sup> A 2009 World Bank Group study by D’Espalier, Guérin and Mersland that reviewed the experience of 350 Microfinance Institutions in 70 countries confirmed this overall pattern of women’s reliability. The study found that having “*more women clients is associated with lower portfolio-at-risk, lower write-offs, and lower credit-loss provisions (other things being equal)*”. These findings confirm the common perception that women in general are a better credit-risk for MFIs.<sup>55</sup> This reliability, in turn, would also be highly likely to apply to payment of associated microinsurance premiums.

The case for developing microinsurance products that cater to poor women’s specific needs therefore is a powerful one. There is a large potential market; there are existing product and delivery models that have proven to be both cost effective and profitable; and the product itself can contribute significantly to reducing risk and poverty for a large segment of the world’s female population that is not yet covered by insurance. This reduced risk and poverty has a much wider spin-off effect as when poor women’s risks and poverty are reduced, they generally share these benefits with their children – contributing to both the overall health and welfare of the entire family.

### **3.2.3 Microinsurance Delivery Approaches**

Since the primary objectives of microinsurance is to expand social protection to the poor and to protect microloans against the death or illness of borrowers as opposed to being solely for profit purposes, it is currently developed and offered more often by governments, donors, non-profit organizations and microfinance institutions. This does not mean, however, that it cannot also be offered by private sector firms.

In early 2016, IndiaFirst Insurance, for example, announced that it is seeking to enter the microinsurance market. They plan on doing this by joining forces with self-help groups, micro finance institutions, small banks and payment banks to sell micro insurance products. The company sees microinsurance as a potentially large market in India that will provide a high volume, low-margin business. They also plan on targeting the lower middle class segment of India and not just the poor.<sup>56</sup>

The key to the success of microinsurance schemes for poor women is not so much which type of institutions serves as the delivery channel but rather that these institutions provide flexible options that take both women’s priority risk needs and ability to pay into account. A number of

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<sup>54</sup> Ibid.

<sup>55</sup> D’Espalier et al. Op. cit.

<sup>56</sup> Sangeetha, G. 1 Feb 2016. “India First to Explore Microinsurance”.

<http://www.mydigitalfc.com/insurance/india-first-explore-micro-insurance-297>

existing programs have been able to do this in diverse ways. Banthia et al profile three that stand out in this regard.

1. Colombia's La Equidad, a mainstream insurer of three million people, has structured its life insurance benefits to protect children by ensuring the benefits of its Ampara life microinsurance program pays out both a lump sum for death and funeral support and monthly benefits that can only be used towards education for the two years following the death of a parent and monthly payouts for food for one year.
2. The SEWA Bank in India provides diverse products that cover death, health and women's assets, with options to also cover husbands and children for low incremental fees, with the children's insurance providing coverage for all the family's children in one premium so that families are not put in the position of having to choose just one child to insure. The SEWA microinsurance programs are also integrated with their clients' fixed deposit savings accounts and have the option to pay their insurance premiums from the interest on their savings. SEWA also uses diverse communication strategies to promote their microinsurance products and educate their clients about microinsurance, as well as has found that their female clients value regular face-to-face interactions.
3. The BancoSol in Bolivia offers a health microinsurance program in collaboration with Zurich Insurance. This product provides full maternity coverage with just a seven-month waiting period. This allows women to buy this insurance shortly after they find out they are pregnant. BancoSol is an MFI with close to 200,000 clients so it was able to use this volume to negotiate these more women-friendly terms with Zurich Insurance. The health microinsurance program has been quite successful and within two years after completing a pilot, had 14,000 health microinsurance clients, of whom 62% were women (compared to 45% of loan borrowers).<sup>57</sup>

### **3.2.4 Research Implications related to Gender and Microinsurance**

There are multiple themes related to gender and microinsurance that merit further research and analysis. A small sample includes the following:

1. Which specific groups of poor women in Indonesia are most vulnerable to risks that could be mitigated by having access to microinsurance and how do underlying gender equality issues and values contribute to these risks?
2. What are the existing microinsurance programs in Indonesia, what types of insurance products do they cover and do the microinsurance options offered reflect poor women's

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<sup>57</sup> Banthia, Anjali et al. 2009. Op. cit.

priority needs for coverage and flexibility plus recommendations to address any key gaps identified?

3. What is the intersection between microinsurance needed to address the negative impacts of climate change in Indonesia and microinsurance needed to address poor women's priority microinsurance needs?
4. Which economic models provide the best combination of expanding risk coverage to poor women and men with profitability for the insurer?

## Section Four: Achieving Gender Balance in the Actuarial and Risk Management Professions

### 4.1 The Benefits of Diversity

Apart from the issue of fairness, there is also a strong economic argument for ensuring diversity in the professions of actuarial science and risk management. The Credit Suisse study cited in Section One documents the higher level of growth and book value of companies that include women on their boards of directors. A University of Calgary Business School study also found that businesses that had at least 30% women on their boards of directors were 35% more profitable than those that did not<sup>58</sup>.

A similar principle applies to hiring and promotion – i.e., those organizations/businesses that ensure their workforces reflect both a more equitable gender balance and ethnic diversity are more productive and innovative. Since the 1990s, numerous studies have also found that organizations which apply diversity and gender equality management programs have experienced the following benefits:

- Higher quality of service delivery
- Increased creativity/flexibility<sup>59</sup>
- Higher quality problem solving
- A broader range of skills utilized
- Improved understanding/penetration of diverse base markets<sup>60</sup>
- Increased staff morale and job satisfaction
- Less absenteeism
- Improvements in trained staff retention
- Less turnover resulting in increased savings for the organization<sup>61</sup>

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<sup>58</sup> Canadian Broadcasting Corporation, Radio Interview. The Business Report. October 2006.

<sup>59</sup> Cox T. and S. Blake. 1991. "Managing Cultural Diversity: implications for organizational competitiveness". Academy of Management Executive, Vol. 5, No.3, pp45-56.

<sup>60</sup> Robinson G. and K. Dechant. , 1997. "Building a Business Case for Diversity" Academy of management Executive, Vol. 11, No. 3, pp21-31

In the private sector, increased participation of women can have a positive impact on its ability to market its services or products. The reason for this is that women either make or strongly influence many major family consumer decisions<sup>62</sup>. They also often have quite different tastes, needs and priorities than men. A lack of understanding of these differences can lead to lost market opportunities. Companies with a predominantly male work force are thus generally not as well placed to capitalize on this knowledge.

There are also benefits to the employees when they work in a workplace that is relatively gender balanced. These include:

- Improved interpersonal skills resulting in a sense of belongingness
- Increased communication and willingness to cooperate
- Increased self-confidence leading to higher productivity
- Reduced stress and frustration
- Greater access to recruitment opportunities and promotion<sup>63</sup>.

Given these multiple benefits for both employers and employee it is in everyone's interest to seek effective ways to develop a more equitable gender balance in the workplace. In 2015, the Society of Actuaries President also noted that *"a workforce that excludes underrepresented groups, even inadvertently, would leave behind some the best candidates – candidates with skills, interests and talents that might otherwise be missed."*<sup>64</sup>

## 4.2 Challenges of Achieving Diversity in the Workplace

That being said, there are multiple challenges organizations and businesses have to overcome to achieve a more diverse workforce. In the insurance industry this is also the case. For this reason, it is critical to both identify and gain a good understanding of the key barriers and challenges women and ethnic minorities encounter in this profession. This is a relatively new area of research for the industry, but the Institute and Faculty of Actuaries (IFoA) in the USA conducted a diversity survey in 2015 that provides some interesting results that could be used as the basis for similar studies elsewhere and to help frame relevant research questions in the Indonesian context. Of particular interest is the survey results highlighted the fact that women and men's perceptions of the degree to which the challenges facing women and minority groups are fairly different.

The IFoA survey results are based on 2,358 responses from roughly equal numbers of women and men who are members of the IFoA, representing approximately 9% of the Institute's membership. The survey's key findings were that (italicized comments added):

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<sup>61</sup> Devlin and Associates Canada, "Workforce Diversity: A Royal LePage Relocation Services Training Seminar", 2001.

<sup>62</sup> Chrysler Daimler's market research indicated that women either strongly influence or make up to 70% of consumer decisions regarding car purchases. PPT presentation by Chrysler Daimler, Businesswomen's Trade Mission to Washington, 1997.

<sup>63</sup> Devlin and Associates Canada, "Workforce Diversity: A Royal LePage Relocation Services Training Seminar", 2001.

<sup>64</sup> Reynolds, Craig W. Nov. 2015. "Embracing Diversity and Inclusion". The Actuary: Volume 13, Issue 1.

1. Male survey respondents did not perceive restrictions or obstacles facing women in the workplace as acutely as female respondents<sup>65</sup>. In addition, over a third of men thought that it is easy for women to rise up the ranks as actuaries, compared to fewer than 10% of women who felt this way. This represents an extremely large difference in perception.
2. There was a broad consensus of agreement that working as an actuary is equally accessible to everyone in terms of gender. Over 90% of men and over 80% of women agreed that job opportunities are equally available to men and women. *Often the issue is not one of accessibility, i.e., everyone can apply, but there are frequently unconscious gender biases built into recruitment processes.*
3. A greater proportion of female respondents compared to male respondents felt that domestic responsibilities were a restriction to career progress<sup>66</sup>. Over a third of women felt that spending time supporting a spouse, partner or family is very restrictive to career progress, compared to fewer than 10% of men. *This has much to do with the fact that even in the USA, family care is still considered to be more of a female than male responsibility.*
4. A greater proportion of female respondents compared to male respondents felt that not getting promoted as often as men was restrictive to women's career progress. Almost half of men thought that this is not restrictive at all; fewer than 3% of men thought that it is restrictive, compared to almost 15% of women.
5. A significantly greater proportion of male respondents had never observed sexist behaviour in the office. Over 60% of men had never observed women being overlooked when making serious comments in the workplace, compared to less than a third of women. *This difference in perception is in line with studies on sexual harassment that have shown that what men and women perceive to be negative behaviour in this regard are often quite different, with men finding some related behaviours far more acceptable than women do.*<sup>67</sup>
6. Female survey respondents felt that they receive less career break support than men.<sup>68</sup> Over 40% of women who took career breaks thought the Continuing Professional Development Scheme is unsupportive of career breaks, compared to under a quarter of men who took career breaks (149 of men took career breaks, compared to 362 women who took career breaks).
7. A greater proportion of men thought that their employer is supportive of working mothers, compared to women. Over 40% of men strongly agreed, compared to under a fifth of

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<sup>65</sup> This is in regard to women's job opportunities, promotion opportunities, salaries, and the wider profession's perception of women's capability as actuaries.

<sup>66</sup> This was taking into account differences between part-time and full-time, age, and being a working parent.

<sup>67</sup> Action Aid Bangladesh. 2016. Baseline Study for She Can Project – Bangladesh. Dhakka: Action Aid Bangladesh.

<sup>68</sup> This figures the proportional differences between men and women taking career breaks for personal development and family reasons respectively took into account.

women. *Again this seems to reflect a large difference between how this situation is perceived by those experiencing the situation (i.e., working mothers and those viewing the situation more externally, i.e., male colleagues).*

8. In a broad text analysis, over three quarters of respondents said “no” and “not aware” when asked about salary differences between men and women. However, a some female respondents did report they were aware of unequal pay. The survey was not able to provide any evidence as to whether this is representative of a wider problem.

This latter point bears more investigation since it is not uncommon for women to start at lower salary rates in some industries and to be paid less for doing the same work as a man working in the same type of job. It is not known if this is the case in either the USA or Indonesia in the insurance industry. To address these issues some countries have been taking steps to increase wage transparency. As of April 2017, the UK will require large employers to publish annual calculations showing how large the pay and bonus gap is between their female and male workers, on their websites. Australia has also established a Workplace Gender Equality Agency, which publishes detailed regular statistics on pay gaps, with large firms being required to report on these gaps.<sup>69</sup>

There are also different factors that may affect both the number of women being hired, in what capacities and how quickly (or not) they are promoted. These include (but are not limited to):

1. A perception that hiring women of productive age still constitutes a greater risk than hiring men since they are more likely to take time off for maternity leave.
2. That women with children are less likely to be committed to their jobs and to be willing or able to do overtime as needed.
3. Time spent on career breaks to have children means working mothers have less time in the workforce which can limit their access to promotions as they may lose valuable experience and contacts while on maternity leave.
4. There is still a general perception in most countries that the primary responsibility for family care is women’s. Even in the Scandinavian countries time studies show that women still spend more time on family care and housework than men, e.g., women in Finland spend an average of 2.8 hours a day on these activities compared to men who spend only 1.7 hours.<sup>70</sup>

A 2014 OECD study found that over the last 50 years, women have decreased their hours of unpaid work as they have increased their hours of paid work, but that while men are now doing more housework and child care, they have not made up the difference so that there are still significant gender inequalities in time use in all countries. For example, Turkish and Mexican women spend the most time doing unpaid household work at 6.2 hours a day. This is compared

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<sup>69</sup> Globe and Mail. March 6, 2017. “*Who Is Minding the Gap*”. Toronto: Globe and Mail.

<sup>70</sup> OECD. 2014. Balancing Paid Work, Unpaid Work and Leisure.

<http://www.oecd.org/gender/data/balancingpaidworkunpaidworkandleisure.htm>

to Mexican men who spend 1.8 hours, with Korean men averaging just 45 minutes a day. Interestingly enough, the OECD study also noted that these disparities were less in countries where the number of hours men worked per week was lower.<sup>71</sup>

This study suggests that the differential expectation regarding the time women and men should spend on unpaid household work could potentially have an impact on women's availability for overtime, etc. It does not mean, however, that women who work outside the home have not been able to find solutions to overcome this challenge or should be penalized for this uneven division of labour at the household level nor that employers should not seek to find ways to develop human resource policies and practices that are more family friendly (noting that family friendly work policies tend to benefit both male and female employees). The latter may be one key to ensuring a more diverse and equitable workforce and by implication, a more productive and profitable operation.

### **4.3 Human Resource Research Implications**

This area of research remains fairly wide open with there being multiple possibilities to address gaps in data and knowledge. Key potential research issues related to gender and human resource policies and practices in Indonesia related to the actuarial science and risk management professions include:

1. Review and assessment of the numbers of women and men who work in the industry, years of experience, pay levels commensurate with age, years of experience, education and qualifications and promotion rates and a gender analysis of any significant gender differences found.
2. An analysis of the key factors affecting the entry of women and diverse ethnic groups into the field of actuarial science and risk management, including (but not limited to) cultural and family attitudes, industry Human Resource practices and policies, other gender issues and factors identified, etc. This study would also need to include recommendations for how insurance companies could address any biases or barriers identified.
3. An analysis of what gender-based factors lead to fewer women than men electing to study actuarial science even when there are fairly equal numbers of women and men studying math at the undergraduate level.

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<sup>71</sup> OECD. Op. cit.

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