
Recent Insurance and Takaful Coverage for Diabetics in Malaysia: A Review

Junaidah Abu Seman*

Faculty of Economics and Muamalat, Universiti Sains Islam
Malaysia

Aimi Fadzirul Kamarubahrin

Faculty of Economics and Muamalat, Universiti Sains Islam
Malaysia

Azrul Azlan Iskandar Mirza

Faculty of Economics and Muamalat, Universiti Sains Islam
Malaysia

Nurul Aini Muhamed

Faculty of Economics and Muamalat, Universiti Sains Islam
Malaysia

Zurina Kefeli @ Zulkefli

Faculty of Economics and Muamalat, Universiti Sains Islam
Malaysia

Mohd Radzniwan A Rashid

Faculty of Medicine and Health Science, Universiti Sains Islam
Malaysia

Sharifah Fairuz Syed Muhamad

Faculty of Science and Technology, Universiti Sains Islam
Malaysia

Saharuddin Ahmad

Universiti Kebangsaan Malaysia Medical Centre,
Universiti Kebangsaan Malaysia

*Corresponding author: junaidah@usim.edu.my ✉

Abstract:

This paper reviews the recent insurance and takaful coverage for diabetics in Malaysia. Also, this study reported insurance and takaful operators offer diabetes plan available in the market. A comprehensive review of the insurance and takaful literature was conducted and content comparisons based on research focus and context were evaluated. It was found that only three insurance companies in Malaysia offer protection plans for diabetics while no takaful operator offers the coverage. Diabetes protection plan for the low-income group is proposed to be covered under the micro-insurance or micro-takaful, with a sum covered between RM10,000 to RM100,000

and low monthly contribution. Furthermore, as this paper concentrates on insurance and takaful coverage for diabetes protection in Malaysia, the possibility that other relevant works do appear elsewhere in a different platform is not denied. The paper will be useful to researchers, professionals and others concerned with micro-insurance or micro-takaful products to understand the importance of diabetes plan. Other than revealing ambiguities, gaps and contradictions in the literature, this paper provides information and guidance for other researchers wishing to embark on research on insurance and takaful diabetes coverage protection.

Keywords: Insurance, Takaful, Micro-takaful, Diabetes, Protection

INTRODUCTION

There is no standard definition of financial inclusion due to the geographical location of the area and the situation in which the term is applied (Chinoda&Mashamba, 2021). In a simple definition, financial inclusion means the provision of financial services at reasonable and affordable cost (Ansari & Bahari, 2021). To promote financial inclusion, information about the types of financial services involved is crucial. Previous studies on financial inclusion are more concentrating on savings and credits (see, for example, Bharadwaj, Prashant & Suri, 2020; Ouma, Odongo & Were, 2017; Ghosh, 2012; Honohan & King, 2009; Beck & Torre, 2007; Qian & Strahan, 2007; Strahan, 1999). Only a few of them discuss the other financial services which are banking transactions and insurance (e.g., Heydenrych& Luiz, 2018; Prathap, 2011; Beck, Demirguc-kunt, & Martinez Peria, 2006). In considering which financial services considered essential, the World Bank (2021) has outlined four main types of services that individuals in society should have access - banking transactions, savings, credit, as well as insurance. These four key financial services have been confirmed and further explained by studies carried out since the past ten years by FSA (2000) and European Commission (2008).

Insurance exclusion was seen as a widespread and serious problem for those who could not afford it due to their income, health status, location or other reasons (Kempson et al., 2000; Chant Link and Associates, 2004; Carbo, Gardener, & Molyneux, 2007; Heydenrych & Luiz, 2018). Based on prior studies in 2000 in the UK, the numbers of households without particular types of insurance are relatively higher. Kempson et al., (2000) indicate that 26 percent of them did not have home contents insurance, 87 percent did not have mortgage payment protection insurance (MPPI), 91 percent had not taken out medical insurance, and 93 percent did not have personal accident insurance. While in the case of Australia, home and contents insurance and motor vehicle third party property insurance are less accessed. For instance, there were 17percent of people who owned their own homes, lacking building insurance, and 17percent lacked contents

insurance, suggesting a large group of consumers who potentially needed insurance, and who lacked any cover (Chant Link and Associates, 2004).

On a different note, the discussions on financial inclusion through takaful is relatively new (e.g., Trokic, 2017; Ardo & Saiti, 2017; Ansari & Bahari, 2021). Simply put, takaful is an Islamic version of insurance. The word takaful means to guarantee, which derives from the Arabic root word *kafalah*. Takaful basically is a cooperative insurance whereby members who face the same risk or danger of incurring losses willingly contribute a certain sum of money which will be used to compensate those members of the group who incur such loss (Alhabshi, et al., 2012).

The takaful market has been witnessing steady growth over the past few years (Husin et al., 2017). Globally, the takaful market has reached a value of USD23.5 billion in 2020 (Alshater et al., 2021). The market is projected to grow at a CAGR of nearly 13% in the forecast period of 2021–2026. It can be observed that the market is estimated to reach a value of about USD49 billion by 2025 (Global Takaful Market, n.d.). The Gulf Cooperation Council (GCC), Southeast Asia, and Africa, among others, are the leading regions in the industry, with the GCC accounting for the largest market share.

Currently, Muslim's account for a fifth of the total global population, which is further projected to increase in the future, thus, propelling the industry globally. One of the major factors in improving market penetration is growing product awareness, as a majority of the Muslim population lacks protection due to a lack of information about the wide range of solutions provided by the takaful market (Global Takaful Market, n.d.).

With the development of a comprehensive legal and regulatory framework for the takaful market that aims to facilitate its operations and governance, this sector continues to develop more quickly as compared to its counterpart (Nasir et al., 2021). The element of digitalisation has empowered the industry's prospects. Further, the promotion of product customisation schemes in the takaful sector with the introduction of new products in accordance with the changing consumer demands is expected to aid the industry growth over the forecast period (Global Takaful Market, n.d.).

This paper revisits research conducted in the area of insurance and takaful coverage for diabetes protection in Malaysia. This study also provides an extensive review on current insurance and Takaful operators offered diabetes plan available in the market. The review aims to synthesise current diabetes protection coverage to explore and identify what actually scheme was offered. The paper is structured as follows. It starts by providing an overview of diabetes, and explanation of medical and health insurance/takaful industry in Malaysia. Furthermore, followed by a deliberation of the methodology and approach adopted in this review paper.

Next, the content analysis and segmentation of micro-insurance and micro-takaful are presented and discussed. Finally, conclusion section was discussed.

LITERATURE REVIEW

Medical and Health Insurance/Takaful Industry in Malaysia

Medical and health insurance (MHI) in Malaysia started in the early 1970s with the major industry players being foreign-based insurers, for example American International Assurance, AETNA, and Prudential. By 1999, Malaysians were found to be spending a substantial amount of their income on health costs. Although the government provides and subsidises the public healthcare cost, the insurance/takaful industry is expected to play a complementary role in providing this service to meet the diverse needs of the increasing population and very sophisticated market (Abdul Rahman & Mohd Daud, 2010).

According to an assessment made by the Central Bank of Malaysia (BNM) in 1999, the regulatory body for the insurance and takaful industry reported that the MHI or medical and health takaful (MHT) businesses has become the emerging trend for the future and an important sector of the insurance and takaful industry as there is a potential for market growth (Abdul Rahman & Mohd Daud, 2010). Key drivers to the projected growth mentioned by BNM (Insurance Annual Report, 2009) are as follows:

- i. Rising health care costs;
- ii. Ageing population requiring high medical costs;
- iii. Malaysians aged 55 and above are expected to increase to 14% in 2020 from the current 9%;
- iv. Improvement in mortality for both males and females; currently, 70 and 75, respectively, to increase to 75 and 79, respectively, in the year 2020;
- v. Breakdown of extended family structure; caring family values expected and advocated by the government for the old-aged parents may change in the near future;
- vi. Healthcare as an employment benefit is fast becoming an incentive offered by employers to ensure employee loyalty and retention; and
- vii. Personal income tax exemption of up to RM3,000 for MHI or MHT policy purchases.

Furthermore, based on statistics from the World Health Organization (2021), the per capita expenditure for healthcare in Malaysia increased by USD272 from USD155 in 2004 to USD427 in 2018, growing at an average annual rate of 7.99%. However, the percentage of expenditure on healthcare in the public health system has experienced a decrease of 3.8%, from 59% in 2009 to 55.2% in 2011. In contrast, the percentage of total expenditure on healthcare in the private sector health system is on the rise, up 3.8% from 41% in 2009 to 44.8% in 2011. This shows that society

is increasingly dependent on the personal health system instead of the public health system. One of the factors which contribute to this situation is the public health system requires longer waiting periods for receiving treatment. Modern society nowadays is concerned with healthcare and realises that the possibility to regain health is higher if they can receive early treatment as soon as possible. Therefore, the probability of death can be reduced. This is in line with the statement by Senior Consultant Paediatrician & Paediatric Haematologist and Oncologist, Dr. HishamshahMohd Ibrahim who mentioned that the earlier cancer patients receive treatment, the higher the chances of recovery (Awang et al., 2015).

As an alternative, the public could choose the private health system to seek the best possible treatment although the cost of private healthcare is higher. Indeed, the high costs of medical treatment have become a burden on society, especially for the lower-income group. This situation became worse when the Ministry of Health allowed an increase in private healthcare medical charges by 14.4% in 2014 (The Star, 2014). In order to reduce the burden to finance medical expenses, the public is advised to get medical and health insurance/takaful to pay for medical expenses.

In Malaysia specifically, there are several Insurance and Takaful operators that offer MHT/MHI. Apart from hospitalisation and surgical insurance, critical illness insurance is also considered as one of the main concerns of modern living healthcare. Currently, there are 39 to 45 critical illnesses covered by the insurance companies and Takaful operators. Table 1 illustrates the most popular medical health insurance schemes offered by Takaful operators and insurance companies in Malaysia. The medical and health Takaful schemes offer the cheapest package amounting to RM1,200 per year with a lifetime limit of RM650,000 based on the comparison between Takaful operators and insurance companies. However, the extremely expensive one-year premium payments charged by the insurance companies are not affordable for poor people despite the lifetime coverage provided (Salleh et al., 2018).

Diabetes at A Glance

Diabetes is a serious, long-term disease that has a significant influence on the lives and well-being of people all over the world. In 2019, it affected about 500 million individuals worldwide. The prevalence of diabetes has risen dramatically in recent decades. It is notable that diabetes is separated into a few kinds; Type 1 diabetes (due to β -cell annihilation, normally prompting outright insulin insufficiency), Type 2 diabetes (because of a reformist insulin secretory imperfection on the foundation of insulin obstruction), gestational diabetes mellitus (GDM) (diabetes analysed in the second or third trimester of pregnancy that isn't unmistakably obvious diabetes) and explicit kinds of diabetes because of different causes, for example monogenic diabetes conditions (for example, neonatal diabetes

and Maturity-Onset Diabetes of the Young [MODY]), sicknesses of the exocrine pancreas (like cystic fibrosis), and medication or substance incited diabetes, (for example, in the therapy of HIV/AIDS or after organ transplantation).

A new report announced that simply under a large portion of a billion group are living with diabetes worldwide and the number is projected to increment by 25% in 2030 and 51% in 2045 (Saeedi et al., 2019). As indicated by the Malaysia National Health and Morbidity Survey (NHMS) in 2015, 17.5% of the Malaysian populace, or an expected 3.5 million grown-ups, experienced diabetes and the number expanded to 17.5% in 2019 (IPH,

Table 1: Comparison table of medical health insurance/takaful coverage

Takaful Operators/ Insurance Companies	Takaful Operators (TO)				Insurance Companies (IC)			
	TOA	TOB	ICA	ICB	ICC	ICD	ICE	ICF
Annual premium (RM)	1,200	1,800	3,920	3,000	3,400	3,600	5,100	1,462
Rider/ Standalone	Rider	Standalone	Rider	Rider	Rider	Rider	Rider	Standalone
Death & TPD (RM)	0	0	19,000	130,000	12,000	10,000	10,000	0
Annual limit (RM)	No limit	10,000 (annually subject to benefits covered)	1.5 million	1.2 million	1.6 million	No limit	No limit	No limit; per disability limit of 650,000
Lifetime limit (RM)	650,000 (overall)	No limit	No limit	No limit	No limit	1.65 million	No limit	No limit

Source: Salleh et al. (2018)

2019). According to the National Diabetic Registry, 875,278 diabetes patients were consistently seeking treatment at selected Ministry of Health (MOH) wellness centres and medical clinics. Furthermore, in view of the International Diabetes Federation Diabetes Atlas 2015, Malaysia has become the main country as far as diabetes predominance (16.6%) in the Western-Pacific locale barring the Pacific Island nations. Indeed, Malaysia has outperformed the adjoining nations like Singapore (12.8%), Indonesia (6.2%), the Philippines (6.1%), and Thailand (8.0%) (IDF, 2017).

With respect to labour, late information detailed that Ministry of Health Malaysia utilized 5,314 clinical trained professionals, 24,253 clinical officials, 7,987 drug store officials, 160 clinical restoration officials (physiotherapy), 169 imaging officials (X-beam specialists), 2,493 X-beam experts (demonstrative), 249 X-beam professionals (treatment), 65,117 attendants, 13,986 aide clinical officials, 4,101 collaborator drug store officials, and 1,383 physiotherapists (CodeBlue, 2019). These figures mirror the significant expense brought about for ideal diabetes the executives.

Numerous examinations have demonstrated that the personal satisfaction of individuals with diabetes is poor contrasted with the ordinary populace (Schram et al., 2009; Polonsky, 2002). There are numerous explanations behind this. For example, they are overburdened with the day-by-day bothers of infection the executives prompting feeling overpowered, baffled, or 'wore out' by the ceaseless, regularly troublesome self-care requests (Polonsky, 2002). Another factor is the entanglements of diabetes in particular its impacts on the eyes, cerebrum, kidneys, heart, sensory system, and others. These have been explored and announced in numerous examinations recommending that the presence of complexities influences their personal satisfaction (Donald et al., 2003). In addition to the fact that they affect the patients genuinely and intellectually, yet the confusions emerging from diabetes additionally influence them monetarily. In the UK, treatment of the infection and its confusions takes up 4–5% of the all-out UK medical services consumption. The main supporters of the expenses of diabetes are those of treating complexities like eye and appendage illness, coronary illness, neuropathy, and nephropathy (Leese, 1992).

Complexities of diabetes range from intense, dangerous conditions, for example, serious hypoglycaemia or ketoacidosis to ongoing, incapacitating difficulties influencing different organ frameworks, like retinopathy, nephropathy, neuropathy, and cardiovascular illness. The advancement of inconveniences requires around a long time from the beginning of ailment in type 2 diabetes. Be that as it may, in type 2 diabetes inconveniences can emerge from the beginning of the actual sickness (Nickerson and Dutta, 2012). There is a likely future number of diabetes cases in individuals younger than 20. At current rates, the quantity of

individuals younger than 20 with type 2 diabetes could increment by up to 49% by 2050. In the event that the paces of occurrence increment, the quantity of type 2 cases in youth could fourfold (Giuseppina et al., 2012).

This is because of the progressions in way of life which has gotten modernized and westernized. Food is becoming undesirable with eats less high in soaked fat and sugar. What's more, the absence of actual work and expanded pervasiveness of tobacco smoking are normal. These ways of life represent more than 66% of new NCD cases and increment the danger of intensifications in the individuals who as of now have these illnesses (Beaglehole et al., 2011). The mushrooming of contraptions alongside the improvement in innovation has made life simpler henceforth even moderate actual work is presently not needed during work hours. The gigantic number of TV projects and films which can be seen anyplace likewise deters individuals from moving about. This quickly rising pattern can likewise be ascribed to maturing and obesogenic conditions. A couple of studies have shown a connection between utilizing high innovation contraptions with inactive ways of life among youth and youngsters (Roberts et al., 2017).

Studies have announced that the therapy of diabetes is turning out to be extravagant as it requires serious treatment and exorbitant examination. For instance, Mustapha et al. (2017) detailed that the expense of patient follow-up was assessed at RM459 each year. The expense of difficulties was RM42,362 per patient each year for nephropathy, RM4,817 for myocardial dead tissue, RM5,345 for stroke, RM3,880 for cardiovascular breakdown, RM5,519 for foot removal, RM479 for retinopathy, and RM4,812 for waterfall extraction (Mustapha et al., 2017). This is a worldwide pattern as because of upgrades in innovation and the utilization of further developed instruments, the examination of diabetes has gotten more complex. The utilization of these gadgets allows early recognition of intricacies hence permitting early mediation and treatment. Incidentally, it adds a higher monetary and mental weight on the patients.

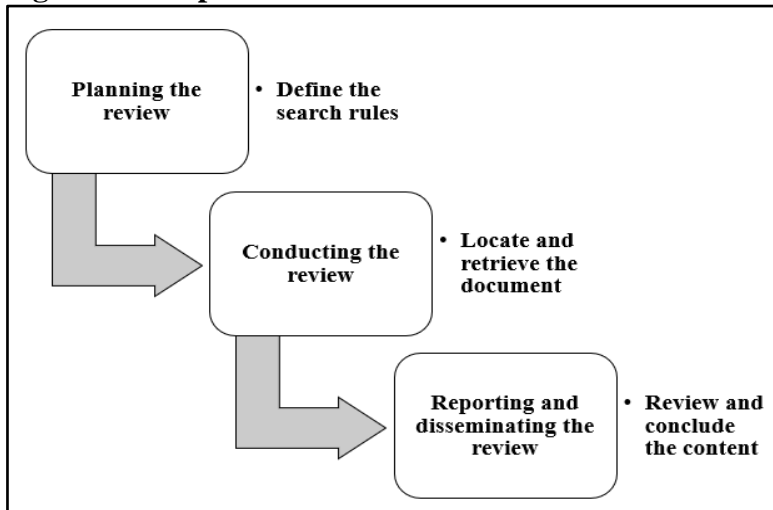
With the increasing expenses of medical services and explicitly those identified with diabetes, it very well might be an ideal opportunity to investigate different conceivable outcomes to decrease the monetary weight. It has hence gone to the consideration of protection and takaful organizations to think of explicit items that can oblige the unique gathering of individuals living with diabetes sooner rather than later.

RESEARCH METHODS

This study employs a three-step process of review by Transfield et al. (2003) as shown in Figure 1. The review process starts with an

identification of keywords. The first keyword is 'diabetes protection in Malaysia' while the second set of keywords comprises 'insurance and Takaful coverage'. For the articles to be selected, the articles' title, keywords or abstract must include a combination of the two chosen keywords. All relevant and identified articles published in Malaysia were included only if these two inclusion criteria were fulfilled.

Figure 1: The process of review



Source: Tranfield et al. (2003)

Firstly, in the selection process, only articles provided by the insurance or Takaful operators in the web site were selected, to ensure the reliability of the sources. An initial search in the web site using 'diabetes protection in Malaysia' and 'insurance and Takaful coverage' as keywords resulted 192 related articles. The search results were further examined to check for redundancy, thus leaving 50 articles for further analysis. Secondly, following Tranfield et al. (2003), articles were skimmed further to ensure their relevancy. Subsequently, 39 articles were omitted for further analysis due to the fact that the articles primarily focussed on diabetes issues and made no reference to insurance and takaful coverage protection. As such, only the remaining 11 articles were used for analysis. Other than distinguishing content, this paper also presents the insurance and takaful operators that offer diabetes protection plan, which include sum coverage and entrance age with specific focus on certain group of people.

RESULTS

As far as the statistics of people with diabetes are concerned, it is perhaps

surprising that very little is known about the stand-alone insurance and takaful products for diabetics in the market. With regards to the products or plans for diabetics per se, there is no stand-alone policy offered by any takaful operators in Malaysia. However, there are three insurance companies offering plans that are tailored for people with diabetes which are MSIG Malaysia, Prudential Assurance Malaysia Berhad and Allianz Insurance Malaysia Berhad. Compared with other insurance stand-alone products for diabetics in other Asian countries, there are a few insurance providers offer the product so far, which are in Singapore and Indonesia. The plans cover either pre-diabetics, type 1 diabetic, type 2 diabetes or combinations of the types. All the plans come with their own features and coverage-related diabetes. Most of the other countries also offer insurance products for diabetics, however the information provided is very much lacking to infer comparison between those products especially on the coverage and exclusions made for the policy. Table 2 shows examples of the insurance companies and the features of stand-alone insurance products for diabetics in Malaysia, Singapore, Oman and USA.

Table 2: Stand-alone insurance products for prediabetic and diabetics patients

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/ Sources
Malaysia					
MSIG Malaysia	Pre-diabetes and Type 2 diabetes	The policy has 4 plans covering the following benefits: <ul style="list-style-type: none"> ● Hospital Room and Board (per day), up to 150 days. ● Intensive Care Unit, up to 30 days. ● Surgical Fees. ● Anesthetist Fee. ● Operating Theatre. ● Hospital Supplies & Services. ● In-Hospital Physician Visit, up to 150 days. ● Pre-Hospital Specialist. ● Consultation/Diagnostic Tests- within 30 or 60 days (depending on selected plan) prior to admission. ● Post-Hospitalization Treatment 	<ul style="list-style-type: none"> ● Pre-existing illnesses, except for any conditions, illness or complication arising directly or indirectly from Type 2 Diabetes Mellitus or Pre-Diabetes which was declared and the Company has agreed not to exclude it. ● Specified Illnesses occurring during the first 120 days of continuous cover. ● Any medical or physical conditions arising within the first 30 days of the Insured Person's cover or date reinstatement whichever is latest except for accidental injuries. ● Plastic/cosmetic surgery, circumcision or any surgery on the foreskin, eye examination and 	<ul style="list-style-type: none"> ● 18 ● 60-80 (renewal only) 	https://www.msig.com.my/personal-insurance/products/gluco-safeguard/

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/Sources
		<p>up to 60 or 90 days (depending on selected plan) following discharge from hospital.</p> <ul style="list-style-type: none"> ● Ambulance Fees. ● Day Surgery. ● Home Nursing following Hospitalization up to 26 weeks following discharge from hospital. ● Emergency Accidental Outpatient Treatment within 24 hours following an accident and follow-up treatment up to 60 or 90 days (depending on selected plan). ● Emergency Accidental Dental Cover within 24 hours following an accident and follow up treatment up to 14 days. 	<p>surgical correction for visual impairment due to nearsightedness, farsightedness, astigmatism or presbyopia or radial keratotomy or Lasik, glasses, multifocal lens or contact lens, the use or acquisition of orthosis, external prosthetic appliances or devices including but not limited to artificial limbs, external fixator, hearing aids, cochlear apparatus or implant, pacemakers, implantable cardiac defibrillator (ICD).</p> <ul style="list-style-type: none"> ● Dental conditions including dental treatment or oral surgery except as necessitated by Accidental Injuries to sound natural teeth occurring wholly during the Period of Insurance. ● Private nursing care, non-Hospital 		

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/ Sources
		<ul style="list-style-type: none"> ● Second Surgical Opinion (Local only) within 30 or 60 days (depending on selected plan) prior to admission. ● Accidental Outpatient Alternative Medical Treatment and follow-up treatment up to 14 days from date of accident provided the first received treatment is at a registered hospital or clinic registered with the Ministry of Health within 24 hours following the accident. ● Medical report Fees up to RM100 (per claim). ● Daily Cash Allowance at Government Hospital, up to 150 days. ● Nutritional Allowance, RM500 per admission and up to 	<p>nursing care, rest cures, sanatoria care, hospice care and care or treatment that do not lead to a recovery, conservation of the Insured Person's condition or restoration to his/her previous state of health, injury or hospitalization due to drug abuse, addictive disorders from substance misuse or while under the influence of alcohol, venereal disease and its sequelae, AIDS (Acquired Immune Deficiency Syndrome) or ARC (AIDS Related Complex) and HIV related diseases, and any communicable diseases required quarantine by law.</p> <ul style="list-style-type: none"> ● Any treatment or surgical operation for congenital abnormalities or deformities including hereditary and 		

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/Sources
		<p>RM2,000 per annum.14.</p> <ul style="list-style-type: none"> ● Compassionate Care Allowance, RM50 daily up to RM1,500 per annum. ● Organ Transplant. ● Outpatient Kidney Dialysis, Cancer and Stroke Treatments. <p>Additional benefits: Digital diabetes management</p>	<p>developmental conditions.</p> <ul style="list-style-type: none"> ● Pregnancy, childbirth (including surgical delivery), miscarriage, abortion and prenatal or postnatal care and surgical, mechanical or chemical contraceptive methods of birth control or treatment pertaining to infertility, erectile dysfunction and tests or treatment related to impotence or sterilization. ● Hospitalization or consultation primarily for investigation purposes, screening, diagnosis, X-rays, scans, general physical or medical examinations that are done routinely or are not incidental to treatment or diagnosis of a covered medical condition, treatment or investigation of a medical condition which is not Medically Necessary to be 		

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/ Sources
			<p>hospitalized, preventive treatments, preventive medicines, treatments specifically for weight reduction or gain or bariatric surgery and treatment of an experimental, investigational or research nature.</p> <ul style="list-style-type: none"> ● Suicide, attempted suicide or intentionally self-inflicted injury while sane or insane. ● War or any act of war, declared or undeclared, criminal or terrorist activities, active duty in any armed forces, direct participation in strikes, riots and civil commotion or insurrection. ● Investigation and treatment of sleep and snoring disorders, hyperhidrosis, hormone replacement therapy, stem cell therapy except hematopoietic blood disorders, alternative 		

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/Sources
			<p>treatments such as chiropractic services, acupuncture, acupressure, reflexology, bone-setting, hyperbaric oxygen therapy, herbalist treatment, podiatry treatment, massage or aroma therapy or other alternative medicines (except as defined under Accidental Outpatient Alternative Medical Treatment Benefit).</p> <ul style="list-style-type: none"> ● Psychotic, mental or nervous disorders (including any neuroses and their physiological or psychosomatic manifestations). ● Costs/expenses of services of a non-medical nature, such as but not limited to television, telephones, broadband services, electricity charges, admission/registration/record fee, admission kit/pack, laundry, film or 		

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/ Sources
			<p>digital storage medium, dietetic or nutritional consultation or treatment, patient education and other ineligible non-medical items.</p> <ul style="list-style-type: none"> ● Sickness or Injury arising from racing of any kind (except foot racing), hazardous sports such as but not limited to water skiing, underwater activities requiring breathing apparatus, winter sports, professional sports and Illegal Activities. For the avoidance of doubt, Illegal Activities mean any act committed by the Insured Person which is in violation of law or forbidden by law. <p>Note: This list is non-exhaustive. Refer to the policy contract for the full list of exclusions under the policy.</p>		

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/Sources
Prudential Assurance Malaysia Berhad	Type 2 diabetes	<ul style="list-style-type: none"> ● Death & TPD ● Critical Illnesses. Among the conditions covered are kidney failure, blindness, stroke and cancer. ● Medical (High Deductible) 	Not Available	Not Available	https://www.prudential.com.my/en/product-s-health/medical/specific-benefits/prumy-diabetes-care/

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/Sources
Allianz Insurance Malaysia Berhad	Type 2 diabetes	The policy has 4 plans covering the following benefits: a) Hospitalization & Surgical Benefit <ul style="list-style-type: none"> ● Hospital Room and Board (per day), up to 150 days. ● Intensive Care Unit, up to 150 days per confinement. ● Surgical Fees. ● Anesthetist Fee. ● Operating Theatre. ● Hospital Supplies & Services. ● In-Hospital Physician Visit, (subject to a maximum of two (2) visits per day) ● Pre-Hospitalization Diagnostic Tests (within ninety (90) days prior to Hospitalization) - 	<ul style="list-style-type: none"> ● Pre-existing Conditions, except for any condition or illness, complication or ailment arising or connected to the condition of Type 2 Diabetes Mellitus or Impaired Fasting Glucose (IFG) or Impaired Glucose Tolerance (IGT) or Hypertension, if declared. Otherwise, they will be treated as Pre-existing Conditions or non-disclosure. ● Specified Illnesses occurring during the first one hundred and twenty (120) days of continuous cover, whether or not caused by Accident. ● Any medical or physical conditions arising during the Waiting Period except for Accidental Injuries. ● Surgery and/ or treatment related to plastic/ cosmetic purposes, 	<ul style="list-style-type: none"> ● 30 ● 66-70 (renewal only) 	https://www.allianz.com.my/allianz-diabetic-essential

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/Sources
		<p>maximum of two (2) General Practitioner and one (1) Specialist consultations)</p> <ul style="list-style-type: none"> ● Post-Hospitalization Treatment up to 60 or 90 days (depending on selected plan) following discharge from hospital. ● Ambulance Fees. ● Day Surgery. ● Home Nursing Care (subject to a maximum of one hundred and eighty (180) days per lifetime) ● Medical Report Fees Reimbursement <p>b) Out-Patient Treatment Benefits</p> <ul style="list-style-type: none"> ● Emergency Accidental 	<p>circumcision, eye examination, glasses and refraction or surgical correction of nearsightedness (Radial Keratotomy or Lasik) and the use or acquisition of external prosthetic, external appliances or corrective devices such as artificial limbs, hearing aids, pacemakers and prescriptions thereof.</p> <ul style="list-style-type: none"> ● Dental conditions including dental treatment or oral surgery except as necessitated by Accidental Injuries to sound natural teeth occurring wholly during the period of cover. ● Private nursing, rest cures or sanatoria care, illegal drugs, intoxication, sterilization, venereal disease and its sequelae, AIDS (Acquired Immune Deficiency Syndrome) or ARC (AIDS Related 		

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/ Sources
		<p>Outpatient Treatment & thirty (30) days follow up treatment (Annual Limit).</p> <ul style="list-style-type: none"> ● Out-Patient Cancer Treatment (includes consultation, examination tests and prescribed take-home drugs). ● Out-Patient Kidney Dialysis Treatment (includes consultation, examination tests and prescribed take-home drugs). ● Out-Patient Dengue or Enteric Fever Treatment (includes consultation, examination tests and prescribed take-home drugs) 	<p>Complex) and HIV related diseases, and any communicable diseases requiring quarantine by law.</p> <ul style="list-style-type: none"> ● Any treatment or surgical operation for Congenital Conditions or deformities including hereditary conditions. ● Pregnancy, child birth (including surgical delivery), miscarriage, abortion and prenatal or postnatal care and surgical, mechanical or chemical contraceptive methods of birth control or treatment pertaining to infertility. Erectile dysfunction and tests or treatment related to impotence or sterilization. ● Hospitalization primarily for investigatory purposes, diagnosis, X-ray examination, general physical or medical examinations, not 		

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/ Sources
		<p>c) Special Benefits</p> <ul style="list-style-type: none"> ● Second Medical Opinion ● Reimbursement for Alternative Treatment fees (post Hospitalization Out-Patient benefit, within thirty (30) days following discharge from Hospital). <p>d) Diabetes Management Benefits</p> <ul style="list-style-type: none"> ● Health Screening Benefit ● Medical Examination by a doctor ● Glycated Hemoglobin (HbA1c) ● Urine FEME ● Renal Function Test ● Lipid Profile 	<p>incidental to treatment or diagnosis of a covered Disability or any treatment which is not Medically Necessary and any preventive treatments, preventive medicines or examinations carried out by a Physician, and treatments specifically for weight reduction or gain.</p> <ul style="list-style-type: none"> ● Suicide, attempted suicide or intentionally self-inflicted injury while sane or insane. ● War or any act of war, declared or undeclared, criminal or terrorist activities, active duty in any armed forces, direct participation in strikes, riots and civil commotion or insurrection. ● Ionizing radiation or contamination by radioactivity from any nuclear 		

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/ Sources
		<ul style="list-style-type: none"> ● Premium Discount 	<p>fuel or nuclear waste from process of nuclear fission or from any nuclear weapons material.</p> <ul style="list-style-type: none"> ● Expenses incurred for donation of any body organ by the Life Assured and costs of acquisition of the organ including all costs incurred by the donor during organ transplant and its complications. ● Investigation and treatment of sleep and snoring disorders, hormone replacement therapy and alternative therapy (other than the Alternative Treatment specified in Reimbursement for Alternative Treatment Fees provisions) such as treatment, medical service or supplies, including but not limited to acupressure, reflexology, bone setting, herbalist treatment, massage 		

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/Sources
			<p>or aroma therapy or other alternative treatment.</p> <ul style="list-style-type: none"> ● Care or treatment for which payment is not required or to the extent which is payable by any other insurance or indemnity covering the Life Assured and Disabilities arising out of duties of employment or profession that is covered under a Workman's Compensation Insurance Contract. ● Psychotic, psychiatric, mental or nervous disorders, (including any neuroses and their physiological or psychosomatic manifestations). ● Costs/expenses of services of a non-medical nature, such as television, telephones, telex services, radios or similar facilities, admission kit/pack and other ineligible nonmedical items. 		

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/Sources
			<ul style="list-style-type: none"> ● Sickness or Injury arising from racing of any kind (except foot racing), hazardous sports such as but not limited to skydiving, water skiing, underwater activities requiring breathing apparatus, winter sports, professional sports and illegal activities. ● Private flying other than in any commercial scheduled airlines licensed to carry passengers over established routes. ● Expenses incurred for sex changes. <p>The exclusions highlighted here are not exhaustive. Full details of exclusions are available in the policy document.</p>		
Singapore					

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/Sources
AIA Singapore Private Limited	Pre-diabetes and Type 2 diabetes	<ul style="list-style-type: none"> ● Guaranteed coverage for 5 key diabetes-related conditions (Blindness, coronary artery bypass surgery, heart attack, stroke and kidney failure. ● Add-on protection with Cancer Cover <p>Additional benefits: Every time clients get active, eat well, and complete health checks, they will also earn AIA Vitality points. The more points they earn, the more they can boost their AIA Vitality status to enjoy partner benefits and unlock rewards that include up to 15% discount on their insurance premiums.</p>	Not Available	Not Available	https://www.aia.com.sg/en/our-products/critical-illness-protection/aia-diabetes-care.html

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/Sources
Oman					
Oman Insurance Company	Type 2 Diabetes	<ul style="list-style-type: none"> ● Critical Illness Cover 100% sum assured will be paid on diagnosis of the below critical illnesses: <ul style="list-style-type: none"> ○ Blindness, Coronary artery by-pass surgery, Heart attack, Kidney failure, Stroke and Paralysis. ● Death Cover AED 10,000 will be paid in case of demise of the insured member. ● Repatriation Cover AED 5,000 will be paid in case of demise of the insured member. ● Cancer Cover (Optional) 100% sum assured will be paid on diagnosis. 	Not Available	Not Available	https://www.omaninsurance.ae/individuals/life-insurance/life-insurance-plans/diabetic-care

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/Sources
USA					
<i>A. Diabetes-Friendly Life Insurance Companies (no examination)</i>					
Mutual of Omaha	Type 1 and Type 2 diabetes	Not Available	Not Available	Minimum age of diagnosis: 50 Maximum face value \$250,000	Greenberg (2021)
Assurity Life Insurance Company	Controlled Type 2 diabetes	Not Available	Not Available	Minimum age of diagnosis: 20 Maximum face value \$50,000	
American National Life	Controlled Type 2	Not Available	Not Available	Minimum age of diagnosis: 50	

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/Sources
Insurance	diabetes			Maximum face value \$250,000	
5- Star Life Insurance Company	Type 1 and Type 2 diabetes	Not Available	Not Available	Minimum age of diagnosis: N/A. Maximum face value \$100,000	
Sagicor Life Insurance Company	Controlled Type 2 diabetes (no insulin)	Not Available	Not Available	Minimum age of diagnosis: 50. Maximum face value \$500,000	

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/Sources
Nassau Life Insurance Company	Type 1 and Type 2 diabetes	Not Available	Not Available	Minimum age of diagnosis: 30. Maximum face value \$400,000	
<i>B. Diabetes-Friendly Life Insurance Companies (examination required)</i>					
Banner Life Insurance Company	Controlled Type 2 diabetes	Not Available	Not Available	Minimum age of diagnosis: Case-by-case basis Maximum face value \$500,000	Greenberg (2021)

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/ Sources
Prudential Insurance Company of America	Controlled Type 1 or Type 2 diabetes	Not Available	Not Available	Minimum age of diagnosis: Case-by-case basis Maximum face value \$20,000,000	
Protective Life Insurance Company	Controlled Type 2 diabetes	Not Available	Not Available	Minimum age of diagnosis: Case-by-case basis Maximum face value \$10,000,000	

Insurance Company	Type Diabetic Cover	Features & Other coverage (Inclusion)	Exclusion	Entry Age	Details/ Sources
AIG American General Life Insurance Company	Controlled Type 2 diabetes	Not Available	Not Available	Minimum age of diagnosis: 30 Maximum face value: Varies based on age	

In the takaful industry specifically, the micro-takaful scheme is not new (Husin&Haron, 2020). According to Bank Negara Malaysia (2016), a micro-insurance/micro-takaful product can be defined as an insurance/takaful product that is designed to respond to the financial protection needs of low-income households (Zuliani& Rahman, 2018). In this respect: (a) ‘financial protection’ means being able to access timely and adequate financial resources to (i) cope with major expenses; or (ii) provide temporary or partial relief from financial difficulties arising from unexpected adverse events; and (b) ‘low-income households’ refers to poor, vulnerable or lower middle-income households, particularly groups that have been previously excluded from access to insurance/takaful. Overall, a micro-insurance/micro-takaful product should demonstrate the following principles presented in Table 3.

Table 3: Principles of micro-insurance/micro-takaful

Principle	Criteria
Simple	<ul style="list-style-type: none"> • Products are offered and serviced in a manner that is easily understood by the target group. • Product features are self-explanatory such that minimal advice from intermediaries is needed. • Benefits, terms and conditions are straightforward with minimal exclusions and restrictions. • All disclosures, marketing materials and languages used respond to the target group's level of financial literacy.
Protection Needs-Driven	<ul style="list-style-type: none"> • Proportion of premium/takaful contribution allocated to financial protection is maximised. • Protection provided is relevant and meaningful in that it should not intentionally cover risks that the target group does not need.
Accessible	<ul style="list-style-type: none"> • Premium/takaful contribution is affordable for the target group. • Distribution channel is accessible and approachable for the target group. • Product features and processes suit the target group's circumstances. • All processes including premium/takaful contribution payment, policy/takaful certificate renewal, claims and enquiries are easily accomplished by the policy owner/takaful participant.
Efficient	<ul style="list-style-type: none"> • All processes are expedient and timely with

Principle	Criteria
	particular focus on minimising time to claims pay-out. <ul style="list-style-type: none">• Back-office administration is simplified, streamlined and automated as much as possible.

Source: Bank Negara Malaysia (2016).

On 24 November 2017, in a collaboration between the central bank, the Life Insurance Association of Malaysia (LIAM), Malaysian Takaful Association (MTA) and General Insurance Association of Malaysia (PIAM), BNM officially launched the '*PerlindunganTenang*' protection scheme (Ghani et al., 2021). Based on three basic criteria of being affordable, accessible and simple, the products available under *PerlindunganTenang* were developed by insurers and takaful operators to enhance the financial inclusion of underserved segments in Malaysia (Chiew, 2017), particularly the bottom 40% of households (B40). This initiative is aimed to reach out to eight million working-age Malaysians and over 700,000 micro enterprises that currently need insurance and takaful protection against key risks in life. Ultimately, it would help to fulfil the nation's aspiration of reducing the protection gap and insuring 75% of the population by 2020 with insurance and takaful protection (Eusoff, 2017). Currently, new incentives such as *PerlindunganTenang* vouchers valued at RM50 each and the waiver of stamp duty for the purchase of *PerlindunganTenang* products for another 5 years to 2025 have been announced by BNM and these efforts will benefit about 12.8 million members of B40 households in the country ('*PerlindunganTenang* to benefit 12.8 mil B40', 2020). Table 4 presents micro-insurance/micro-takaful products provided by the takaful operators and insurance companies in Malaysia. This implies that there are serious and continuous efforts by many parties to help the underserved market to get their basic protection by providing affordable products/schemes.

Table 4: Micro-takaful/micro-insurance in Malaysia

Takaful Provider	Product offered	Features
AIA Public Takaful	AIA i-Starter Plan (<i>Skim Perlindungan Tenang</i>)	<ul style="list-style-type: none"> • Entry age: 16–55 years old • Sum covered: RM10K–RM30K • Contribution: min RM33/ year (RM2.87 per month) (depends on age/gender)
Allianz	Allianz Kasih hayat (<i>Skim Perlindungan Tenang</i>)	<ul style="list-style-type: none"> • Sum covered: RM10K & RM20K • Contribution: min RM38/year (RM3.16 per month)
	BIMA Life (<i>Skim Perlindungan Tenang</i>)	<ul style="list-style-type: none"> • Sum covered: RM20K, RM40K, RM60K & RM100K • Contribution: min RM5.30 to RM26.50/month
Great Eastern	Easy Care Plus (<i>Skim Perlindungan Tenang</i>)	<ul style="list-style-type: none"> • Sum covered: RM15K & RM40K (depends on age) • Contribution: min RM10/month
Hong Leong Assurance	Life Protector (<i>Skim Perlindungan Tenang</i>)	<ul style="list-style-type: none"> • Sum covered: RM20K • Contribution: RM60/year (RM5 per month)
MCIS Insurance Berhad	Merchantrade Insure – Life (<i>Skim Perlindungan Tenang</i>)	<ul style="list-style-type: none"> • Sum covered: RM4 to 20K • Contribution: RM12–RM60/year (RM1 – RM5 per month)
Prudential BSN	PruBSNLindungi (<i>Skim Perlindungan Tenang</i>)	<ul style="list-style-type: none"> • Entry age: 19–60 years old • Sum covered: RM20K–RM30K

Takaful Provider	Product offered	Features
		<ul style="list-style-type: none"> • Contribution: min RM50/year (depends on age /gender/health status/occupation)
Sun Life Malaysia	GOLIFE (<i>Skim Perlindungan Tenang</i>)	<ul style="list-style-type: none"> • Sum covered: RM18K–RM76K • Contribution: GOLIFE 5–RM60 per year (RM5 per month), GOLIFE 10–RM120 per year (RM10 per month) (depends on age /gender/health status/occupation)
Takaful Ikhlas	AGRO Maburur-I (<i>Skim Perlindungan Tenang</i>)	<ul style="list-style-type: none"> • Entry age: 18–64 years old • Sum covered: RM13K–RM40K (depend on plan) • Contribution: min RM75/year (depends on plan)
Tokio Marine Life	Tokio Marine- starter Pack (<i>Skim Perlindungan Tenang</i>)	<ul style="list-style-type: none"> • Sum covered: RM10K–RM15K • Contribution: min RM6 @ RM9 @ RM16/month (depends on plan)
Prudential BSN	Micro-takaful JariyahProgramme	<ul style="list-style-type: none"> • Free 12–month family takaful coverage for selected and eligible low-income households (B40).
Malaysia government	My Salam	<ul style="list-style-type: none"> • Free takaful assistance scheme by the government which provides takaful protection for eligible individuals

Source: LIAM (2021); Bank Negara Malaysia (2020).

DISCUSSION

Current Insurance/Takaful Products Related to Diabetes in Malaysia

Takaful is one of the dynamic products in Islamic finance, which combines the elements of social welfare in its business features and models (Billah, et. al., 2019). The takaful products development and the selected model should consider several factors including (i) concept of brotherhood, solidarity, mutual help and shared responsibility, ownership of funds which participants, (iii) elimination of uncertainty, and (iv) fund management. While these foundation criteria play important roles in takaful product development, the pricing factor also becomes one of the important criteria that must be considered. Under-pricing factors, elements of actual costs involved, mortality rates, competition with other players are important items to be included (Masud (2011). This to ensure that the products are able to sustain and protect the participants as stated in the agreement.

In Malaysia, takaful industry is positioned under the Bank Negara Malaysia authority and ruled under Islamic Financial Services Act 2013. This act ruled the licensing and operation of the providers and management of funds. Takaful providers are also subject to Takaful Operational Framework 2019 (TOF), which was developed under the IFSA framework. TOF rules several requirements closely monitoring the operational aspects of takaful products. Areas of emphasis under TOF are product structuring, underwriting, re-takaful, investment, surrender of takaful certificate, remuneration for providers, operating costs, surplus management, and others.

As far as the statistics of people with diabetes are concerned, it is perhaps surprising that very little is known about the stand-alone takaful and insurance products for diabetics in the market. With regards to the products or plans for diabetics per se, there is no stand-alone policy offered by any takaful operators in Malaysia. Since the cost of treating diabetes has become exorbitant, it is natural to observe that not many insurance companies will dare to provide insurance coverage for these unfortunate people. In Malaysia, very few companies are providing insurance coverage for people with diabetes. Challenges to the insurance company include the inclusion criteria to be created so as to ensure both parties are happy. Some do encourage lifestyle modification to the patients so that the risk of them getting complications is low. This can be very beneficial not only to the insurance company, but the patients tremendously will get the benefit as the better control they acquire, the better life satisfaction they will obtain. Studies have shown that the control of diabetes can reduce the complication by almost 30% compared to those who are not.

Building and creating a new insurance policy for a diabetic patient requires a lot of work. Data needs to be gathered from patients and insurance companies. This is to ensure the motive and benefit of coverage can be enjoyed optimally without compromising the patient's overall health mentally and physically. The views from their families and friends surrounding them is crucial in making the policy more user friendly, focused and beneficial to all. We need to ensure that the payment can be maintained and sustained so long the policy would cover it. There is no meaning if the payment is very expensive and causes economic burden to the patients. All in all, certain monitoring on the flow is essential to cut any problem should they arise.

Creating a new insurance or takaful product will go through the process of product development to ensure the product is able to sustain. Product development is a step-by-step process that involves idea generation, product concept and feasibility, product planning and design, underwriting guidelines, product pricing, and reinsurance/re-takaful (Purushotam, et al., 2017). In essence, an insurance premium/takaful contribution is the payment or cost to the policyholder in exchange for coverage. Payments in this case, can be made in different time frequencies such as monthly, quarterly or annually. In determining the price of a policy from the perspective of an insurance company, several factors will be considered before coming up with the final premium price (i.e., the price which customer pays). Such factors include age, type of coverage, amount of coverage and some other personal information (Sriram, et. al., n.a). These important factors need to be considered wisely when offering diabetes protection plans.

Micro-Takaful in Malaysia: Opportunity for Diabetics Protection Coverage

Under the Government Transformation Programme (GTP), there are several National Key Results Areas (NKRAs) that have been identified to ensure the development of socio-economic growth of Malaysians. Health care is one of the main priorities of this developing country based on the findings that the standard of living of most Malaysians are within the low to moderate level (Salleh et al., 2018). Specifically, the low to moderate level individuals consist of hard-core poor, poor and low-income earners (B40), and moderate-income earners (M40). According to the Economic Report 2015/2016, the B40 group is categorised as those households with a monthly income of RM3,855, while the M40 (40% medium income group) are those who earn between RM3,860 and RM8,319 monthly. The Eleventh Malaysia Plan (11MP) reported that 60% of the B40 and M40 are those

who come from a level lower than the middle class. Therefore, access to health care has become one of the main agendas in which the government has taken action to increase the average health spending to 12–13% per year. The high budget allocated to the Ministry of Health for health services varies annually with allocations of RM19.3 billion in 2012, RM22.1 billion in 2014, and RM23.3 billion in 2015. Meanwhile, the Ministry of Health has established a program known as the Malaysian Healthcare Travel Council (HTC) to further promote Malaysia as a world-class healthcare service provider (Salleh et al., 2018).

However, the facilities provided at government hospitals are limited to only 134 hospitals and nine special medical institutions, which also minimises the services that should be made available to the public. Hence, this indicates the inadequate accessible healthcare services needed to cope with a population that is almost approaching 30 million. Health care can be expensive and in the absence of insurance cover, households with severe and immediate medical needs can be forced to spend a large amount of their household budget on health care (Burhan et al., 2015). One of the possible alternatives to overcome this problem is to buy health insurance (Drechsler & Jütting, 2005). Nevertheless, the existing health insurance is considered very expensive especially for the poor individuals in Malaysia.

The disadvantaged group of people who have limited access to health care is reported to suffer a negative impact on their dignity, human capital formation and their risk-management options (Jütting, 2003). In addition, WHO records highlight that very few countries cover large parts of their health care expenses through private health insurance schemes, hence the contribution of private risk-sharing programs towards universal health coverage is still very limited (Drechsler & Jütting, 2005). To solve the constraints, the scheme should be well planned for targeted subsidies (partial), flexibility in payment procedure (instalment), education, and strengthening risk awareness among the poor (Salleh, et al., 2018). Thus, the establishment of mechanisms that can increase the availability of insurance and takaful schemes for the poor is a matter of urgency.

The microinsurance and micro-takaful market in Malaysia shows promising trends as shown by the fact that Malaysia was leading for microinsurance coverage in 2013. Malaysia recorded a 184.7% compound annual growth rate in micro-insurance coverage between 2010 and 2012 (Htay et al., 2015). This implies a continuous effort by the Malaysia government to assist low-income groups and shows the potential of offering diabetes protection plans for this underserved market.

CONCLUSION

This study provided extensive literature on insurance and takaful coverage for diabetes protection in Malaysia. Based on the extensive literature search, it shows only three takaful operators and seven insurance companies has provided coverage on diabetes patient. Meanwhile, government through My Salam program has provided free takaful assistance scheme protection for eligible individuals.

This paper found that the number of articles on insurance and takaful coverage protection for diabetes has increased significantly over time. By synthesising and reviewing, the review of the articles as specified in Table 1 reveals that only a limited number of articles on insurance and takaful coverage protection for diabetes have been identified. The research articles have identified insurance and takaful operators has offered coverage protection for diabetes, which can be identified with sum covered between RM10,000 to RM100,000. Moreover, this kind of coverage protection was specifically focus on below 40 (B40) group of income. Besides, government also provided free Takaful coverage protection to this group category of income. This paper also confirms this type of coverage protection offered with low monthly contribution.

With the rising costs of healthcare, and specifically those related to diabetes, it may be the time to explore other possibilities to reduce the financial burden. It has thus become an undertaking of insurance and takaful companies to come up with specific products that can cater to the special group of people living with diabetes in the near future. Therefore, this paper reviews the recent insurance and Takaful coverage for diabetes patient in Malaysia. Also, this study reported the current insurance and Takaful operators offered diabetes plan available in the market. These valuable data are important to discover the type of reasonable, affordable, and unique insurance policy for people who are in need of such a scheme. Not only will they feel confident that their illness will be taken care of, but they will hopefully regain a better quality of life. It is essential for Insurance/Takaful operators to develop multiple products to interest and benefits to customers.

LIMITATION OF THE RESEARCH

The defined rule for document searching and selection excluded out-of-scope documents that might be relevant. Furthermore, as this paper concentrates exclusively on insurance and takaful coverage for diabetes

protection in Malaysia, the possibility that other relevant works do appear elsewhere in a different platform is not denied.

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