Agenda

• Introduce social impact investing and explore the role of actuaries in this growing field.

• The presenters will use their international experience of this significant and growing market to:
  1. Clarify often confusing terminology
  2. Describe key trends
  3. Explore the ways in which actuaries can contribute in this field
Bios

• **Kudzai Chigiji** is an Actuary and a member of the IFoA’s Social Impact Investment Working Party. She is also a member of the IFoA Finance and Investment Board. She has worked as a consultant actuary in healthcare and in banking, and chairs the Banking Committee of the Actuarial Society of South Africa, where she is based.

• **Kurt Morriesen** is the Head of Sustainability in Europe for the UN Development Programme. His experience spans many countries across Latin and North America, Europe, sub-Saharan Africa and Asia, working for multilateral development institutions, international organisations, and companies specialized in sustainable investments. He has a particular interest in integrating environmental, social and governance (ESG) factors in projects and investments while keeping a commercial focus.

• **Shilpi Nanda** is an Actuary who led an innovation project with the public sector social health insurance scheme in Ghana. The project was facilitated by the ILO and funded by the French Development Agency AFD. Since joining a UK life insurer in 2019 she has continued to be involved in the microinsurance space.
Investment Continuum

General Investments
- Conventional Equity and Bond Instruments
- ESG Funds
- Portfolio Screening
- Thematic Impact Funds and Notes
- Green Bonds and Loans
- Impact Private Equity
- Impact Venture Capital
- Social Impact Bonds
- Outcomes-driven Loans
- Seed Capital Donations
- Charitable Donations

Responsible/Sustainable Investing
- Market Returns
- Concessionary Returns
- No Financial Returns

Impact Investing "Return First"

Impact Investing "Impact First"

Venture Philanthropy

Philanthropy Donations

Purely Profit

Purely Social

Source: Credit Suisse
### Theory of Change and Logic Model

<table>
<thead>
<tr>
<th>Definition</th>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources (capital, human) invested in the activity</td>
<td>Concrete actions of the investee</td>
<td>Tangible products from the activity</td>
<td>Changes resulting from the activity</td>
<td>Broader change occurring in communities or systems resulting from the activity</td>
<td></td>
</tr>
</tbody>
</table>

| Application / example indicators | $, number of people, etc. | Development and implementation of programs, building new infrastructure, etc. | Measurable actions or conditions that assess progress against specific operational activities, e.g. Number of people reached, items sold | Measurable actions or conditions that demonstrate progress towards specific outcomes, e.g. increased access to education | Effects on broader target population, e.g. sustained drop in poverty, increase in literacy rates |

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**Planned work (internal)** — **Intended results (external)**
Geographical Spread of Impact Investment

- U.S. & Canada: 28% (47% of respondents)
- LAC: 14% (34%)
- SSA: 14% (44%)
- WNS Europe: 10% (26%)
- EECA: 6% (20%)
- Southeast Asia: 6% (29%)
- South Asia: 5% (29%)
- East Asia: 5% (20%)
- Oceania: 4% (7%)
- MENA: 2% (17%)
- Other: 6% (15%)

Source: GIIN 2019
Main Investors (and Employers)

- Fund Managers
- Development Finance Institutions
- Diversifies financial institutions/banks
- Private Foundations
- Pension Funds and Insurance Companies
- Family Offices
- Individual Investors
- NGOs
- Religious Institutions
Link of Impact Investments to SDGs

- 42% Yes, for all of our investments
- 20% Yes, for some of our investments
- 15% No, though we plan to do so in the near future
- 23% No, and we don’t have any foreseeable plans to do so

Source: GIIN 2019
Impact Insurance

Impact Principles

Actuarial Skillset within Insurance
NHIS Mobile Renewal & Digital Authentication in Ghana

Staff at NHIS West Mamprusi District Office coaching members on the use of NHIS Mobile Renewal Solution
### Impact of Insurance on United Nations SDGs

Insurance for social and economic development | Related SDGs: either responds to and/or reduces risk | Overarching SDGs | Insurance can have an indirect impact on related SDGs
---|---|---|---
A. Climate Change/ Food Security | ![Climate Action](image1) ![Zero Hunger](image2) | ![Gender Equality](image3) | ![No Poverty](image4) ![Reduced Inequalities](image5) ![Life Below Water](image6) ![Life on Land](image7) ![Peace, Justice and Strong Institutions](image8) ![Sustainable Cities and Communities](image9) ![Industries, Innovation and Infrastructure](image10) ![Partnerships for the Goals](image11) ![Decent Work and Economic Growth](image12) ![Good Health and Well-being](image13) ![Innovation](image14) | ![Health Protection](image15) ![Social Protection](image16) ![Decent Work](image17) ![Financial Inclusion](image18) ![Climate Change](image19) ![Food Security](image20) ![Agriculture](image21) |
B. Health/Social Protection | ![Good Health and Well-being](image22) | ![Partnerships for the Goals](image23) | ![Peace, Justice and Strong Institutions](image24) ![Sustainable Cities and Communities](image25) ![Industries, Innovation and Infrastructure](image26) | ![Health Protection](image27) ![Social Protection](image28) ![Decent Work](image29) ![Financial Inclusion](image30) ![Climate Change](image31) ![Food Security](image32) ![Agriculture](image33) |
C. Decent Work/ Financial Inclusion | ![Decent Work and Economic Growth](image34) | ![Partnerships for the Goals](image35) | ![Peace, Justice and Strong Institutions](image36) ![Sustainable Cities and Communities](image37) ![Industries, Innovation and Infrastructure](image38) | ![Decent Work](image39) ![Financial Inclusion](image40) ![Climate Change](image41) ![Food Security](image42) ![Agriculture](image43) |
Introduction to the ILO’s Impact Insurance Facility

The ILO’s Impact Insurance Facility’s mission: to enable the private sector, governments, and their partners to realise the potential of risk pooling mechanisms (such as insurance or other coverage plans)

- Achieved through a strategy of stimulating innovation and unlocking capacity
- The Facility’s work is guided by three principles:
  - 1) solutions are people-centred
  - 2) they are driven by both evidence and experience-based learning
  - 3) collaboration among various stakeholders is necessary to deliver results
The ILO’s Fellowship Programme

The **Fellowship Programme** is part of the ILO’s Impact Insurance Facility’s Research and Innovation initiative.

The programme places qualified professionals with organizations to develop innovative solutions to help low-income households and emerging consumers better manage risk.

The Programme provides a unique opportunity for professionals to gain hands-on experience in the inclusive finance and impact insurance industries enabling them to adapt their expertise to the low-income and mass market.

- **Innovation projects with 75+ partners in 40+ countries**
- **55 Fellows through the programme since 2009**
- **Projects on a wide area of topics including digital innovation, distribution, integrated risk management, social health insurance**
Actuaries and Impact Insurance

**Benefits to Actuaries**

- Dealing with uncertainty
- Stakeholder management
- Resourcefulness – able to do more with less
- Exposure to wide variety of business functions
- ‘Reverse’ innovation
- Perspective

**Benefits to Impact Insurance Projects**

- Actuarial rigor and quality
- Systems thinking
- Versatility: capability to contribute in a wide range of functions
- Fill crucial skills gap in the sector more broadly
- Internal training and capacity building
NHIS Mobile Renewal Project
**National Health Insurance Scheme (NHIS) Ghana**

**NHIS Statistics – 2018**

<table>
<thead>
<tr>
<th>NHIS Population Coverage</th>
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</thead>
<tbody>
<tr>
<td>11% 2006</td>
</tr>
<tr>
<td>31% 2010</td>
</tr>
<tr>
<td>40% 2014 - 2017</td>
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</tbody>
</table>

- **165 District Offices**
- **c.3,000 Branch Staff**
- **10.8m Active Members**
- **c.4,000 Healthcare Providers**

**NHIS Comprehensive Healthcare Benefits**

- In-patient
- Out-Patient
- Medicines
- Diagnostics

- **NHIS was established in 2004, and has a goal of universal healthcare in Ghana**
- **NHIS offers comprehensive healthcare scheme to all citizens of Ghana and is subsidised by tax (National Health Insurance Levy)**
- **The scheme is distributed via a network of 165 branches**
- **Scheme penetration reached 40% in 2014 and plateaued**
- **In 2017 NHIS, with support from ILO Impact Insurance Facility, started a project to digitalise the NHIS renewal process aimed at accelerating population coverage**

**NHIS Statistics – 2018**

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  - 11% 2006
  - 31% 2010
  - 40% 2014 - 2017

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- **In-patient**
- **Out-Patient**
- **Medicines**
- **Diagnostics**
The problem to solve: reduce those queues! Save time and money for everyone involved.
Members had to **TRAVEL FAR** to renew. Renewals took a **LONG TIME** at the NHIS office (often hours); Members **LOST INCOME** whilst they waited. NHIA **LOST PREMIUM REVENUE** due to these hurdles.

NHIS district offices were **OVERWHELMED** with people queuing. Process bottlenecks and network issues led to **POOR MEMBER and STAFF EXPERIENCE**.

Large proportion of healthcare providers had **NO DIGITAL METHOD** for **VALIDATING MEMBERSHIP** which required NHIS to physically print expiry dates on back of NHIS membership cards.

An **EFFICIENT** renewal method was desired that could be accessed by members at their **CONVENIENCE** without them needing to travel far to NHIS district offices.

**REMOTE RENEWAL** and **ENROLMENT** processes were required that reduced queues and **RELIEVED OPERATIONAL BURDEN** at NHIS district offices.

**DIGITAL MEMBERSHIP VALIDATION** methods needed to be **IMPLEMENTED** at all healthcare facilities in order for remote enrolments to be possible.
Solution in Three Parts

1. Renewal Reminder

Two SMS reminders sent to every member, 2 months and 2 weeks before membership expiry

2. Mobile Collection

NHIS Members can renew their policies by paying their requisite premium and processing fees from their mobile wallet

3. Digital Authentication and Member Feedback

NHIS membership status is verified digitally at all credentialed healthcare facilities in Ghana. Members respond to SMS to notify if they did not attend healthcare facility
**NHIS Mobile Renewal Solution**

**CHECK EXPIRY:** Using this option, members are able to check when their policy is due to expire.

**BENEFIT PACKAGE:** This option gives a brief overview of benefit package with call center number to find out more.

**MEDICINE LIST:** This option lists top 10 medicines and prompts members to call Call Centre to know about comprehensive medicine list and package.

**RENEW:** This option requires NHIS (or GHANA CARD) number, prompts requisite premium amount and completes payment from mobile money wallet.
Move towards financial sustainability by achieving better balance between inflows and outflows

**Increase Income**

- Simpler renewal process encourages more people to renew which leads to higher premium revenue
- Digital payments and electronic receipting reduce pilferage that is chronic in cash collection systems

**Reduce Claims**

- Digital authentication (with feedback loop) helps align NHIA and provider interests leading to reduction in negative provider behaviour
- Simpler enrolment processes hold potential to reduce adverse selection

**Reduce Expenses**

- Channelling transactions via mobile channel reduces ICT expenditure at NHIS district offices
Benefits to NHIS members

- Increased Engagement between NHIS and Members
- Remote Renewals
- Membership Expiry Reminders
- Reduced Waiting Time
- Reduced Transportation Costs
- Reduction in Lost Income
- Mobile Renewals and Digital Authentication
Expected Impact – Member Experience

Excerpts from a survey conducted amongst 300 members who used NHIS Mobile Renewal Service at Pilot District

100% of members surveyed said that they would recommend the mobile renewal service to their friends and family.

98% of members surveyed (who had claimed since renewing via mobile) said that the authentication experience at provider site was ‘Good’ or ‘Excellent’.

On average, members saved 11.3 hours when they renewed via mobile vs. at the NHIS district office. **In total this is 3 to 5 million working days saved for NHIS members every year***

On average, members saved 4.20 GHS in transportation costs when they renewed via mobile vs. at the NHIS district office. **This translates to savings of c.20m GHS for NHIS members every year***

*Assuming 50% of renewals go through the mobile channel as has been evidenced in the two pilots.
People hanging phones off trees to get mobile network connectivity for mobile money transactions

Project Field Visit, Tanatala, Northern Region

Project team configuring mobile phones for healthcare providers

Project Pilot, West Mamprusi

Link to video: https://www.youtube.com/watch?v=OjKjMjqNzR4

Community Sensitisation
Project Pilot, Yigba-Kibori, Northern Region

Solution Testing For Member Feedback
Project Pilot, West Mamprusi
LINK TO COMMENDATION OF NHIS MOBILE RENEWAL IN 2019 STATE OF THE NATION ADDRESS, BY HIS EXCELLENCY MR. NANA ADDO DANKWA AKUFO-ADDO, PRESIDENT OF THE REPUBLIC OF GHANA:
HTTPS://WWW.YOUTUBE.COM/WATCH?V=JHHIW9COAYS

LINK TO LAUNCH SPEECH AT JUBILEE HOUSE, BY HIS EXCELLENCY DR. MAHAMUDU BAWUMIA, VICE PRESIDENT OF THE REPUBLIC OF GHANA:
HTTPS://WWW.YOUTUBE.COM/WATCH?V=C6H2GSL0CL8
60% - 70% of renewals are via mobile.

C.90% of healthcare facilities that actively serve NHIS members have adopted digital validation of membership.

Both cash and mobile premium collections are accounted via electronic receipting system. This has increased accounting transparency.
Resource Links on NHIA Project and other Impact Insurance Projects

• Webinar on application of design thinking in public sector health insurance
• Webinar on NHIA mobile renewal project impact
• Other impact insurance resource links

Several fellowship opportunities expected in the coming weeks and months!
A wide variety of work experience!

Over a period of 19 months:

- Led my core operations project with the National Health Insurance Authority (NHIA) in Ghana
- Priced a telemedicine product in Ethiopia
- Contributed to a health actuarial study commissioned by the state insurer in Pakistan
- Learnt from the large ‘community of practice’ set up for knowledge sharing amongst fellows and partners on the ground
The IFoA and impact investing

• The Policy team has had discussions with several external groups, including Principles for Responsible Investment and the UK Government’s Impact Investment Taskforce

• As a result, one area noted for potential actuarial contributions is the methodology for analysing historic returns for social impact investments such as social housing, charity bonds, infrastructure and green bonds

• We also had discussions with the Chartered Financial Analyst (CFA) Society about their competency framework for social impact investing. The IFoA plans to develop its own impact investment material for student actuaries
Thank you!