

Disability Income - Opportunity in Asia



Life Protection Seminar

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Association of Singapore

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Introduction



Disability Income Cover is known by many names in the insurance industry – ‘income replacement’, ‘personal health insurance’, and so on.

The purpose of the product is to replace a proportion of lost income that arises from the onset of disability

In many instances, this product is regarded as a ‘difficult’ product and is not widely sold in emerging markets such as Eastern Europe, Latin America and Asia.

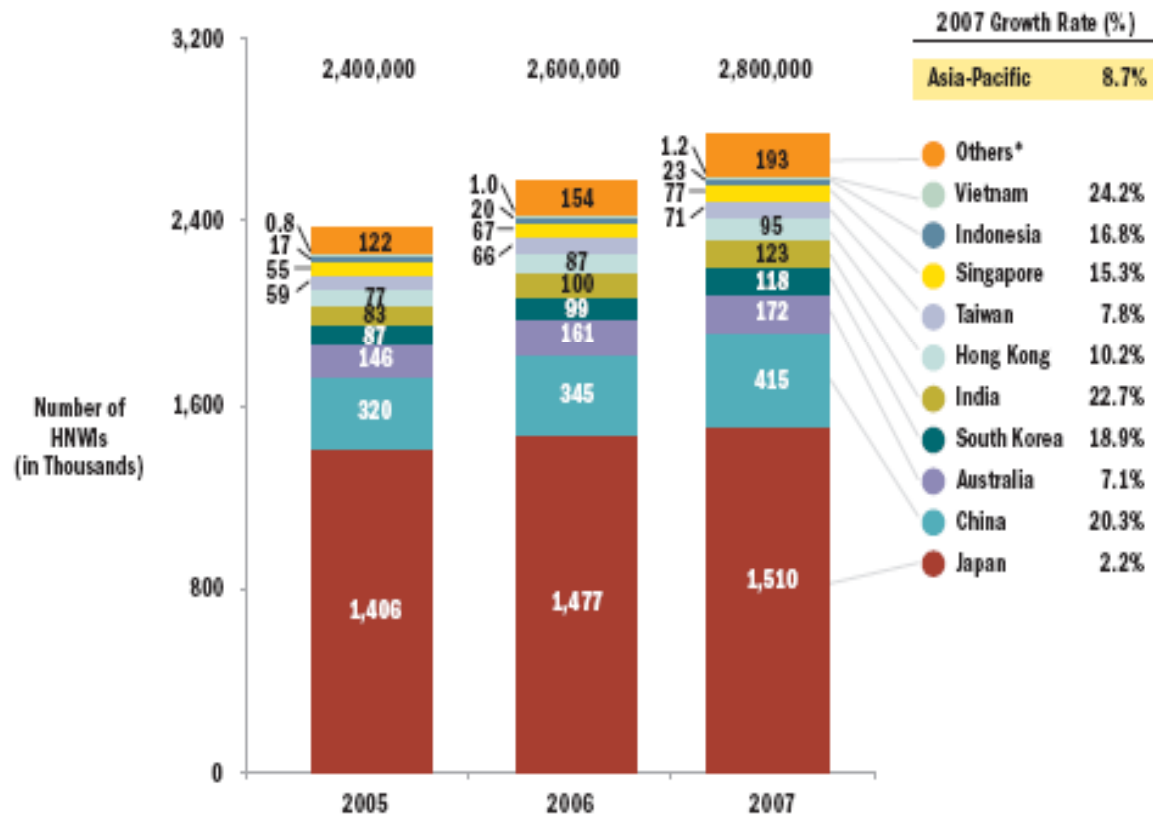
The ‘difficult’ moniker is probably due to the adverse (disastrous) experience in the underwriting results experienced in countries such as New Zealand, Australia, South Africa, the USA, Canada, and the UK.

However, the lessons learned have allowed companies to subsequently enter this line of business with profitable outcomes.

The potential for DI – the potential size of the prize



The number of people in the various countries who could afford this product is on the increase. (HNW defined as assets >USD1m.)

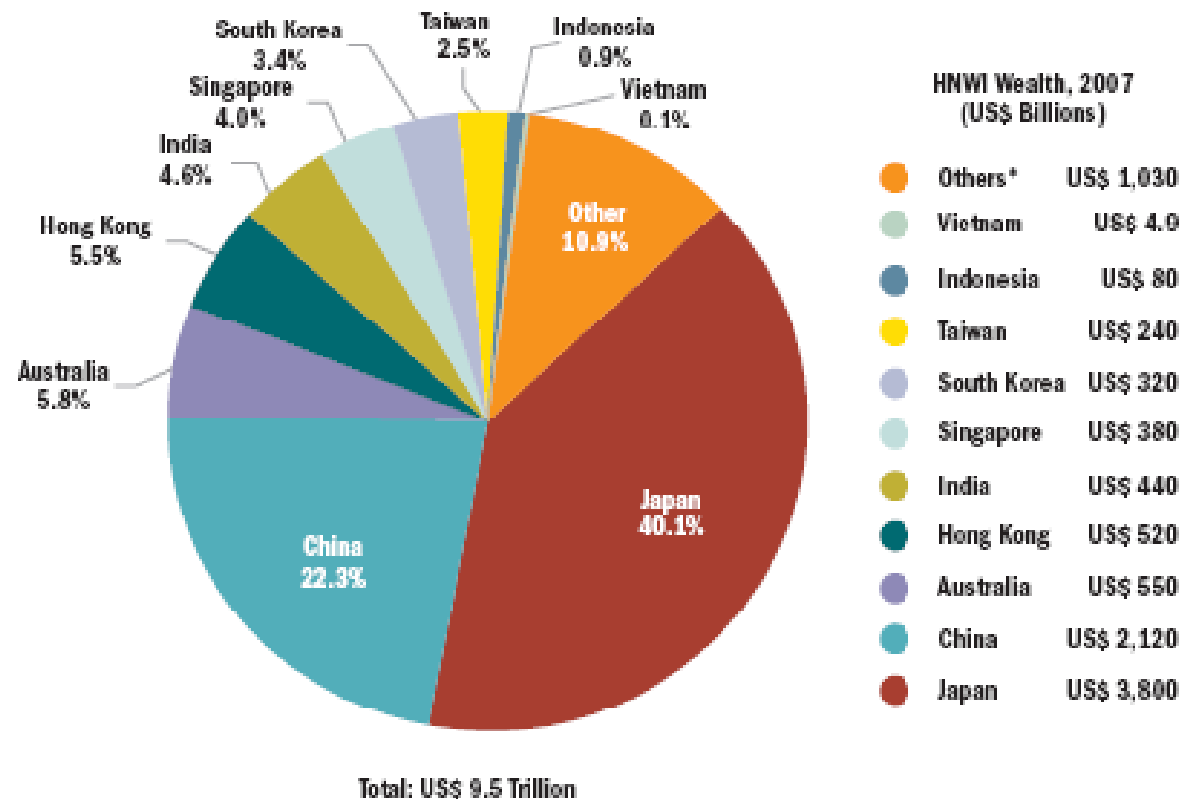


Note: *Others category is comprised of eight markets: Kazakhstan, Malaysia, Myanmar, New Zealand, Pakistan, Philippines, Sri Lanka and Thailand
 Some historical figures have been restated as the result of additional country-level data becoming available in 2007
 Chart numbers are rounded
 Source: Capgemini Lorenz curve analysis, 2008

The potential for DI – the potential size of the prize



While China and Japan dominate in terms wealth, Asia as a market of wealthy people is impressive



Note: *Others category is comprised of eight markets: Kazakhstan, Malaysia, Myanmar, New Zealand, Pakistan, Philippines, Sri Lanka and Thailand
Chart numbers are rounded

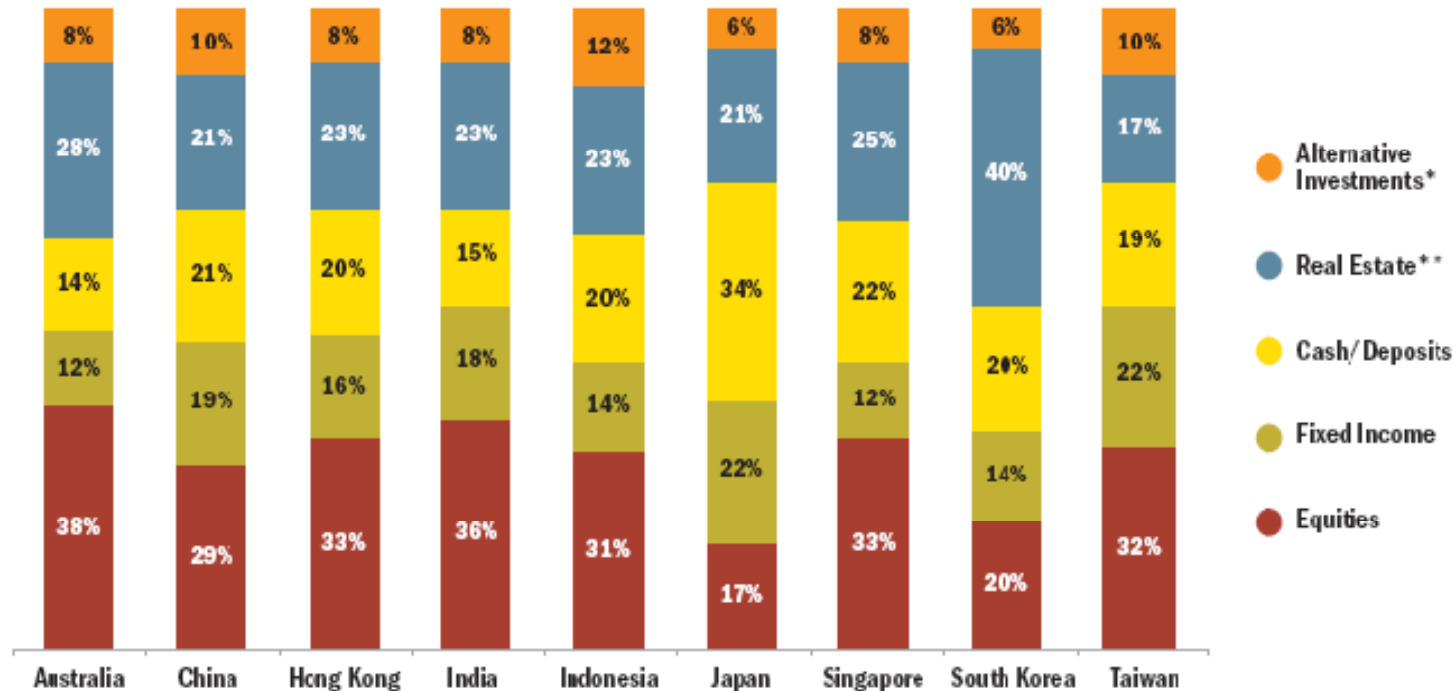
Source: Capgemini Lorenz curve analysis, 2008

Source: Merrill Lynch/Capgemini – Asia Wealth Report 2008

The potential for DI – the potential size of the prize



Individual wealth is on average comprised of 17% fixed income and 21% cash and deposits across Asia



Note: * Includes: Structured products, hedge funds, derivatives, foreign currency, commodities, private equity, venture capital, other (may include: structured credit, managed futures, investments of passion, etc.)
 ** Includes: Commercial real estate, REITs and other investment properties
 Responses for India include both Resident and Non-Resident Indians
 Source: Capgemini/Merrill Lynch Financial Advisor Survey, April 2008

The potential for DI – the potential size of the prize



Average 'wealthy' income in China is defined as annual income of US\$75,850.

Segment Name	Average household income US\$ thousand pa	Percent of Total Wealth	Key Characteristics
Luxuriant	85	22	<ul style="list-style-type: none"> • Highest income among wealthy located near tier 1 cities; higher proportion women • Care about health environment and quality of family life • Quality matters more than brand; against look-alike products
Demanding	84	13	<ul style="list-style-type: none"> • Higher income than most wealthy yet hardest working • Less willing to pay for the best, hard to please • Not confident future earnings will grow significantly, dislike borrowing
Flashy	79	22	<ul style="list-style-type: none"> • Slightly above average wealthy income; greater numbers in tier 1 cities • Go out of their way to find cheapest price • Confident financially but continue to work hard; care less about health and environment
Urbane	73	14	<ul style="list-style-type: none"> • Lower than average wealthy income; higher proportion males. • Care about health and environment and quality of family life • Care more about quality than brand; against look-alike products
Climber	71	8	<ul style="list-style-type: none"> • Lower than average wealthy income mainly in tier 2 and 3 cities • Status conscious and keen to socialize with up-and-coming/influential • Like luxury goods; go out of way for cheapest price; less confident
Down-to-earth	70	10	<ul style="list-style-type: none"> • Younger and newer to luxury; great numbers in tier 2 cities • Value family life over social life; little interest in foreign or high end • Financially confident; feel peer pressure to earn more
Enthusiast	69	11	<ul style="list-style-type: none"> • Lowest income amount the wealthy with greater numbers in tier 2 cities • Enthusiastic about luxury goods; very showy • Prepared to buy look-alikes; favor Chinese brands

The WHO Global Burden of Disease Initiative



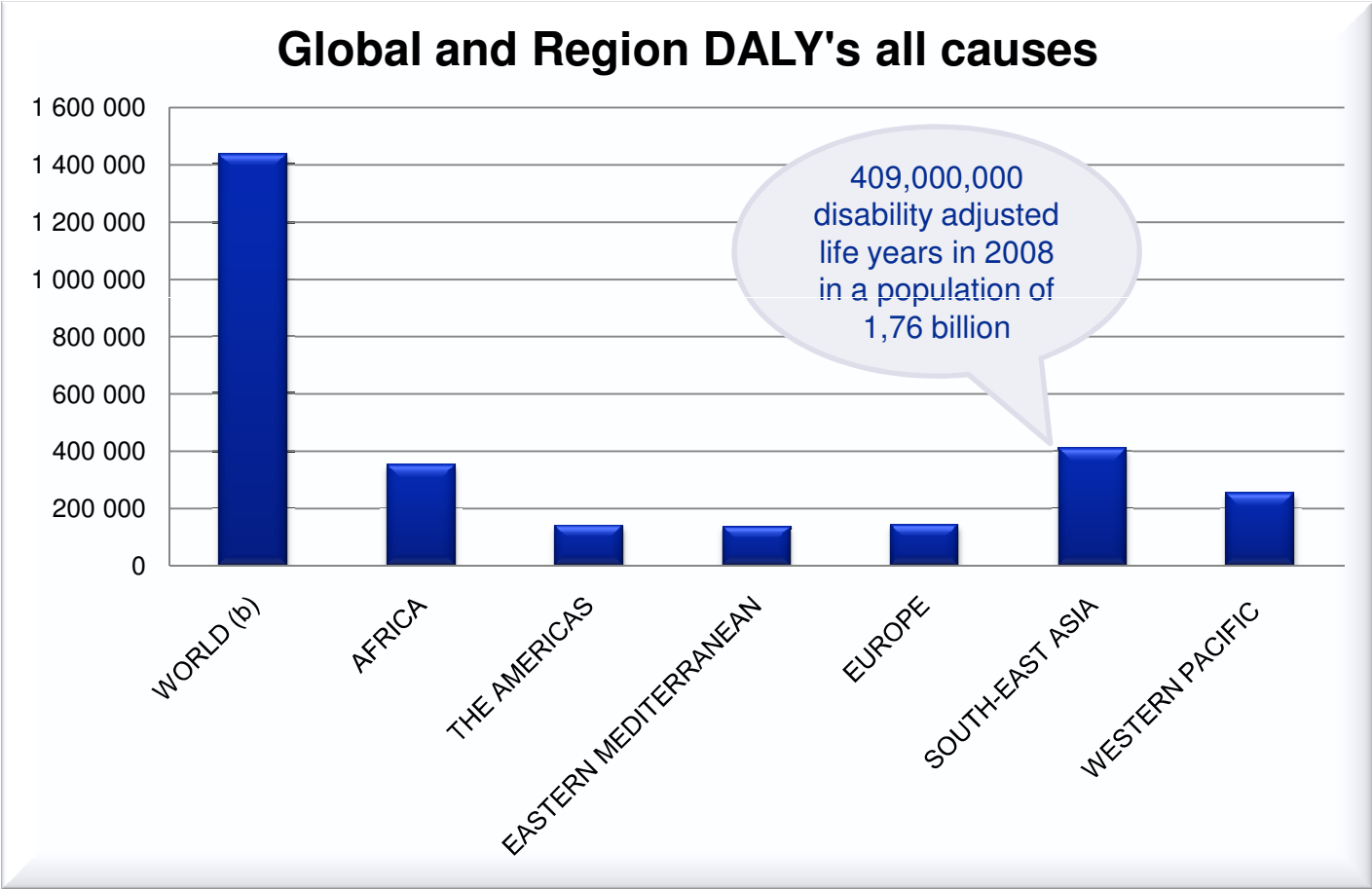
An interesting new way of looking at the need for a protection product.

- A consistent and comparative description of the burden of diseases and injuries and the risk factors that cause them
- A framework for integrating, validating, analysing and disseminating such information is needed to assess the comparative importance of diseases, injuries and risk factors in causing premature death, loss of health and disability in different populations.
- The study quantifies the health effects of more than 100 diseases and injuries for eight regions of the world.
- The study generates comprehensive and internally consistent estimates of mortality and morbidity by age, sex and region.
- The study also introduced a new metric – the Disability-Adjusted Life Year (**DALY**) – as a single measure to quantify the burden of diseases, injuries and risk factors. The DALY is based on years of life lost from premature death **and years of life lived in less than full health.**

The Disability Adjusted Life Years by region



It is interesting to note that there will be more disabled years in SEA than in Africa! A rate of disability adjusted life year of one in 4 people!

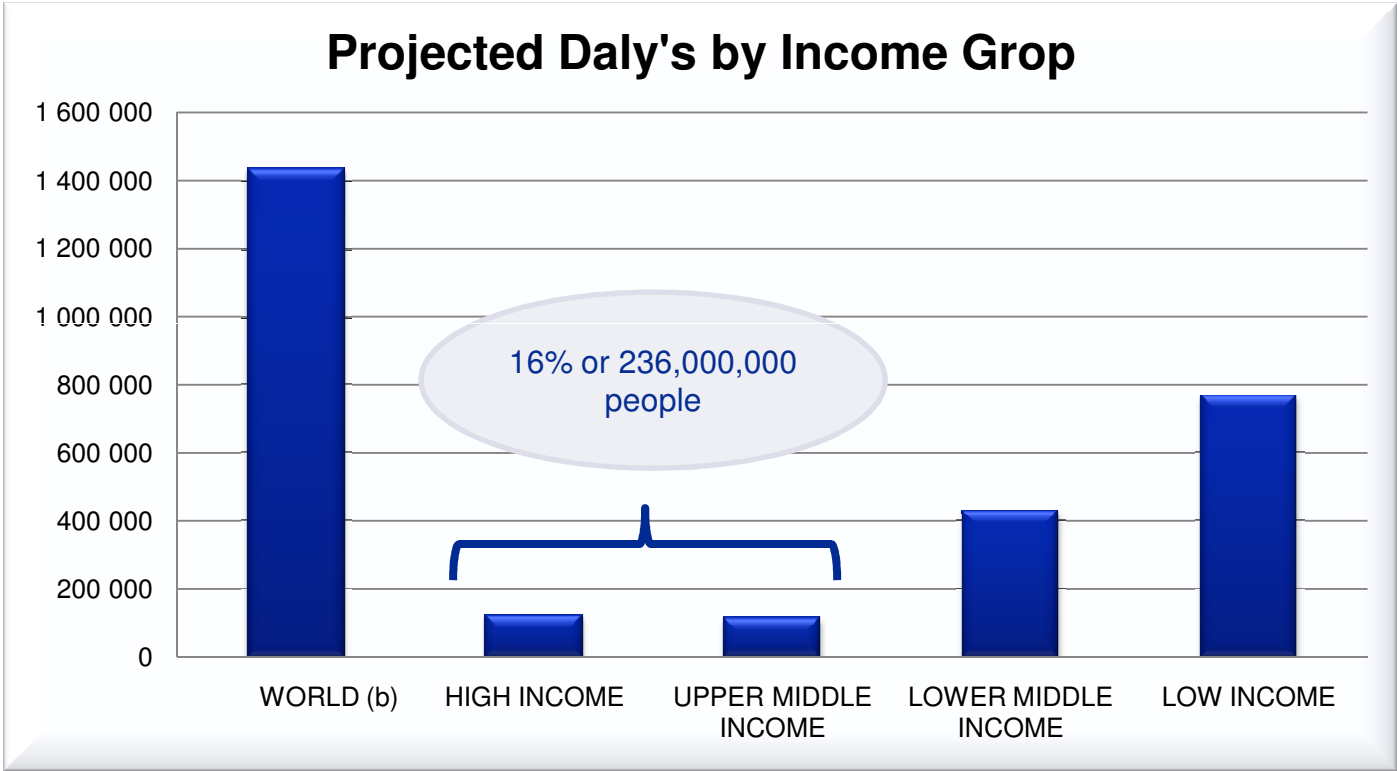


Source: WHO – Global Burden of Disease 2004

The Disability Adjusted Life Years by region



With SEA (not including China) comprising 28% of the world population, we could assume the HI and UMI component would be 66 million lives



Note: Income categories are as defined by the World Bank's World Development Report 2004. Countries are divided among income groups according to 2004 gross national income (GNI) per capita. The groups are low income (US\$825 or less), lower middle income (US\$826–3,255), upper middle income (US\$3,256–10,065), and high income (US\$10,066 or more).

Source: WHO – Global Burden of Disease 2004 as updated.

The size of the DI prize – the accessible target market



- Asia has a growing wealthy population that is evident to a greater or lesser degree in most countries
- While the wealthy segment is worth ~US\$9.5trillion, the earned replaceable income subset of this could exceed US\$ 1.6 trillion
- The segment of this population to whom this DI product would be sold would at the very least total around 1million people.
- However, using the WHO and WB estimates, the target market (high and upper middle income groups only) could be as large as 236 million lives
- With a penetration rate of 10%, for relatively standard product features, the annual premium could be around US\$500.
- This could potentially constitute APE of around US\$ US\$11.5billion across Asia

The definition of Disability



It is worth noting that the 'technical' definitions of 'disability' can be summarised as varying by degree with which performance is measured

World Health Organisation:

“any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being” (World Health Organization)

Australian Bureau of Statistics:

“restriction or impairment which has lasted, or is likely to last, for at least six months and restricts everyday activities” (Australian Bureau of Statistics)

Insurance Industry:

“unable to perform occupation (any, own or suited) continuously for the duration of the waiting period”

The impact of Disability

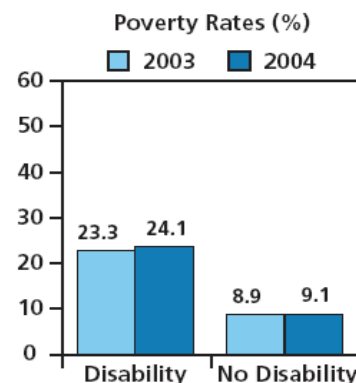
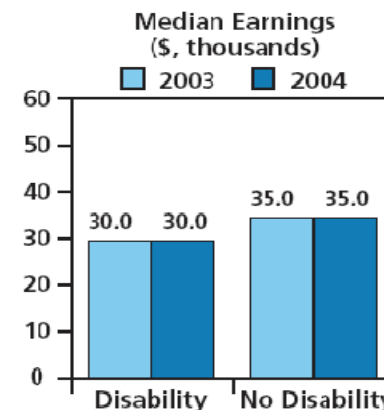


Disablement of the individual has an impact on the overall economy

Australia

- Only 15% of those with profound core disability employed compared to 81% without disability
- Median weekly income for disabled of \$255 compared to \$501 for non-disabled.

United States of America



The impact of Disability



In Asia, the percentage of lifespan lived with a disability is greater than in western countries by 2.5% for males and 3.2% for females.

Rank	Selected Countries	Life Expectancy (yrs)		Health Expectancy (yrs)		% of lifespan lived with disability	
		Male	Female	Male	Female	Male	Female
1	Japan	77.6	84.3	71.9	77.2	7.3	8.4
2	Australia	76.8	82.2	70.8	75.5	7.8	8.1
3	France	74.9	83.6	69.3	76.9	7.5	8.0
8	Switzerland	75.6	83.0	69.5	75.5	8.1	9.1
24	USA	73.8	79.7	67.5	72.6	8.6	8.8
28	Denmark	72.9	78.1	67.2	71.5	7.9	8.4
30	Singapore	75.1	80.8	67.4	71.2	10.2	11.8
31	New Zealand	73.9	79.3	67.1	71.2	9.2	10.2
51	South Korea	69.2	76.3	62.3	67.7	9.3	10.9
89	Malaysia	67.6	69.9	61.3	61.6	9.4	11.9
99	Thailand	66.0	70.4	58.4	62.1	11.6	11.8
103	Indonesia	66.6	69.0	58.8	60.6	11.7	12.2
113	Philippines	64.1	69.3	57.1	60.7	11.0	12.5

Source: World Health Report 2000, World Health Organisation

What are the leading causes of Disability?

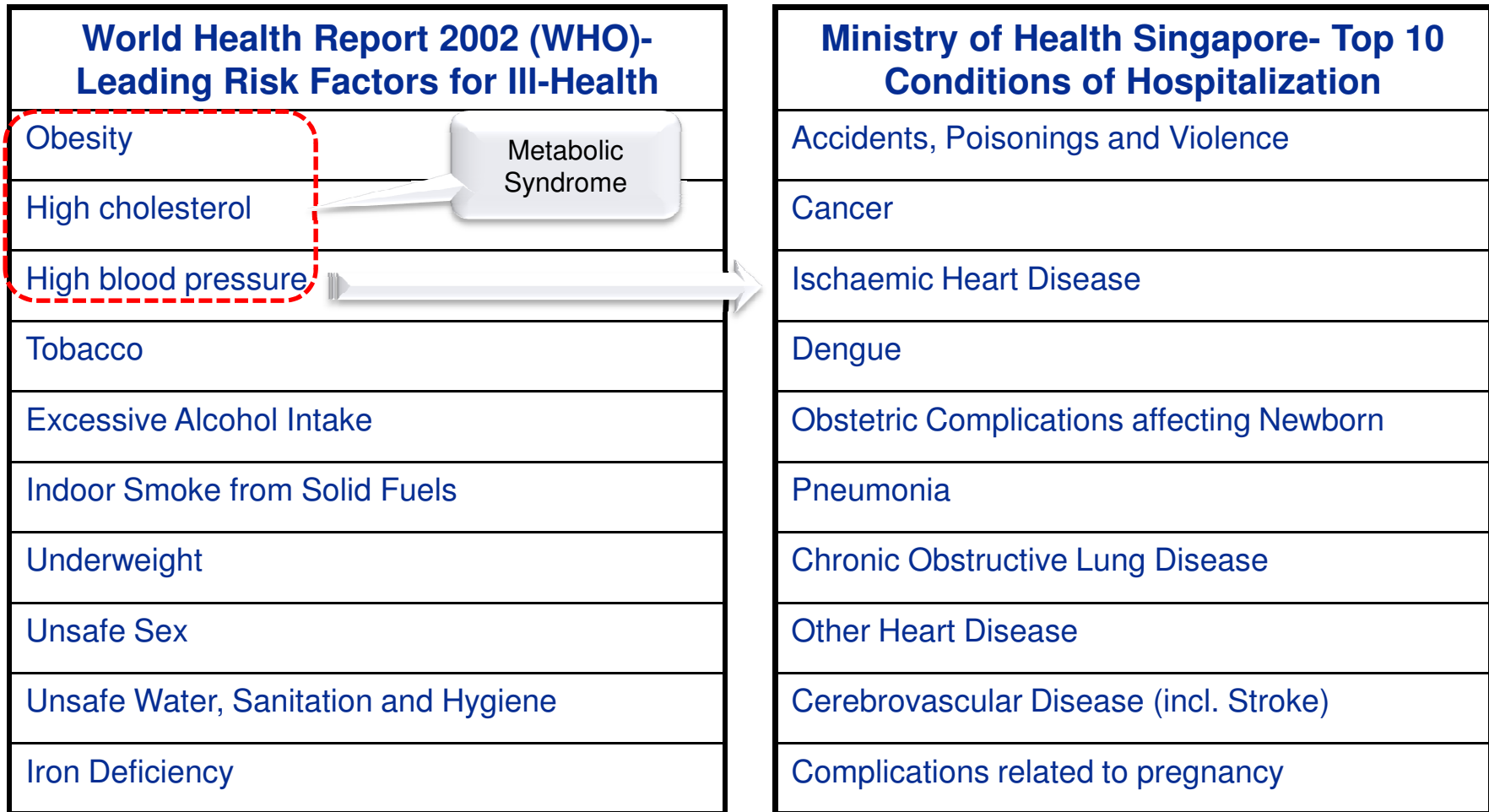


Table 3 The leading causes of disability, world, 1990

	Total (millions)	Per cent of total
All Causes	472.7	
1 Unipolar major depression	50.8	10.7
2 Iron-deficiency anaemia	22.0	4.7
3 Falls	22.0	4.6
4 Alcohol use	15.8	3.3
5 Chronic obstructive pulmonary disease	14.7	3.1
6 Bipolar disorder	14.1	3.0
7 Congenital anomalies	13.5	2.9
8 Osteoarthritis	13.3	2.8
9 Schizophrenia	12.1	2.6
10 Obsessive-compulsive disorders	10.2	2.2

Report on Global Burden of Disease (Murray & Lopez 1996)- Leading Sources of Burden of Disease in Developed Countries
Ischaemic Heart Disease
Unipolar Major Depression
Cardiovascular Disease
Alcohol Use
Road Traffic Accidents

Who is at risk from being Disabled?



Some basic takeaways regarding disability



- Increasing risk of living with disability
- Injury and mental health issues leading causes of disability in working population, but cancer also significant
- Treatment for serious illness typically extensive and prolonged
- Individual risk of disease very difficult to predict
- While everyone needs disability cover and some may find it unaffordable, the potential market who can afford it is large in Asia

The DI Product – Common design features (1)



The Standard Product

- Income payment made on total disablement
- Payments made monthly in arrears
- Benefits accrue from the end of the deferment period
- Payments continue until end of benefit period

Benefit Periods

- Fixed term – 1 year, 2 years or 5 year
- To specified age – 55, 60 or 65 (*the latter being the most common*)
- Lifetime (not all companies)

Deferment Periods

- Ranges from 7 days to 2 years
- Most common are the 1 month and 2 weeks
- These 2 options covered 90% of lives exposed in 1995 to 1998

Premiums

- Originally most products were level premium
- Currently all business sold on stepped premium basis (changing yearly in line with age)
- Main rating factors are age, occupation, sex, smoker status, level of impairment.

Premium Guarantees and Renewability

- Most products are non-guaranteed premium (but any review of premium rates must apply to whole class of business)
- Most products are guaranteed renewable (non-cancelable)
- Trend is for premium increases on both in-force and new business

The DI Product – Common design features (2)



Benefit Escalation

- Benefits for those not on claim are usually increased by the same corresponding increase in CPI
- This product feature is normally an option for which an extra premium is paid.

Definitions of Disability

- Insured must be unable to do at least one of the important duties of their occupation; and
- The insured person must not be working; and
- The insured person must be under the regular care of a medical practitioner
- In some countries, additional criteria can apply:
 - The insured need not be able to work in a “similar” job, and/or
 - The insured must not be able to work for more than x number of hours per week

Replacement Ratios

- In some countries, this can be on a reimbursement (agreed value) , loss of earnings or indemnity basis
- Maximum income replacement ratio is 75% of pre-disability income.
- Ratio reduces with higher-income earners, scaled, for example
 - 75% of first \$250,000 salary pa
 - 50% of next \$100,000 salary pa
 - 20% of any balance.

Claim Offsets

- In most cases, replacement income from other sources area offset against the amount payable to ensure replacement ratio is not exceeded.

Partial Disablement

- Benefits designed to encourage claimants to return to work by allowing them to maintain benefits, proportionally reduced.

The DI Product – Common policy exclusions



Companies will not pay any benefits if any of the following causes contribute to disability

- Life assured deliberately injures themselves or attempts to do so
- The life insured participates in any criminal activity (Note: if the life insured is convicted or imprisoned for any reason, no monthly benefit will be payable during the term of incarceration)
- Pregnancy or childbirth of the life assured unless the disability lasts for more than 90 days after the end of pregnancy, in which case the policy waiting period will start on the 91st day.
- The life assured does not comply with treatment prescribed by the attending treatment providers
- The life assured deliberately takes or uses non-prescribed drugs, other than for proper therapeutic or medical purposes, and in accordance with the manufacturer's directions for use, or the deliberate misuse by the life assured of prescribed drugs
- If a congenital disorder directly or indirectly causes or contributes to the disability, or the disability was known by the life assured to be present at the risk commencement date shown on the policy.

The DI Product – Common additional benefits



While companies may or may not have these benefits, these additions are designed to cover minor gaps while encouraging return to work.

- Trauma Benefit: if trauma suffered, monthly benefit is payable for a guaranteed period (say, 6 months) irrespective of period of disability.
- Specified Injury Benefit: similar to trauma except they are not the same injuries and payment period varies by injury (e.g. fractured femur = 2 months, paraplegia = 5 years)
- Rehabilitation Costs: Two forms – (a) reimbursement of costs incurred as part of approved rehabilitation program; (b) additional payments while a rehabilitation program is undertaken.
- Nursing Care: if nursing care required during the deferment period, a payment is made for each day nursing care is required
- Travel Benefit: a benefit pays for the repatriation if the insured is disabled while away from home.
- Death Benefit: if insured dies while on claim, benefit paid. This can take the form of a small lump payment of continuation of income for typically 3 months, after death.
- Return to Work Benefit: if, after receiving Rehabilitation & Retraining Benefit (which pays a job retraining benefit up to 12 x monthly benefit), a small lump sum benefit is paid when insured back at work for at least 3 months.

The DI Product – Key Success Factors



Each of the following key success factors is dependent on the availability of data for use in the pricing control cycle.

Pricing	Product Design
<ul style="list-style-type: none"> • Analyze experience results emerging from portfolio • Review product design features • Review underwriting practices as they may have impacted on result • Review claims management techniques for areas impacting result • Recalculate reserving based on impact of corrective actions, where necessary 	<ul style="list-style-type: none"> • Review product design against market or global best practice regularly • Ensure design features do not allow for negative anti-selection against your company • Look to remedying loopholes in product design features that have been shown to have negative impact on experience • Ensure underwriting, claims and distribution fully understand product design and intent
Underwriting	Claims Management
<ul style="list-style-type: none"> • DI underwriters must fully understand product design features and terms and conditions of the product • Underwriting team must be experienced in disability lump sum underwriting prior to being given authority for DI • They must fully understand income tax laws as well as trusts, gifting, and other related legislation • Underwriters must have an in-depth knowledge of occupation classifications as well as regulations and guidelines of non-professional sporting bodies • Rigorous technical peer reviews of all underwritten DI cases should be done on a regular basis • Only experience DI underwriters should be involved in expert-witness litigation matters. 	<ul style="list-style-type: none"> • DI claims assessors must Fully understand product design features and terms and conditions of the product • Assessors must be experienced in disability lump sum underwriting prior to being given authority for DI • They should fully understand to financial underwriting protocols followed at underwriting stage and develop a network and infrastructure of forensic accountants to validate ongoing benefit amounts • They should also develop a network of private investigators to validate ongoing claims • A network of rehabilitation specialist and clinics should established with the intention of assisting return to work • A dedicated team should focus on claims terminations • Assessors should liaise with Actuarial reserving regularly with regards to early terminations of claims (return to work or commutations)

DI product design imperatives



- Many development and innovative changes have been tried in many markets over time and it seems pretty clear what will and won't work
- Design features and best practice is available from numerous sources to suite the intent of the development team and strategy of the insurer
- With creative manipulation an insurer can target a specific niche it wishes to target for participation in any particular market
- Primary goal is to ensure that claims able to be managed and controlled

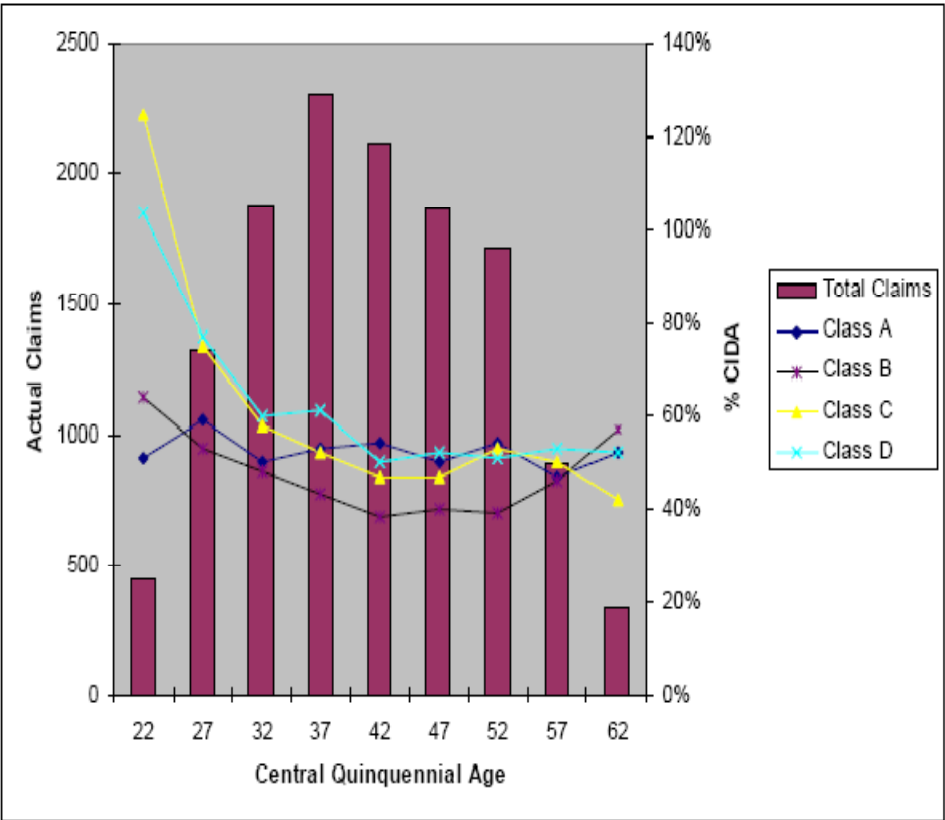
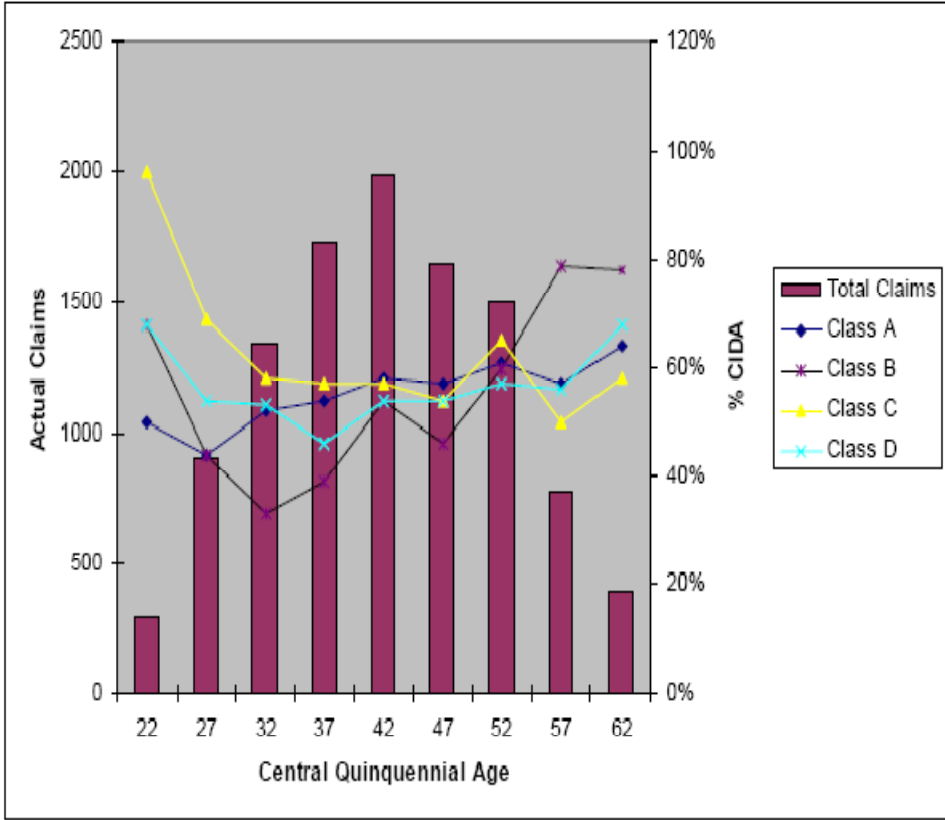
The DI Product – An experience comparison



The duration of the wait period has a significant impact on the claims experience consistently across occupation classes

Incidence Rates Males vs CIDA – 2-week

Incidence Rates Males vs CIDA – 1-month



Source: Institute of Actuaries of Australia – Report on the Disability Experience Investigation 1998 to 2001

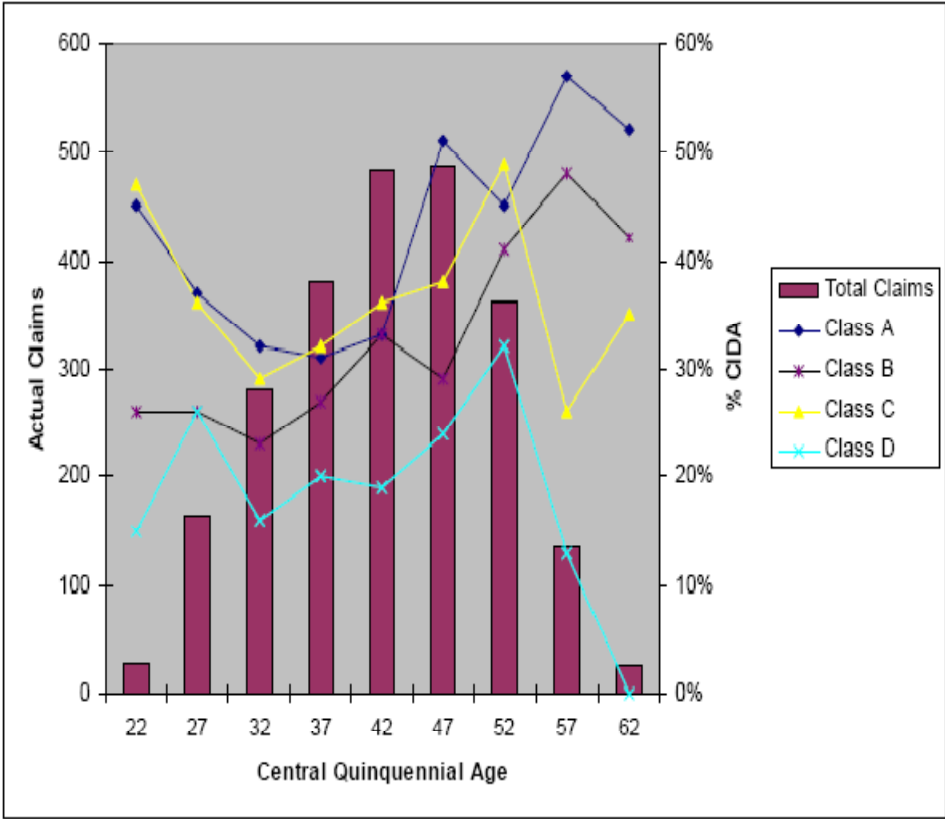
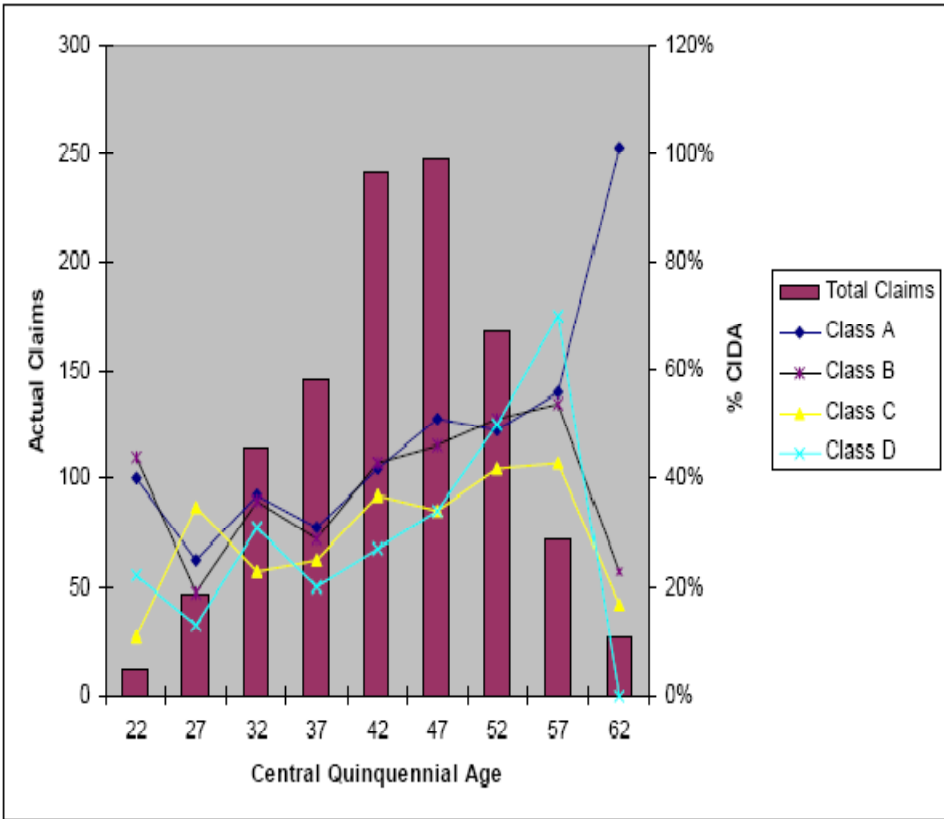
The DI Product – An experience comparison



This claims deterioration is consistent for male and female.

Incidence Rates Females vs CIDA – 2-week

Incidence Rates Female vs CIDA – 1-month



Source: Institute of Actuaries of Australia – Report on the Disability Experience Investigation 1998 to 2001

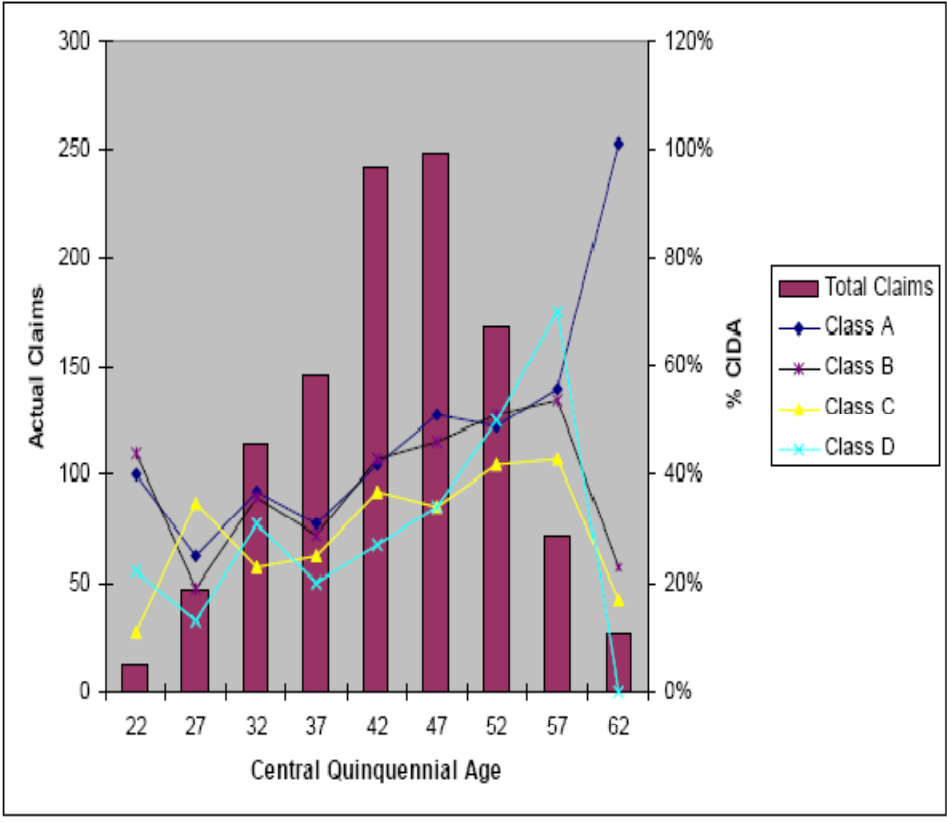
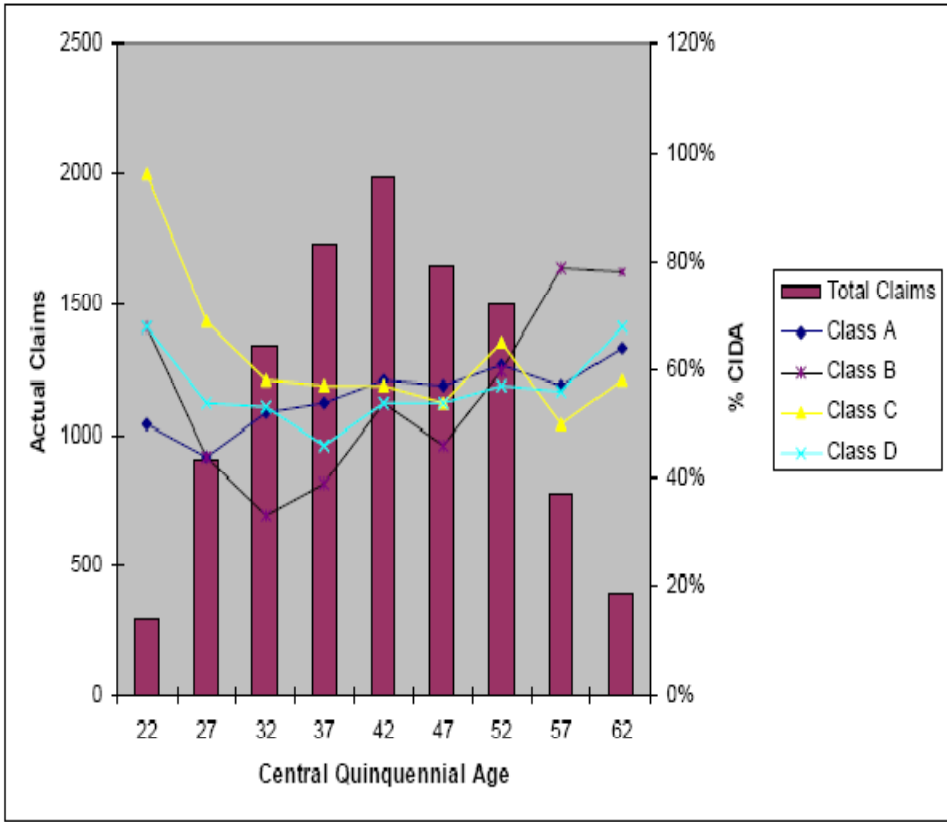
The DI Product – An experience comparison



While there is a difference between male and female experience, this is most noticeable by occupation class and for the shorter waiting periods

Incidence Rates Males vs CIDA – 2-week

Incidence Rates Females vs CIDA – 2-week



Source: Institute of Actuaries of Australia – Report on the Disability Experience Investigation 1998 to 2001

The DI Product – An Asian Company Experience



- Occupation classes are predominantly in class 1 and 2. (Only 2.5% in occupation classes 3 and 4)
- Around 80% of applications are in the age range 26 to 40
- More than 75% of applications are for benefits less than S\$4,000 per month.
- Two thirds of the in-force book are male policy holders
- 98% of policy holders are non-smokers
- Three quarters of policy holders opted for the 3 month waiting period option
- Two thirds of applicants chose the 3% escalation benefit

The DI Product – An Asian Company Experience



A review of the in-force block highlighted the following:

No.	Findings	Remarks
1.	➤ Submission and in-force business mix are broadly unchanged year on year.	➤ We can draw similar conclusion for earlier years.
2.	➤ Lesser in-force cases for ages 46-56 as compared to its submission.	➤ Acceptance are typically higher among the younger age groups.
3.	➤ There are more male buyers than female buyers.	➤ Female premiums are higher than male premiums.
4.	➤ Ages 26-40 remain the targeted age groups for sellers.	➤ An important age group when we review the product, underwriting guidelines, etc.
5.	➤ Majority are buying monthly benefits between \$1,000- \$4,000.	➤ There is a logical relationship between monthly benefit, age and occupation.

The DI Product – An Asian Company Experience



A review of the in-force block highlighted the following:

No.	Findings	Remarks
6.	➤ Less buying plan with expiry age to 65. Shift in the buying behavior to expiry age 60 than expiry age 55 in earlier years	➤ There remains a good proportion of buyers choosing age 55, 60 and 65.
7.	➤ The 3-month deferred period (shorter option) is still preferred.	➤ A good proportion of buyers choosing the 6-month deferred period as it is cheaper
8.	➤ 3% escalation benefit option remains popular.	➤ No competition on escalation benefit, as competition does not offer this.
9.	➤ Only about 2.15% of buyers fall into Occupation Classes 3 and 4.	➤ Occupation Classes 2, 3 and 4 premium rates are significantly higher than that of Occupation Class 1.
10.	➤ Distribution still dominated by IFA.	➤ Focus effort on wider distribution opportunities.

The DI Product – An Asian Company Experience



Survey of intermediaries in late 2008

Findings - Overall

- Disability Income is expensive
- Disability Income product features are not attractive
- The underwriting process is too stringent
- Product features and benefits need greater differentiation across the market
- There needs to be more players in the DI space of the market.

The DI Product – An Asian Company Experience



Survey of intermediaries in late 2008

Findings - Strengths

- Positioned as filling gaps for TPD & CI: Easy to sell (sellers)
- Covers Partial disability
- Covers non-working disability for 2 years
- Own occupation definition in 1st 2 years

Findings - Weaknesses

- Unable to cover specialists such as pilots & uniformed groups
- Max. 75% of monthly income does not include bonuses
- No cash value (pure term plan)
- Admin employees perceived low incidence to claim due to “next 24 months” definition
- Sales personnel with recurring income perceived to be unable to claim
- Price not attractive

The DI Product – An Asian Company Experience



Survey of intermediaries in late 2008

Findings – Distributor Behavior

- New entrants tend not to sell
- Traditional products such as Whole Life is sold first due to higher commission (not term life)
- Probability of disability perceived low
- Time-consuming to sell as requires a lot of explanations & questions are usually tough to answer.
- Lack of confidence in explaining product: viewed as potential can of worms as unable to answer clients' queries
- Lack of clarity / knowledge of product such as when can one claim & for how long (BIGGEST concern raised)

In conclusion, is the Disability Income product an attractive opportunity worth pursuing, or not?



- Many developmental and innovative changes have been tried in many markets over time and it seems pretty clear what will and won't work
- The customer need for disability coverage from emerging studies is clearly demonstrated
- With creative manipulation an insurer can create any specific niche target market it wishes to participate in.
- Design features and best practices are available from numerous sources to suite the intent of the development team and strategy of the insurer
- The primary KPI would be to ensure robust, effective and efficient claims management practices.
- Early movers have an attractive, virtually un-serviced share of a US\$11.5 billion prize as incentive!