access to insurance initiative

Using Key Performance Indicators (KPIs) in Inclusive Insurance Supervision

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INTRODUCTION

Key Performance Indicators (KPIs) are a powerful tool for supervisors to regularly evaluate the development, soundness and appropriateness of the inclusive insurance (II) sector. ICP 9 on Supervisory Review and Reporting sets out that risk-based supervision should use both offsite monitoring and onsite inspection, and supervisors should collect the necessary information to conduct effective supervision and evaluate the insurance market. Collecting financial and non-financial data, both quantitative and qualitative, enables supervisors to continuously monitor the condition, conduct and risk profiles of insurers, thereby being a critical resource for supporting risk-based supervision.

This benefit also applies to the development of II. KPIs contain valuable information on whether insurers are providing II products that are high-quality, accessible and valuable, while being financially sustainable. Many KPIs for II are not different from conventional insurance. As such, supervisors could likely leverage existing supervisory reporting processes in obtaining II data. However, supervisors may wish to tailor the scope of data reporting, its interpretation and ensuing supervisory measures to reflect the context and objectives of II. To this end, supervisory discernment and experience are thus extremely important. KPIs assist and guide, but do not replace supervisory judgement.

Data and KPI reporting is a resource-heavy exercise for both the supervisor and the insurer. New data reporting requirements often require adaptation of data infrastructure and processes, which are costly both in terms of the investment in technological platforms as well as human resource. In line with a risk-based approach, supervisors may also wish to factor in the costs and benefits of any additional data or KPI reporting for II. However, while data reporting may increase the regulatory burden to insurers, it could also bring about benefits. In a challenging environment of rapidly evolving technology and consumer behaviour, KPIs enable insurers to be more responsive and dynamic. KPIs can assist with a more customer-centric strategy in product and business development. Insurers can continuously monitor how II products perform, and subsequently adjust their II products in response.

This paper provides some insight into how some common KPIs can inform the supervisory development and review of II. The paper first summarises how some insurance supervisors currently utilise II KPIs and highlights some potential lessons. The second section discusses how KPIs can inform II market development. In the third section, some essential KPIs are described, highlighting the information they provide and how supervisors could interpret them from an II perspective. Finally, an overall approach for their collection, analysis and subsequent action are discussed to conclude this paper. These insights are applicable to both defined microinsurance products as well as other II products, such as mass insurance or government-supported insurance programmes.

1. CURRENT SUPERVISORY EXPERIENCE WITH II KPIS

1.1 Selected country examples

A number of jurisdictions where II is present in the market currently require the regular reporting of data and some KPIs to the supervisor. These countries include, among others: the Philippines, India, Ghana, the CIMA region countries[1], Peru, Nicaragua, Brazil, Mexico and South Africa. The II data collected by four sample countries are as follows:

Jurisdiction	CIMA region	Mexico	Nicaragua	Philippines[2]
Type of data reporting	Compulsory	Compulsory	Compulsory	Compulsory
Applicable for which products	Microinsurance as defined by microinsurance regulations[3]	All products registered whether microinsurance or not	Microinsurance as defined by microinsurance regulations[4]	Microinsurance as defined by microinsurance regulations[5]
Which data and KPIs	1. Net income ratio 2. Operational expense ratio 3. Claims ratio 4. Renewal ratio 5. Turnaround time 6. Rejection ratio 7. Growth ratio 8. Solvency ratio 9. Liquidity ratio	1. Registry number 2. Covered risk and type of cover 3. Number of policies, certificates or endorsements 4. Sum insured 5. Written premiums 6. Acquisition, administration costs 7. Margin 8. Number and amount of claims	1. Number of written policies 2. Number of insureds 3. Sum insured 4. Written premiums 5. Claims amount 6. Number of claims	1. Solvency ratio 2. Liquidity ratio 3. Leverage ratio 4. Operational expense ratio 5. Underwriting expenses ratio 6. Claims ratio 7. Proportion of claims paid in less than 10 days[6]
Frequency of reporting	Annually and quarterly	Quarterly	Quarterly	Annually
Mode	Submitted to CIMA and national supervisory authorities	Electronically		

Table 1: KPI reporting requirements in four jurisdictions

1 Burkina Faso, Benin, Togo, Chad, Mali, Niger, Senegal, Guinea Bissau, Gabon, Ivory Coast, Congo-Brazzaville, Central African Republic, Cameroon.

2 Circular letter on "Enhanced Performance Indicators and Standards for Microinsurance 2016". Available online: https://www.insurance.gov.ph/wp-content/uploads/2017/02/CL2016_63.pdf

3 Defined based on having low premiums, low sums insured and simplicity of product.

4 Microinsurance is characterised by low premiums or sum insured, as well as simple processes and covers offered to low-income individuals.

5 Microinsurance is defined based on a daily premium cap and sum insured linked to national minimum wage.

6 With its 2016 regulations, the Philippines removed four ratios it had required in its initial 2010 microinsurance regulations: the Renewal Ratio, the Rejection Ratio and the Growth Rates (in number of insureds and written premium amounts).

The scope of reporting varies greatly by jurisdiction but often does not separate inclusive or microinsurance from other business. Brazil's Superintendência de Seguros Privados (SUSEP), is an example where microinsurance data is reported on a segregated basis. SUSEP requires monthly reporting on insurance products, broken down by microinsurance and non-microinsurance, as well as by life and non-life[7]. The data includes balance sheet data, financial investments, premiums, claims and commissions. The data enables SUSEP to track growth trends in microinsurance products over the years, segregated by life and non-life. For many countries, however, insurance data is primarily collected according to the line of business such as fire, motor, personal accident or others, with no specific analysis of microinsurance data.

Where II-specific data are required, II is usually specifically defined in legislation or regulations. The reporting requirements, which includes a breakdown of information, is formalised either through insurance law or through secondary legislation such as circulars, guidelines and regulations. The supervisors may require II KPI reporting alongside regular supervisory reporting requirements, or on an ad hoc basis as per request. In many jurisdictions, while data may be compiled electronically, the data submission to the supervisor does not seem to be automated through electronic platforms.

1.2 Challenges and insights

Supervisors commonly face challenges in receiving complete data from insurers. Some instances in the Philippines and the CIMA region show that the data is only partially collected in spite of the requirements. For insurers, data compilation is time-consuming and resource-intensive. They may not have efficient systems and staff to extract and process the requested data, leading to lapses in data submission. Supervisory authorities themselves may not have sufficient resources to effectively enforce these requirements.

In order to enable consistent segregated reporting for II, supervisors need to set out a clear regulatory definition in the reporting requirements. Where there is no clear delineation of II, it is challenging for the insurer to segregate and extract the data in their systems accordingly, even when they can or want to report to supervisors. Insurers may end up apply varying definitions of II, making it difficult for the supervisor to compare and analyse. There are also additional challenges if supervisors require reporting on II in addition to the products that are formally categorised as microinsurance. These are insurance products that are accessed by inclusive segments but are not formally approved or registered as microinsurance. Common examples include mass insurance[8] in some jurisdictions or insurance that is tied to government schemes.

Having a clear definition of II for reporting purposes also ensures that the information accurately captures reflects the II context. What insurers consider to be II may not be in line with the supervisor's concept of II. For example, some insurers may assume that any low-

7 The regulatory classifications for data reporting are set out in SUSEP's circular No. 535/2016 (Available online: link http://www2.susep.gov.br/bibliotecaweb/docOriginal.aspx?tipo=2&codigo=37965). Microinsurance data is listed under items 1601, 1602 and 1603.

8 Mass insurance are low-ticket products which reach a wide client-base through mass channels (usually non-traditional ones) irrespective of the socioeconomic background of the client.

premium products are II, whereas the supervisor may have a more nuanced definition covering how the product is designed, distributed and serviced. How II is defined for purposes of reporting would ultimately depend on the supervisors' own policy goals. For example, if the objective is to measure vulnerable groups' access to any form of insurance, a broader definition may be more meaningful. On the other hand, if the objective is to develop the private market for II or a specific coverage type, then a narrower definition may be more effective.

Other organisations, such as industry associations or donors, may also collect data on II. In Colombia, the insurers' association, Fasecolda, set up its own process to collect quarterly microinsurance data from its members. The Fasecolda team then reviews the data submitted, after which the reports are displayed online. Globally, various donors have supported the collection of microinsurance data on a worldwide basis through the Landscape of Microinsurance[9] reports and map.

Data collection by entities other than supervisors has additional challenges:

- Entities may not be willing to publish data for competitive reasons, especially if the data is not aggregated or anonymised;
- Given such reporting is voluntary, it often takes a long time to obtain the data and request for clarifications from submitting institutions; and
- The reliability and consistency of data may not be up to the supervisor's expectations if the data is not based on their own criteria and processes.

Nevertheless, data collected through such initiatives can provide unique insights; for example, referring to cross-country data collected by global donors allows the supervisor to compare its II development to other countries. Relying on industry associations to collect data can also help the supervisor save on resources; however it is important that the supervisor takes steps to verify the data.

The II market is dynamic and thus product offerings, definitions and consumer behaviour are constantly undergoing change. As such, supervisors may wish to consider such differences when comparing KPIs over time and against other countries. For example, when a new II definition is introduced, it may capture products that have existed in the market for a long time. Supervisors may also wish to also keep an eye out for changes and innovation in the market, such as the emergence of new products that should be reported as II, and modify reporting requirements accordingly. Research conducted by supervisors might also bring to light other excluded, vulnerable segments to newly consider as part of the II market.

9 The Landscape publications are available online: http://www.microinsurancecentre.org/landscape-studies/publications.html

2. HOW AND WHY KPIS CAN SUPPORT THE DEVELOPMENT OF II MARKETS

KPIs are an essential tool for supervisors in assessing the status of the II market. It allows supervisors to identify, measure and evaluate the historical performance of the II market against policy goals. The analysis of KPIs also gives supervisors a forward-looking view on trends in the II market, and therefore helps supervisors anticipate how consumers and financial sustainability of II products will be impacted over time. This will help the regulator identify potential outcomes and what regulatory or policy measures to take. KPIs analysis is also an important input for risk-based supervision that serves to inform, rather than replace, supervisory judgement. However, given that data collection and analysis is a resource-intensive exercise for both insurers and supervisors, it is also important that the supervisor clearly identifies its priorities and focus areas. This section explores how KPIs can support supervisory assessments in four key areas:

- The overall growth of II market and access to insurance
- Client value and consumer protection
- Financial performance and sustainability
- Anticipation of trends and issues

The analysis of specific indicators to illustrate each of these points is further developed in section 3.

2.1 Overall growth of II market and access to insurance

Using II-specific KPIs enables supervisors and governments to systematically track progress towards reaching policy goals to grow insurance markets and expand access to insurance. Governments often set and announce ambitious goals for financial inclusion, in terms of outreach, market size as well as types of products they would like to see excluded groups have access to. A dashboard of premium and policy volume data and ratios, broken down by product type or consumer segments can provide an overview of the market size, II penetration and the diversity of products offered. By mapping these KPIs to specific times where regulatory changes occurred, supervisors can assess whether or when policies and regulatory changes had the anticipated impact[10].

Supervisors can also use KPIs to observe whether the product offering is evolving to match the demand from various segments. As II markets mature, it may be important to have more diverse product types and distribution channels available to vulnerable groups in order to suit

10 See "Regulatory Impact Assessments: Microinsurance Regulations in Peru and the Philippines" (A2ii and ILO, 2017). Available online: https://a2ii.org/en/report/newsflash-thematic-reports-briefing-notes-philippines-peru-inclusive-insurance-regulation

more varied needs. Often II products that are offered in large numbers are simpler generic products such as personal accident, credit life or funeral covers; these are also often bundled products[11]. Supervisors and policymakers may take measures to drive the industry to tailor and innovate products and delivery to suit the sometimes more complex needs of vulnerable groups. Demand research is sometimes conducted to assess what vulnerable groups want; priorities expressed by such groups usually extend beyond the coverage provided by generic product types listed above. KPIs can help track whether the types of products available or product features are evolving to meet these priorities.

Systematically tracking KPIs particularly on the demand side could enable a more precise understanding of who the policyholders and beneficiaries of II are. Supervisors can understand in detail which socio-economic segments in which locations (urban/rural) are accessing II and through which channels. Specific segments may have different coverage, servicing needs or ability-to-pay; using data analysis to identify which types of products reach which segments informs the regulators where penetration gaps remain and where and how the previous ones have been closed. It may also refine the supervisors' understanding of which products, and which features, truly meet needs. This type of nuanced information helps regulators and policymakers adjust their financial inclusion and regulatory strategy as the market evolves.

2.2 Client value and consumer protection

KPIs can also be utilised to gain insight on value to customers provided by specific II products. In particular, understanding how the premium is allocated enables supervisors to assess:

- Appropriateness for customers
- Affordability of products
- Accessibility and fairness of processes
- Quality of service[12]

These elements are vital in order to build trust in insurance and develop II markets.

The premium breakdown into claims, expenses and profit margin enables supervisors to assess whether the II product provides value in return for vulnerable groups' hard-earned money. Most of the premium paid should be used to pay claims, even in challenging business environments. Supervisors may wish to consider whether commission levels are higher than what is necessary to achieve outreach and that processes are not unreasonably inefficient. It is important to take note that expenses may represent a higher proportion of premiums for II

11 The practice of marketing insurance products alongside, or as an add-on to other primary products. These primary products may be financial services – such as home loans or other credit products, banking products, etc. – or they may be non-financial products – such as motor vehicles, mobile phones, furniture or services such as passenger flights. See "Issues Paper on Conduct of Business Risk and its Management" (IAIS, 2015).

12 See publications related to the SUAVE concept (MicroInsurance Centre) or the PACE tool (ILO), two frameworks supervisors can use as a checklist or assessment questions to assess the client value of II products.

products than for conventional products due to lower absolute premiums. Supervisors can also gain insight on whether profit margins are fair to low-income households and more vulnerable populations. From the insights gained, supervisors may see a need to take action, such as by modifying II regulatory requirements and product approval criteria.

KPIs also enable the assessment of quality and efficiency of servicing and claims payment. For low-income households, suboptimal service quality has a greater impact. Due to lower savings and lack of other financial buffers, financial shocks are felt more deeply. Timely claims are hence extremely critical. Late or rejected claims coupled with poor service will hamper their trust, renewal of products and the reputation of the insurance industry. Improved penetration can quickly be negated. As with conventional insurance products, KPIs are essential to capture service quality and customer satisfaction: are claims paid on time? Are claims rejected, and why? Are there high levels of complaints about specific products or service providers? This information also enables supervisors to compare between distribution and servicing models and identify which ones are more efficient or valuable.

Monitoring the ongoing performance of II products enables supervisors to compare actual against projected experience in product filings. KPIs can be compared to the financial projections, distribution model and internal processes described in the product documentation and filings. This allows supervisors to assess if insurers are delivering on their promises and take immediate action if the products end up suboptimal compared to the description provided. Over the longer term, this strengthens supervisory ability to assess II product proposals at the approval stage. It also builds understanding of how product development and innovation take place, which will guide longer-term policy and regulatory development.

2.3 Financial performance and sustainability

KPIs can assist regulators in ensuring the financial viability of II products and initiatives by assessing the solvency of II-only insurers. In particular, microinsurance-only or community-based organisations may not have adequate skills and experience at sound risk management and technical processes such as Asset Liability Management and reserving procedures. This could mean higher risk in terms of maintaining financial soundness. Supervisors may wish to pay particular focus on the solvency and good governance of these organisations, using prudential ratios as a guide.

Ensuring that insurers have sufficient funds to meet insurance obligations is crucial for the vulnerable consumer as well as II market development, both of which are in more precarious situations. Firstly, vulnerable groups have lower savings and usually lack other financial buffers. If an II program has insufficient funds to pay claims at a time the financial support is most needed, it would be especially detrimental for an II consumer. It would also break the trust of II consmers, for whom this may be the first experience with insurance. This could, in turn, impede the growth of a nascent II market and deter further industry interest, which may already be minimal.

Focusing on financial performance provides data evidence to regulators on success factors and challenges in terms of sustainability. The KPIs are a tool for regulators to learn from the actual experience of the entities and products they regulate. Supervisors can use this data to

identify models and processes that are more efficient or financially viable. KPIs also allow a comparison between the experience of conventional products and that of II products. Such observations offer rich insights, such as illustrating why some entities enter or do not enter into or remain in this line of business. Where there are success stories, supervisors can share this data as a proof-of-concept to draw more providers into the II business.

2.4 Anticipation of trends and issues

A one-off analysis of KPIs can provide a snapshot of the II market, but regular and continuous monitoring can inform policy and regulatory development more meaningfully. Many jurisdictions collect data as part of ad hoc country assessments, or to get a baseline when setting out high-level goals such as national financial inclusion strategies. However, the II market is dynamic and market evolution and progression can occur quickly. The analysis of KPIs on a regular basis allows supervisors to achieve the following:

- Follow the trends and progress in the II market.
- Observe and understand the impact of regulatory or policy changes.
- Identify trends that can lead to major positive or negative outcomes or risks to market development.

Supervisors can thus assess whether the expected outcomes of specific measures or initiatives are being achieved, identify risks and opportunities, and formulate regulatory measures and strategies accordingly.

Onekey evolving area where KPIs can shed some light is the market dynamics among insurers, intermediaries and other entities in the insurance value chain. In markets where insurers heavily compete to partner with a few intermediaries that have very large client bases (such as mobile network operators (MNOs), microfinance institutions (MFIs) or utility providers), commissions often sky-rocket. Where technical service providers (TSPs) are involved, there would likely be fees and commissions being paid to more than one party. The higher the total commissions paid, the lower the product value. This could also render the product financially unsustainable. For example, an MFI-linked standalone product in Peru was under pressure on two fronts: the claims ratio was close to 100%, and at the same time, the partner MFI demanded high commissions. This impeded the insurer from being able to continue to offer the products at an affordable level. Such situations require insurance regulators to discuss client protection issues with their telco or energy counterparts, as the scope of their regulation may not include such control or oversight over intermediaries.

A more formal, consistent and regular analysis of KPIs can be a means to compare, share and learn from the evolution of the II market across countries and other regions. Comparisons across countries and regions may be hampered by different definitions of II across jurisdictions. However, supervisors can benefit from comparing the data trends and regulatory measures from other comparable II markets against their own. By looking at what has or hasn't worked in other countries, regulators can understand their own market better and generate new solutions with regard to regulatory measures towards II market supervision and development.

3. KPIS FROM AN INCLUSIVE INSURANCE PERSPECTIVE

KPIs for II are similar in a technical sense to those for conventional insurance. However, the role of the regulator and interpretation of II indicators have several important additional components. The regulator may have a mandate or an interest to:

- Advance financial inclusion through II market development and expansion of access to insurance.
- Ensure fair treatment of a vulnerable segment that is unfamiliar with insurance services.
- Ensure the financial sustainability of II to ensure that vulnerable groups have continuous access to insurance services.

This section will set out a list of selected essential indicators and describe their meaning in the context of II. The majority of the KPIs discussed below are part of the essential KPIs listed in *Performance Indicators for Microinsurance: A Handbook for Microinsurance Practitioners* published by Appui au Développement Autonome (ADA), the Belgian Raiffeisen Foundation (BRS) and the Microinsurance Network.

3.1 Outreach and market growth

3.1.1 Market size

The most common indicators used to measure market size are the number of policies, number of covered lives or risks and written premiums by II product type and line of business. These figures give a quick overview as to whether the market is growing in volume. However, they can be further analysed to gain a more nuanced understanding:

- Is the market growing sustainably?
- Is the financial inclusion frontier being expanded?
- Is the market reaching the low-income segment through appropriate products?

1 Growth Ratio =

(Number of insured in period N – Number of insured in period N-1) / Number of insured in period N-1

(Written premium in period N – Written premium in period N-1) / Written premium in period N-1

The Growth Ratio enables the regulator to track if the market is on the intended growth path. The Growth Ratio can be broken down and compared: such as the II market against the overall insurance market, between different types of product lines and distribution channels, between entities, or against other jurisdictions. Overly low or high growth rates can then be investigated further. For instance, low rates may mean that products are not meeting needs. Sustained high growth rates could warrant concerns that there will be a strain on the resources of the insurers, potentially jeopardising quality of service or financial sustainability. Reviewing growth rates in concert with other indicators can help identify underlying reasons and implications. Claims servicing KPIs (see Section 3.2), for instance, can help validate supervisory concerns on the appropriateness of products or service quality. For instance, if turnaround time for claims payment, the rejection ratio or complaints remain on-track, it may indicate that the quality of service is maintained despite high growth rates.

2 Coverage Ratio =

Insured population / Target population

The Coverage Ratio provides more precise information on whether access to insurance is improving and specific financial inclusion targets are being met. Calculating this requires complementary data such as the size of the local population, the low-income segment or other specific target groups (microenterprises, women, rural areas, specific occupational groups and so on). This task is easier for countries where such data is readily available and compiled in a manner that allows cross-referencing, such as via the use of a national identification or social security number. Such data is usually collected by other agencies, such as the national registration department or welfare agencies. This ratio provides more of a nuanced view on whether or how the financial inclusion frontier is expanding, and who is in fact accessing II. As such it also allows more targeted policy and regulatory measures.

3.1.2 Profiles of insured persons

3 Socioeconomic data of the target group =

Income level, occupation, age, gender, household size and characteristics, education and others

Data on customer profile and needs should be at the centre of II product design and development to ensure that II products are designed to match the needs of the segment. It is important to understand their socioeconomic profiles so insurers can tailor benefits, set affordable premium levels or design a suitable sales and claims process based on evidence. Data on the profile of the insured or target segment is rarely included in the regular reporting requirements. However, if this is too onerous, supervisors can explore other ways to ensure insurers incorporate this into their product development process. One way is to require insurers to provide evidence that this data has been considered during the product approval process. Other options are to include it in the supervisory review process, such as via onsite inspection, or ad hoc requests for additional information from insurers on persons insured under the II business.

Collecting data on the II consumer profile also provides greater insight into where outreach gaps remain. Key questions for supervisors are: Who exactly is reached by inclusive insurance products? What target groups remain unserved? Is the market growing across different target groups? Using socioeconomic parameters in the data on the insured would some light on these questions. KPIs can be scoped to products that are accessed by all persons in an income band, rather than only considering products that meet the strict definition for microinsurance products. Written premiums and number of policies can be narrowed down to the number of new policies issued to previously uninsured customers, specific income segments or specific occupational groups. Having this context provides much richer insight on needs. Providing urbanised dwellers with personal accident products is easier than offering standalone life insurance to rural populations; factory workers with frequent but low income have different needs from self-employed women.

3.1.3 Renewal or Persistency Ratio

4 Renewal Ratio =

Number of renewed policies in period N / Number of policies eligible for renewal at the end of period N-1

5 Persistency Ratio =

Number of policies insured at the end of period N / (Number of policies insured at the end of period N-1 – number of policies that claimed over period N, if the policy terminates upon claim)

The Renewal Ratio, or Persistency Ratio for longer-term products, is not only an indicator of competitiveness. For II products, it is also an indicator of customer satisfaction, value for money and accessibility. It is a useful tool for supervisors and can be used to assess whether too much focus is given to growth, outreach and top line and not enough to product quality and suitability.

Renewals and persistency are often much lower for II products than for conventional insurance products but should ideally increase over time. If a renewal ratio is, and remains low, it may indicate that:

- The product may not be meeting the needs of the insured. Premiums may be unaffordable, and benefits may not be sufficient or valuable to customers.
- The insured is not aware that they are insured, which may be the case in products that are bundled with other services, such as mobile airtime.
- The insured is not aware that they have to renew the policy to continue being covered. Lack of financial education and information communicated usually explains this scenario.
- The process to renew policies and pay premiums may not be suitable for the insured. This may occur when insurers have not considered accessibility, income patterns and payment mode when designing processes (e.g. time of renewal versus crop cycle, location and mode of payment of subsequent premium).
- Service may be poor, leading to dissatisfaction and lapse. Insurers and intermediaries may focus too much on enrolling new customers, driven by growth incentives, instead of servicing or ensuring renewals.

3.2 Claims-related KPIs

3.2.1 Rejection and Complaints Ratios

6 Rejection Ratio =

Number of claims rejected / Number of claims in the sample

7 Complaints Ratio =

Number of complaints / Number of in-force policies or claims

Rejections and complaints should be minimal if the insureds understand their benefits and the processes, and service quality is high. If the ratios are higher than expected, supervisors may wish to look into the reason for these rejections and complaints. High rejection and complaints ratios indicate that consumer trust in II could be eroding. High rejection ratios and complaints also mean that insurers' staff have to spend time on invalid claims file review, increasing operational costs and therefore lowering the value for money of II products. Potential reasons for high ratios are usually related to the misalignment with the expectations and needs of the insured. For example:

- People misunderstood their covers because benefits and conditions are too complex, or the insurer's or intermediary's staff did not adequately disclose or explain products.
- The claims process was too complex and people failed to provide required documentation.

3.2.2 Claims Turnaround Time (TAT)

The time required to pay a claim is an indicator of the service quality provided by insurers but also the efficiency of the processes set up for notification, assessment and payment of claims. To have a more accurate assessment of the quality of services, supervisors could look beyond a single average figure on time to pay claims. Two elements are important to consider in meaningfully assessing claims TAT:

- How the timeframe for claims payment is defined.
- How this length of time is then aggregated and reported for a whole portfolio.

A comprehensive measure should take into account time between the risk event occurring (death, access to the hospital, calamity), claims reporting and the actual receipt of the payout. As per the diagram below, several dates should be recorded and the TAT should correspond to the time indicated as segment AD (Figure 1). Insurers usually only report the time elapsed between receipt of complete claims documentation, approval and release of the payout funds. Including the time between the event and actual payout to the beneficiary indicates to the supervisor:

- If it is easy for insureds to understand what is covered and what is required of them to make a claim
- If the claims process is adapted to excluded groups who face challenges accessing official documents
- If the insurer's and intermediaries internal claims processing is efficient
- If the payment process is adequate, for example, if the insureds are underbanked and cannot easily and affordably cash a cheque or receive a wire transfer.

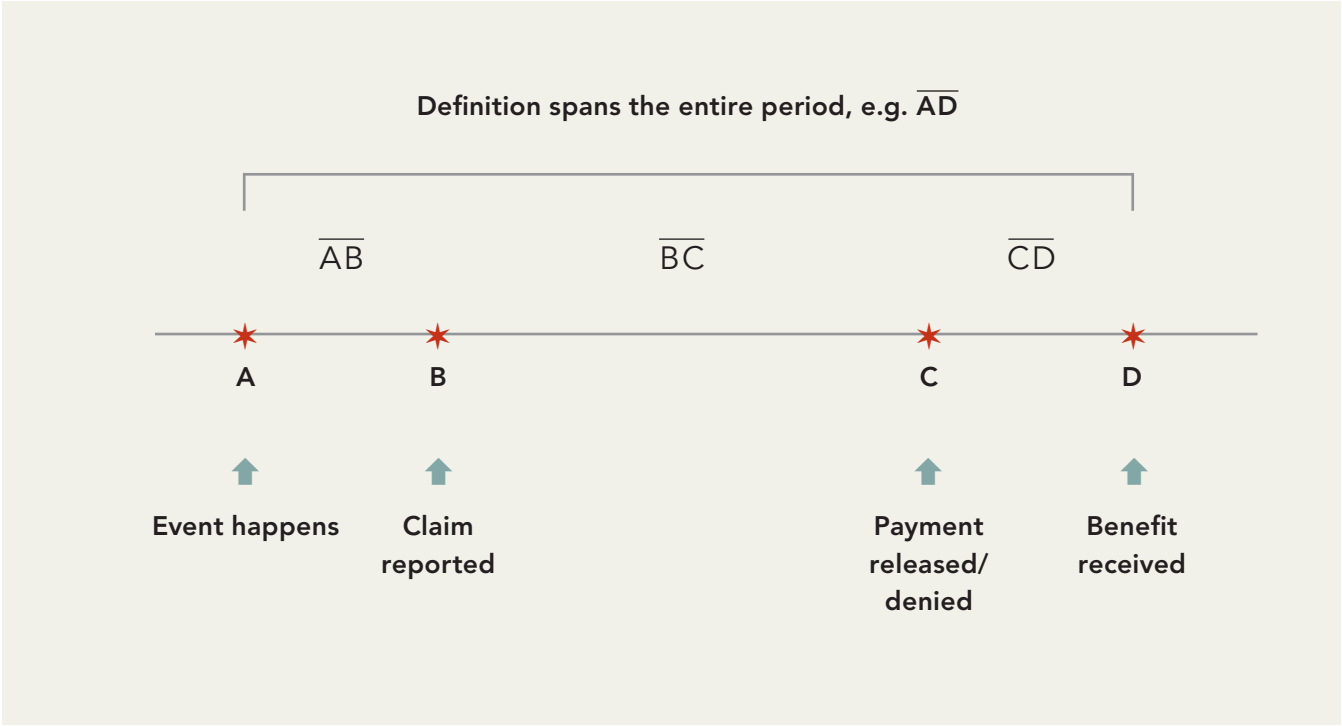

Figure 1: Claims chronology and suggested TAT definition | Source: Diagram from BRS/ADA KPI training and manual

Moreover, the claims TAT can also be dissected in various ways to provide meaningful information. An aggregated TAT indicates the overall performance of the product, line of business or service provider. However, analysing beyond average TATs could provide a richer picture: a range of TAT, and the number of TATs that exceed the regulated maximum time (if this is defined in regulations) and a distribution count by level of performance. An average TAT does not reflect whether most insureds receive quality service. Simple claims may be paid in three days, most claims may be treated in 10 or 15 days while other insureds wait much longer for their payout. As suggested in the Microinsurance Network/ADA/BRS manual, a count of claims paid by range of time required is a better depiction of the experience insureds have. The reported KPI could actually be four or five levels as illustrated in Table 2 below.

Number of Days between occurrence and benefit reception	Number of Claims	% of Total Claims
0 to 7 days	…	…%
8 to 30 days	…	…%
31 to 90 days	…	…%
More than 90 days	…	…%
Total	**…**	**100%**

Table 2: Measurement of TAT broken down into a range of time | Source: Diagram from BRS/ADA KPI training and manual

Regulators who have a TAT target or intend to set one could use this information to ascertain a TAT that provides the best experience and client value. They would also be able to track efforts and progress insurers make in delivering quality services to vulnerable groups. Targets or maximum times should correspond to a reasonable time that fits with beneficiary's needs. Most low-income consumers would need their payout to face an urgent financial obligation for which they usually have little or no savings to fall back on. The impact of varying TATs however may differ by country, target segment and by type of product and line of business. A MILK study[13] comparing two life products in the Philippines with differing claims TAT showed that the time taken to pay claims affects how the money is allocated between wake expenses, the funeral expenses, and post-funeral needs. It also affects the beneficiary's recourse to other sources of financing such as informal lending.

13 See "Doing the Math – Funeral Microinsurance and Speedy Claims in the Philippines". Available online: http://www.microinsurancecentre.org/component/edocman/policyholder-value-of-microinsurance/milk-brief-27-doing-the-math-funeral-insurance-and-speedy-claims-in-the-philippines.html?Itemid=

3.2.3 Incurred Claims Ratio

8 Incurred Claims Ratio =

Incurred claims / Earned premiums

9 Combined Ratio =

(Incurred claims + Incurred expenses) / Earned premiums

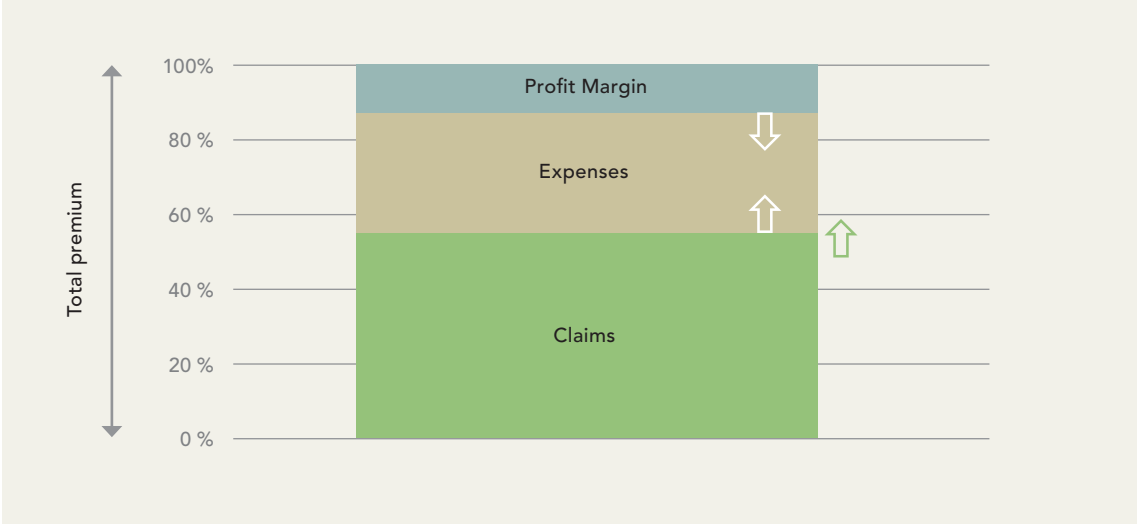

Figure 2: The lower the expenses and the higher the claims, the better the client value

Beyond financial performance, the Incurred Claims Ratio is also an indicator of value for money. While II products should remain sustainable with the combined claims and operational expense ratios below 100%, the claims ratio should be as high as possible in order to offer the greatest value for low-income customers. It is important for processes to be efficient, fees paid to intermediaries to be reasonable for the services provided and profit margins to be reasonable relative to insurance risk element so that products provide value for low-income customers.

Some programmes experience very low Incurred Claims Ratios due to the insured person or beneficiary not being aware of the cover, complex claims processes or high premium levels relative to benefits. For example, in one of the countries studied, the 2016 and 2017 Incurred Claims Ratio for microinsurance was significantly lower than that of the overall industry ratio except in group and individual life insurance. This could be a good prompt for supervisors to look further into the quality of II products. A low Incurred Claims Ratio may be due to low frequency of claims. Similar to rejection and complaints ratios, this could reflect process inadequacies and may require supervisors' attention:

- People misunderstood their covers because benefits and conditions are too complex, or the insurer's or intermediary's staff did not adequately disclose or explain products.
- The claims process was too complex and people failed to provide required documentation.
- The risk exposure may have been overestimated, and assumptions made in setting premiums are erroneous. Premiums are too high relative to the cover obtained.

II products need to achieve a balance between profitability and paying out claims. Profitability would ensure that the products are financially sustainable, the insurer remains solvent, and therefore II products can be continuously offered. At the same time, having most of the premium channelled towards paying claims ensures there is value for the II consumer. However, it is important that supervisors consider their market peculiarities, the circumstances surrounding cost structures and claims, and set a reference point or range that is reasonable for their jurisdiction. Claims ratios should be analysed together with the premium breakdown as a whole. For example, premium-setting assumptions may be overly conservative due to the lack of pricing data. The Operational Expense Ratio offers further insight in this regard (see Section 3.3.1). Other KPIs such as the rejection ratio could further explain the reasons behind the claims ratio.

3.3 Other KPIs

3.3.1 Operational Expense Ratio

10 Operational Expense Ratio =

Incurred expenses / Earned premiums

The Operational Expense Ratio indicates the cost structure of the product. Along with the claims ratio, it illustrates where premium funds are channelled and therefore gives supervisors further insight on value to consumers. The lower the ratio relative to claims, the better the client value. The numerator theoretically includes all operational expenses borne by the insurer:

- Acquisition costs (commissions and partnership fee, marketing, etc.)
- Expenses related to claims administration, assessment and payment
- Expenses related to renewals

- Administrative expenses (documentation printing, overheads, ongoing servicing and enquiries)

- Compliance cost

The Operational Expense Ratio for II is commonly higher than that for conventional products. Low absolute premium levels of II products mean that expenses commonly represent a large proportion of the premiums. More importantly, II often involves using non-traditional distribution models. II consumers can be more challenging to reach, as they live in remote areas or have a less advanced understanding of insurance. In leveraging on non-traditional intermediaries such as community-based organisations, insurers may need to test out new remuneration structures or incur higher operational costs on training, or carrying out awareness or education strategies. This could make operational expenses higher than where insurers leverage traditional insurance agents or standard group insurance policies.

Operational Expense Ratio may also vary greatly by line of business. For example, credit life and personal accident products are often bundled with loans, motor insurance or other non-financial services. Acquisition costs for such products may be lower, provided the intermediary does not charge high upfront partnership fees. Basic term life products are easier to understand and have less complex claims documentation and assessment. As such, there is room to simplify administrative processes, and therefore lower administrative expenses. In contrast, health products covering specific types of diseases may require more onerous paperwork and claims assessments, and thus the operational expense may justifiably be higher. All other cost elements being equal, for products where the incidence of claims is low, the Operational Expense Ratio is also lower.

Supervisors, therefore, need to consider if such operational expenses are justified in order to deliver insurance services to low-income segments. Does it still maintain satisfactory client value? Is it acceptable for the initial years of the II product launch, and should it lower as the market matures? If the commissions and costs of internal processes are lower, premiums can also be lower and more affordable. It is important that the supervisor engages with the insurer to understand the reasons for the expenses. For example, if the II provider may have judged that there is a minimum fee needed to incentivise the intermediary to sell the product. Commissions to partners may be high because the partner company commands a high number of potential clients and a large proportion of its market, and therefore have strong bargaining power[14]. This is often the case in telco industries. Supervisors can form a view by comparing across various II programmes, using programmes that have more efficient processes as a benchmark.

14 For an example of how understanding commissions, expenses and profits can be used to inform supervisory analysis, see the case study on Ghana in the A2ii consultation call report "Measuring insurance development: Beyond the insurance penetration rate". Available online: https://a2ii.org/sites/default/files/reports/21._consultation_call_engl_web_0.pdf

3.3.2 Net Income Ratio

11 Net Income Ratio =

Net income / Earned premiums

While profitability is important to ensure solvency and that insurers are interested in II, supervisors may wish to ensure that II providers are not profiteering of financially vulnerable groups. The net income ratio, which represents the margin for insurers, could be used as an indicator for comparison between products, lines of business or target segments. In considering this ratio for the II market, the following specificities are relevant:

- The target segment is new to insurance, and therefore usually have little or no comparison point to assess if the benefits and premiums are worth paying for.
- The hard-earned income of financially vulnerable groups should provide as much return to them as possible.
- In nascent or developing II markets, there is usually a lack of competition or product options, leaving insureds limited to no product choice. II providers have high bargaining power and supervisors should ensure they do not abuse it by pricing at higher-than-reasonable margins.

3.3.3 Solvency

12 Solvency margin =

Surplus of assets over liabilities, with a view towards ensuring that the insurer is able to meet its obligations to policyholders when they fall due

Similar to any other insurer, specialised II providers should remain solvent[15]. This would include any mutuals, microfinance institutions, social enterprises, community-based organisations or other entities that are licensed as dedicated II providers. Solvency is the insurer's ability to meet its obligations to policyholders when they fall due. In order to ensure insurers are solvent, supervisors typically require the insurer to hold a minimum amount of surplus of assets over liabilities (required solvency margin, or also known as capital adequacy requirements). Typically, insurers are required to show at specified time intervals that its available solvency margin exceeds the required minimum margin (solvency test). It is important that supervisors

15 For more guidance and discussion on solvency requirements refer to the ICP 17 Capital Adequacy (IAIS, 2017) and the paper by the Financial Stability Institute "FSI Insights on policy implementation No 14: Proportionality in the application of insurance solvency requirements".

ensure that II providers meet regulatory solvency requirements and subject to solvency tests, similar to other insurers.

Within a proportionate solvency regulatory framework, the calculations of the solvency requirements components may be simplified for a specialised II provider. The IAIS does not currently prescribe specific solvency requirements and allows for variations that are appropriate to the nature, scale and complexity of the insurer and in limited circumstances. For dedicated II providers, the approach to calculating insurance liabilities and prescribed capital requirements for ongoing solvency can be simplified, such as using a formula-based approach. A more sophisticated solvency regime for dedicated II providers would reflect the differences in the risk of different types of II products in the jurisdiction. The assets that are recognised as eligible for the purposes of meeting the required solvency margin may then be tailored accordingly: for example, if most of the products are short-term, admitted assets could focus on low-risk assets such as cash or cash-like investments.

3.4 Analysis of KPIs

Supervisors may wish to consider basing their assessments on a number of KPIs in totality rather than on a single indicator or number. This would enable a more holistic assessment. Supervisors could also identify an acceptable range that supervisors deem to be a positive outcome for client value. The following table provides a sample of how supervisors could set acceptable ranges for the different KPIs:

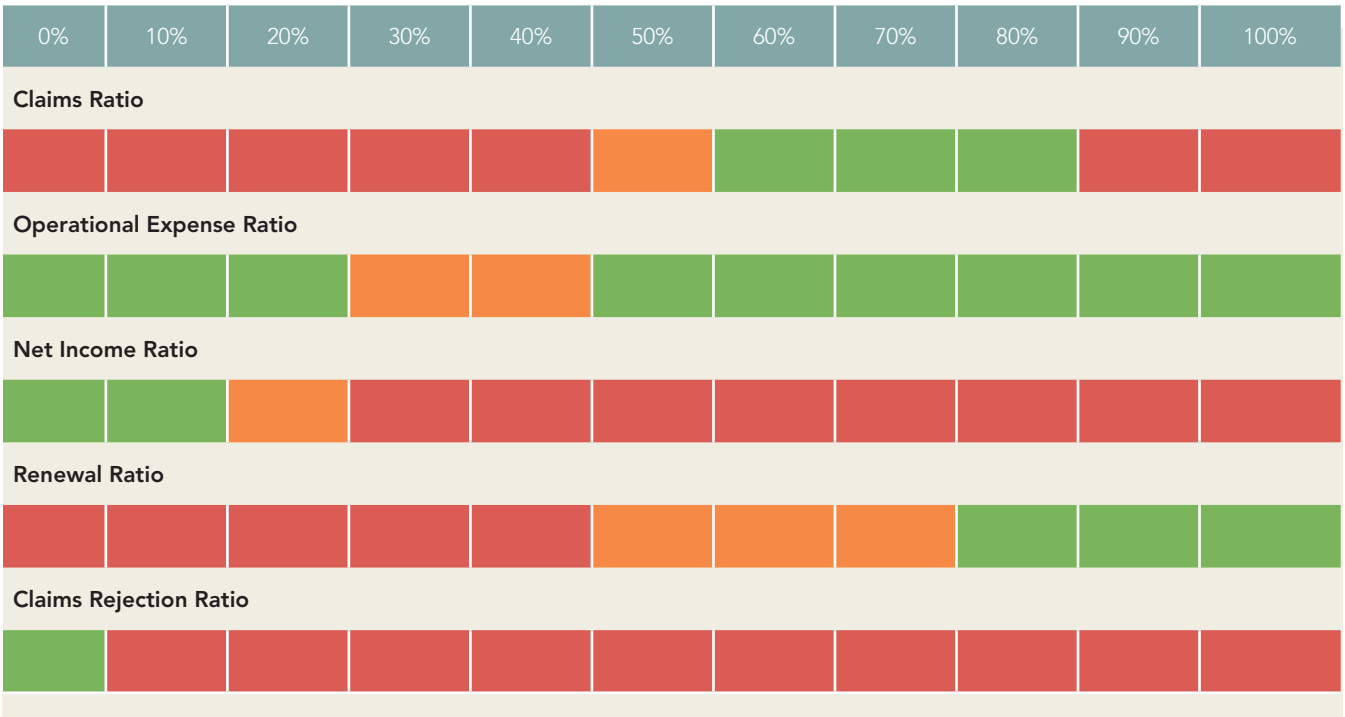

Table 3: Sample of target ranges for II KPIs

In identifying acceptable ranges, taking into account the local market context and conditions is important. Factors such as wider insurance market dynamics, the type of risk, the target segment profile and the stage of II development all affect how KPIs should be interpreted and targeted. A good starting point would be to compare the II indicators against indicators for the overall insurance market. This could help supervisors isolate II-specific issues from broader factors impacting the insurance industry as a whole, which would guide the supervisor in setting expectations and targeting its solutions more appropriately. For example, if digital infrastructure in the country is challenging, it would limit how cost-efficient any insurer's administrative processes can be, whether II or otherwise.

Supervisors may wish to be cautious in using KPIs as targets, as the nature of the target could influence the behaviour of the industry. In particular, a mandatory target may have unintended consequences. Setting a mandatory minimum claims ratio or a maximum operational expense could simply lead to insurers increasing premiums for the sake of compliance, or if unable to do so, ceasing to offer the product. Insurers may also simply not enter the II market due to compliance risks and cost. For some regulators, intervening in the price of insurance products, directly or indirectly, is outside their mandate or supervisory approach.

Supervisors should consider how to analyse the data based on parameters and breakdowns that would yield the most useful insights. For example, if the supervisor is aware that certain types of intermediaries are charging high commissions, supervisors could analyse KPIs by distribution model, type of intermediaries, or even by individual intermediary companies. Comparisons across time, insurers, distribution channels and jurisdictions can provide additional insight on what may be adequate levels for each of the KPIs.

KPI monitoring is a technique that informs risk-based supervision. KPIs should never be viewed or acted on in isolation. Supervisory judgement, experience and knowledge of the companies they supervise are critical in guiding supervisors' assessments. If KPIs reveal a potential problem, further investigation may be warranted to understand the situation better. For example, supervisors could look into the corporate or organisational culture, or governance issues. By obtaining additional information, both quantitative and qualitative information, initial findings from the KPIs can be validated. Further steps supervisors could undertake include:

- Engage with the insurer to gain a deeper understanding from their perspective on their business decisions, such as assumptions in setting the premium.

- Conduct other types of inquiries.

    - Product approval review: Reviewing product development information provided by the insurer at this approval stage.

    - Mystery shopping: Supervisors can purchase products to better understand the customer journey, the quality of advice and the administrative processes firsthand.

    - Onsite inspection: Understanding processes and verifying some claims or enrolment documents helps the supervisor understand if good standards are followed.

  - Feedback from intermediaries and insureds: Hearing from end-clients and intermediaries can confirm what supervisors infer from the KPIs, while providing depth to the quantitative analysis. Analysing the nature of complaints and queries can provide useful information in this regard.

- Studying the profile and needs of consumers via demand research can also help assess whether products are appropriate for their needs.

4. AN APPROACH TO COLLECTING, ANALYSING AND USING KPI DATA

This final section recommends an approach to KPI monitoring that balances the collection of meaningful data against the additional strain on resources and compliance cost. A good approach that considers both the cost and benefits of data monitoring helps ensure that the data collected translates to practical and valuable outcomes for the regulators, industry and end-clients. As elaborated in ICP 9, supervisors may wish to have a documented framework encompassing a supervisory plan based on clear objectives and priorities, which in turn determines the appropriate scope, depth and frequency of the reporting and analyses.

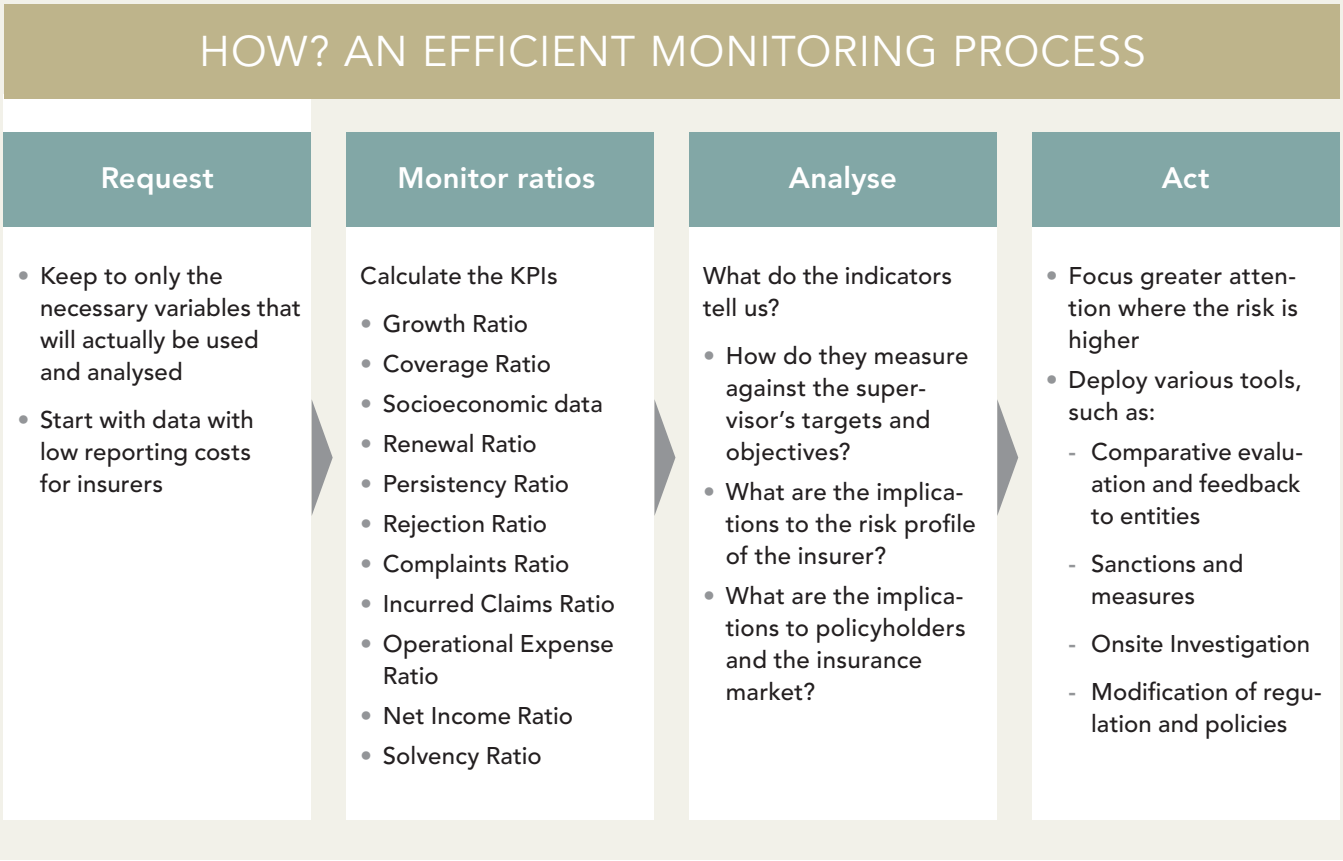

Figure 3: A potential approach for monitoring KPIs

4.1 Data collection

The information requirement should be limited to what will yield meaningful insights and aim to limit reporting costs. Data compilation and submission is a resource-intensive process and especially challenging for specialised II providers that are community-based. Existing data and IT infrastructure may not be optimal to support efficient data compilation. Supervisors may wish to only collect the necessary data that they will use and analyse. There should be no unnecessary duplications, especially if data requests are being sent from more than one contact point in the supervisor. One way of streamlining is to build on processes, templates and data that are already being compiled by insurers. Requirements can also be phased such that the complexity increases with time, as this provides time for insurers to set up the processes to extract and submit the information.

There a number of ways supervisors can select and structure the data to enable more efficient and optimal collection. One is to start by collecting data that have lower reporting costs for insuers. A example would be data that is already being tracked by insurers themselves. Supervisors may leverage information prepared by insurers for internal reporting purposes, as part of the management information system, particularly that related to marketing and to financial position. In contrast, information insurers may not have include:

- Cost structures of II products specifically compared to conventional insurance as such information is usually aggregated by line of business. For example, all personal accident products may have a single standardised operatonal expense charge. Supervisors could therefore consider requiring insurers to segregate key data and KPIs for II reporting purposes.

- Socioeconomic data on vulnerable groups. Many insurers typically do not conduct quantitative, data-driven profiling of target groups. Market research is often limited to broad surveys or engaging distributors. It may be the case however that such data is incidentally collected via other requirements such as Know-Your-Customer rules, assuming that II insurers and products are not exempt from these requirements due to proportionate II requirements.

- Insured population cross-referenced by identification number. In this case, supervisors could play a role by entering into collaboration with the national registry department or agency to enable the national identification and policyholder databases to be combined and cross-referenced. This has been done in some countries. Otherwise, in most cases, the coverage ratio is often an estimation of the actual picture, based on number of policies issued. An additional challenge is also if there is a significant proportion of the population who do not have identification documents.

Definitions of the data collected should be detailed, well thought-through and clearly communicated. Any peculiarities which could have implications on the interpretation of the KPI (such as group policy issuance, mass market products also sold to vulnerable groups) should be reviewed prior to fixing the definitions. This is to minimise resources spent on back-and-forth correspondence between insurers and supervisors, ensure timely submission, and risk of error. Where regulators expect to conduct more complex analyses, it may be more efficient to request for raw and broken down data rather than only aggregate numbers and pre-calculated

ratios. This will enable more consistent calculations that are centralised at the supervisor's end while avoiding the risk of formulae being inconsistently applied. The regulator should be able to see these figures by product and aggregated by distribution channel so that they can conduct analysis by entity and channel for the whole market.

The request for data should be done at a reasonable frequency. The supervisor should avoid overburdening the insurer and the supervisor with overly frequent submissions, but the data should arrive in good time to inform policy decisions or take any necessary action to protect consumers. Data may be collected yearly when the supervisor does not have specific concerns or quarterly if closer, more frequent analysis of a channel or entity is required.

4.2 Data analysis

Supervisors should ensure that the resources and processes are put in place to enable continuous, consistent and high-quality data analysis. Supervision of II should not be done in a tick-box manner. Staff who conduct the II data analysis should be trained to understand the II market peculiarities and apply judgement from the II perspective. Interpreting, and subsequently acting upon, II KPI from traditional insurance lenses may be detrimental to the development of the II market. Supervisory staff should be familiar with best practices and challenges from the II perspective, have examples of good products, claims and client experiences. Analysis of KPIs and other information on II business should be incorporated into the supervisory review processes of the supervisor. Institutionalising the process ensures focus and resources will be formally allocated to monitoring II. This ensures II KPIs are tracked continuously and consistently, and the supervisor builds institutional memory and capacity on II.

The emergence of supervisory technology (SupTech) provides an opportunity for supervisors to improve their data analysis capabilities. SupTech is the use of innovative technology by supervisory agencies to support supervision[16]. By digitising reporting requirements and processes, supervisors can potentially reduce costs and free up staff capacity for more value-added analysis rather than operational tasks. Supervisors could also gain the capacity to collect, extract and analyse richer and more granular information than was feasible before. The use of SupTech is currently still in early stages among relatively few supervisors, and is not without its challenges and risks. Key among them is the cost and resources needed to implement new technology, which would incude training and transforming the role of supervisory staff. However, SupTech might in future be able to radically transform supervision, benefitting both insurers and supervisors alike.

16 See the paper by the Financial Stability Institute "FSI Insights on policy implementation No 9: Innovative technology in financial supervision (suptech) – the experience of early users" (2018)

4.3 Acting upon the analysis

Insights from the II data can guide the setting of policy strategy, regulatory frameworks and supervisory processes. Such insights can help supervisors work towards the outcome of ensuring the provision of high-quality, accessible and valuable II products. It is also an opportunity to address any unintended negative consequences of previous regulatory and policy measures relating to II. When issues are detected, regulators may need to conduct further investigations and take corrective actions or sanctions against some entities. In the same way, these insights also help supervisors review and improve regulatory and policy measures.

Regulators could publish some of their analysis on an aggregated basis in order to convey their observations and expectations. Setting or at least sharing benchmark expected values may help frame discussions with II providers. Publication of analysis results also enables the showcasing of best practice examples and areas of concern where the industry needs to address poor practices. The Colombian regulator, Superintendencia Financiera de Columbia (SFC), publishes on its website a quarterly status of how many complaints were received by each insurer. Insurers keep track of their position as none of them wants to top the complaints ranking.

CONCLUSION

KPIs are a powerful tool that can help supervisors read the II market, conduct effective risk-based supervision and anticipate future trends. However, it is important that supervisors do not go down the path of fixating on achieving targets for their own sake or merely ticking off boxes. Supervisors may wish to consider longer-term market growth; different outcomes may take different amounts of time to take effect, and supervisors should interpret KPIs against this context. KPIs should also never be viewed or acted on in isolation. Supervisory judgement, experience and knowledge of the companies they supervise are critical. In most cases, KPIs are merely the first step towards further investigation and taking action. Ultimately, KPIs support and enhance, rather than replace, supervisory judgement.

ANNEX: LIST OF KPI FORMULAE

No.	KPI	Formula / Description
1	**Growth ratio**	• (Number of insured in period N – Number of insured in period N-1) / Number of insured in period N-1 • (Written premium in period N – Written premium in period N-1) / Written premium in period N-1
2	**Coverage ratio**	Insured population / Target population
3	**Socioeconomic data of the target group**	Income level, occupation, age, gender, household size and characteristics, education and others
4	**Renewal ratio**	Number of renewed policies in period N / Number of policies eligible for renewal at the end of period N-1
5	**Persistency ratio**	Number of policies insured at the end of period N / (Number of policies insured at the end of period N-1 – number of policies that claimed over period N, if the policy terminates upon claim)
6	**Rejection ratio**	Number of claims rejected / Number of claims in the sample
7	**Complaints ratio**	Number of complaints / Number of in-force policies or claims
8	**Incurred claims ratio**	Incurred claims / earned premiums
9	**Combined ratio**	(Incurred claims + Incurred expenses) / Earned premiums
10	**Operational expense ratio**	Incurred expenses / Earned premiums
11	**Net income ratio**	Net income / Earned premiums
12	**Solvency margin**	Surplus of assets over liabilities, with a view towards ensuring that the insurer is able to meet its obligations to policyholders when they fall due

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