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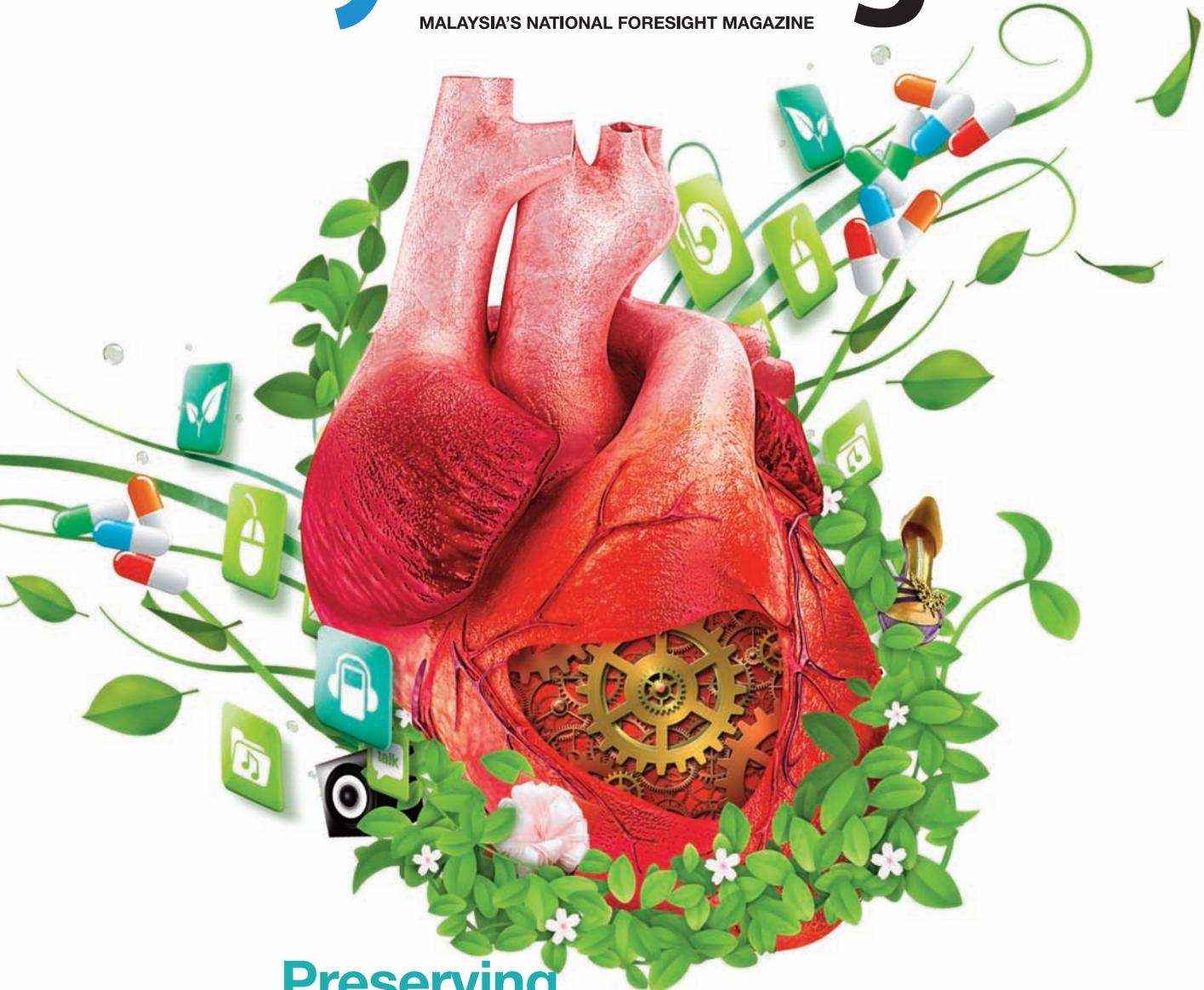
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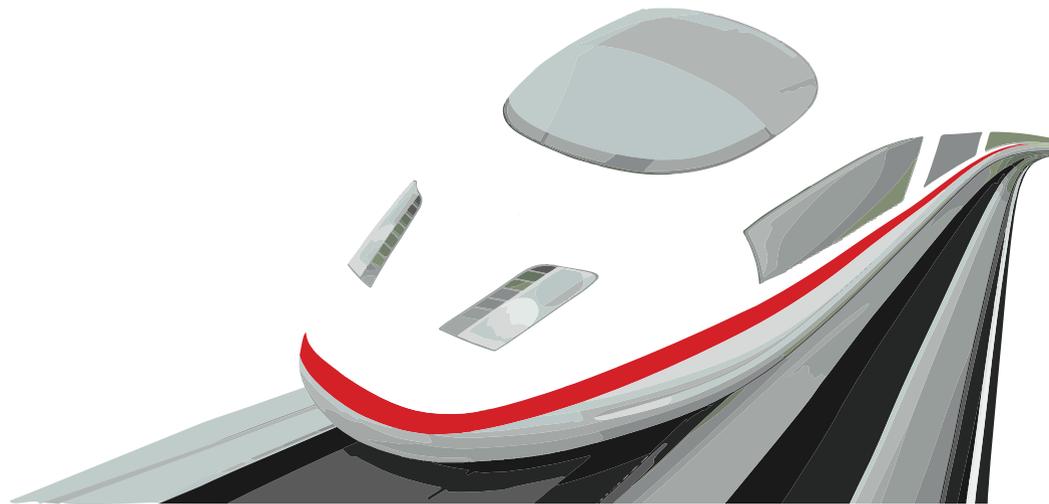




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MALAYSIA'S NATIONAL FORESIGHT MAGAZINE

02/2013

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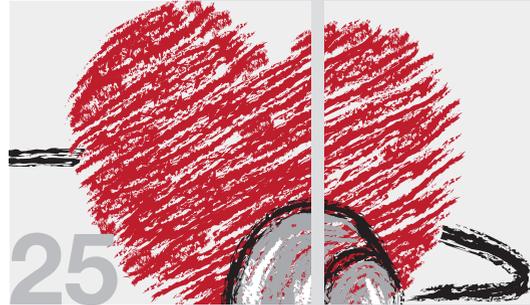
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editor's note

Initial Thoughts

BY

RUSHDI ABDUL RAHIM
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Hi, greetings from myForesight®. I am starting this editorial with a somber mood.

The recent passing away of YBhg. Datuk Dr. Mahani Zainal Abidin, Chief Executive of ISIS is indeed a big loss to Malaysia and foresight. She has been one of the proponents and supporter of technology foresight and her insights would be missed. Our condolences also goes to the family of Ms. Natrah Mohd Emran, myForesight® senior analyst on the passing of her father on the very same day. Both lost their lives to cancer, a leading cause of death accounting for more than 7 million deaths annually worldwide. Grim statistics indeed.

The passing of the people you know has the effect of making us be reflective and take a look at how we conduct ourselves; certainly our sedentary lifestyle needs to change, a boost and TLC perhaps – I mean not just Tender, Loving and Care but also Therapeutic Lifestyle Changes to our mental, medical and public health. As we strive towards becoming a high income society, work has taken precedence over our well-being; neglecting the needs of our physical being. Our lifestyle is perhaps ill suited to what our body needs. A statistic released by World Health Organization projected that by 2030 the proportion of total global deaths due to lifestyle diseases is expected to increase to about 70 percent. You can read more on these lifestyle diseases in “Non-Communicable Diseases (NCDs): a Future without hope?”

We are all aware that lifestyles are determined by a variable causes; upbringing and values as well as influences in the cultural, physical, economic, and political environments. It is without a doubt,

technology has encroached into almost every aspect of our life. Technology has become so pervasive that unconsciously we have become too dependent on it to an extent that some view technology as a destructive force of our lives and values.

Therefore, in this issue we'll discuss about technology influences in our lifestyle. As a case study, we cite linking foresight to action for Canada whereby the paper focuses on how to deliver foresight insights to key decision makers – initiatives jointly undertaken by the Science and Technology Foresight Policy Division of Health Canada and Alberta Innovates – Technology Futures. The piece on ‘Family & Home: The Next Decade’ dwells on the issues of technology

“Our condolence goes to the family of Datuk Dr. Mahani Zainal Abidin & Mr. Mohd Emran Abdullah. Both lost their lives to cancer, a leading cause of death accounting for more than 7 million deaths annually worldwide.”

influencing the future homes. Whereas the article on ‘Home healthcare’ uncovers on how home is being transformed to be center for future healthcare and wellness.

myForesight® also had the opportunity to capture the views of Prof. Datin Dr. Clara L. Chee; founder and chairman of Clara International. Here she shares her thoughts and views on the need to maintain a healthy lifestyle. Her holistic view on beauty and the importance of balancing our lives by going back to nature and taking advantage of technology to improve life is something we could take on board.

We can't address lifestyle without talking about how we consume things. Therefore in this issue we provide a piece on consumerism – consumer lifestyles (called psychographics) and how it becomes an important factor in determining how consumers make their purchase decision. The article ‘Consumerism trend in Malaysia’ provides insights on how consumerism interacts and intertwined with many other trends hence, influences our current and future behavior and culture.

Speaking of consumption, we are approaching the holy month of Ramadhan soon. It is a time for inner reflection, devotion to God, and self-control. Perhaps the timing is right; not just for the Muslims, to provide a break from our overindulgence – towards a healthier lifestyle regime.

We hope you find this issue beneficial. Wishing you great months ahead.

leader's insights

In person with

Prof Datin Dr. Clara L. Chee



The Cosmeceutical industry

I've been in this industry for more than 30 years. And I can see that the industry is expanding and growing ever since. Back in the early days, women were more concern about beauty and long term care. However, today young girls and boys have started to take care of their skin once they reach puberty. Today's active lifestyle – rich in protein and carbohydrate diet, the environment and the hormonal changes – has all contributed to the changes and problems of the skin. Thus, early skin care and treatment is very important.

Now, beauty and fashion is no longer associated or exclusive for women only. There are also rising awareness among men. Everyone has started to take extra effort in ensuring a healthy and good skin. For instance, during a job interview it is crucial for you to look presentable. Smart looking, tidy and confident is essential in almost every profession. In order to have self-confidence, you have to care of how you look, and also your health. All these factors definitely contribute to the growth of this industry.

Definition of Beauty

To me beauty means healthy skin with natural look that makes people feels comfortable and pleasant. It should come from within. The radiance and aura reflected the beauty from your heart through your appearance. Looking beautiful from the inside (kind hearted) and outside.

Healthy lifestyle is also important, and this starts from home. It is the duty of the parents to teach their young ones good manners, being respectful and thankful. Good human characteristic is also required so that we can lead a happy and harmonious life within the society. We need to be balanced physically, mentally and spiritually.

Secrets to youthful looking skin

Skin protection and taking good care of our skin is important, especially if we wish to maintain the youthful look even at the later age. We need to

ensure that we have a good skin care product range that is suitable to our climate and weather. Lifestyle and culture can also give certain impact to our skin. The westerners, with temperate weather, love to get under the sun and get tanned. They have less melanocyte; therefore, they need not have to worry about getting pigmentation. Malaysia is blessed with hot sun throughout the year. Therefore, the need for skin care and protection products that are suitable for tropical humidity and heat are crucial as overexposure to the sun damages your skin.

Now, beauty and fashion is no longer associated or exclusive for women only. There are also rising awareness among the men.

Back to nature products

During my childhood, I was exposed to the formulae using natural and herbal ingredient in my daily life. My father used his own formula to produce his own hair pomade by mixing petroleum gel with jasmine flower. Even my mother used 'jamu', herbs and vegetable as her beauty care ingredients. Both my parents inspire me to further my study in formula science. While others are using orthodox drugs such as paracetamol, antibiotics and so on, we use herbs and vegetable from our own garden that are free from pesticide to cure sickness and prevent illness. You see, going back to basic comes naturally to me; it is so much in me.

A niche market

I graduated with a degree in Science (Chemistry) and, later on, the Honorary Doctorate (PhD) in Medicinal and Cosmetic Products Technology. I believe that the exposure I gained while studying abroad has given me a very good reasoning power. I learnt that the

basic materials of beauty products are mainly petroleum based or mineral-oil based. There was, and still is, a huge tank of this substance ready for toiletries production that would be exported under different brands to many countries like Australia, US, Singapore, and Hong Kong. So I thought, what has been formulated there might not be suitable to be marketed to tropical climate countries. From there on I started to formulate my own products that are herbal based. I then shared my idea and experience with Malaysian Herbal Corporation (MHC) back in 1997, and also to other local players to encourage commercialisation of local herbs and cosmeceutics.

Please don't be confused on the difference between cosmeceutics and toiletries. Toiletries functions as a cleanser, to clean skin but not enriching or enhancing it. Meanwhile cosmeceutics contains active ingredients such as herbal extracts to help nourish and care for the skin. It acts to improve your skin to be healthier. A skin treatment product that is safe, clean and 'halal'.



Healthy lifestyle the natural way

We are also spreading our wings to the next dimension in ensuring and maintaining healthy look and lifestyle. We are currently working closely with Forest Research Institute Malaysia (FRIM) to identify the active ingredients for herbal formulation for halal herbal capsule. We also did R&D together with Institute Medical Research (IMR) to formulate the alternative to Hormonal Replacement Therapy (HRT).

There are cases reported on the after effect of the HRT such as breast and womb cancer. Having this in mind, we opt to use herbs as the alternative to prevent and also cure illness.

leader's insights

Trends in skin care products' development

A lot has been happening in the local herbal industry since the late 90's, both positively and negatively. The worrying and disturbing trends would be the introduction of hormonal ingredients for beauty treatment. Hormonal ingredients in skin care products might be harmful and damaging to your internal organs such as liver and kidney. Long term usage may cause adverse effects. For example, excessive use of placenta cream or lanolin cream can cause extra hair growth on skin. Sadly, the innocent consumers are always confused by misleading information and advertisement in the market. However, there is also positive inclination in this industry towards a more healthy, natural and clean products. I strongly emphasize in using herbal based products in skin care. In my case, I felt very blessed and thankful by the environment

It acts to improve your skin to be healthier. A skin treatment product that is safe, clean and 'halal'.

I am in. We have strong government support and initiatives like what is being offered by the East Coast Economic Region (ECER), and good climate to plant our own raw material. I can claim that herbs from tropical climate are the most powerful. However, lack of promotions on their special properties has resulted in low appreciation on our local herbs.

I am a very keen advocate in halal practices and halal herbal products. Halal or "Chin Chan" is clean, true and safe. It is not only for the Muslim. I have preached this understanding to my counterpart in China back in 1993. I believe, with these three elements, there will be no harm and no side effects. A simple example is in food preparation, if it is halal it will not cause food poisoning or diarrhoea. Therefore, we worked for halal formulation and all of our products are certified Halal.

Nip-Tuck on the rise

I have a feeling, as an adult, we have to educate our young generations to value what has been gifted to us by God. The features that we have now are from God, and we are the most perfect creation to represent our ancestor. We should feel proud and respect it.

Originally, plastic or cosmetic surgery is to help reconstruct damages due to misfortunes such as burnt and deformation. It is to give the patients their original look, not modifying it. But, nowadays we can see many people are undergoing plastic



surgeries for beauty purposes. We have read numerous cases of botched cosmetic surgeries reported over the years, which even led to death cases. One will always have to weigh all the risk and benefits of cosmetic procedure before making any commitment. And we should realize that this kind of human made beauty is not inherited. The child of a person who did plastic surgery will inherit their parents' original look. I am afraid that this trend can be a cause of broken marriage, especially if it is solely based on looks. And, to me, honesty definitely plays a role.

There is also misleading understanding on Botox treatment, another hormonal (toxic) treatment which can lead to skin cancer. This is what happened when wrong introductions were made in promoting beauty.

Developing Resources in Aesthetics

I have started a college on the second year of Clara's establishment. It is first known as Clara Beauty Treatment Centre & Therapy Academy. The trainers are all my comrades during the study years. The students have to undergo aesthetic examination where they are being evaluated and graded based on international standards by international examiners. Our certificates are globally recognised. We are the first college recognised by the Malaysian Qualifications Agency (MQA) for aesthetic education.

Currently we have schools in all major states throughout the country. Since its establishment, we have trained over 10,000 graduates and there are high demands for them locally and overseas, especially from Singapore and China. We also have students from different countries like Japan, France, Africa, India and the neighbouring countries. We even have male students in our academy and, surprisingly, they are more saleable!

High Technology in Herbal

I was motivated with the advancement of high technology because only through technology I'll be able to come out with more formulation. And I can also apply this in the manufacturing line.

Our factory is certified with the halal and good manufacturing practise (GMP) certification and we are also a BioNexus company.

Ultimately, high technology is critical in promoting Herbal industry. It is a promising market and has high potential. I urge for continuous supports from the government, especially in terms of grants, so that we can do more clinical study. We should also emphasis on herbal cultivation to ensure continuous supply for the local industry. We have all the advantages here in Malaysia I mean, why not take the opportunities and explore more? Plant more! Formulate and produce local quality product. I believe that one day the world will look for our products. But first, we have to believe in our herbs to bring it to the next stage.

Prof. Datin Dr. Clara L. CHEE Founder & Chairman CLARA International

Prof. Datin. Dr. Clara L. Chee is Malaysia's renowned cosmetologist, entrepreneur and lecturer who started her own beauty business since 1977. From a very humble beginning her beauty empire has expanded into South-East-Asia market known as the Clara International Beauty Group which encompassed herbal based skin care and beauty treatment product, beauty center franchisee and distribution ship and Aesthetic College.

She received her Degree in Science (Chemistry) from University of Missouri, USA in 1983. In 1990 she went to University of De Monfort, United Kingdom (formerly known as Leicester Polytechnic) to further knowledge and research in medicinal & Cosmetic Products Technology. She was later conferred the Honorary Doctorate (Ph.D) title in Cosmetic Science & technology in 1996 from Pacific Western University USA.

She also holds position as the Head of research & development for Best Cosmetics Laboratories Sdn. Bhd, President of Malaysian Beauty Therapy Association (MBTA), Chairman of CIDESCO Malaysian Section, Director of Artiste Academy, South East Asia and many others.

experts' insights



BY

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LINKING FORESIGHT TO ACTION: A HEALTH CASE STUDY



experts' insights

Summary

In Canada, a federal government department and a provincially owned research corporation have collaboratively implemented a major foresight initiative designed to anticipate future challenges and opportunities related to improving the health status of Canadians in a single generation (to 2030). The premise underpinning the project design was that simply conducting foresight activities is often insufficient to effect forward looking decisions or behavioural change. Foresight activities must be designed with the intent to take action. This paper focuses on the cumulative learnings about how to deliver foresight insights to key decision makers in a way that impacts present day decisions. The following is a summary of the key learnings from the Health Foresight Initiative that the authors consider useful contributions to the field of foresight.

1) Deep understanding of emergent complex issues takes multiple conversations spread over a sufficient period of time to allow reflection.

Several iterations of the large and small engagement sequence are required to achieve a deeper understanding of the forces and factors at play and how they interrelate. Arriving at recommendations that result in the implementation of complex adaptive management responses may require several months of ongoing work and provocative discussion.

2) Workshops that engage larger numbers of participants typically make only incremental contributions to current knowledge.

Large group events surface a plethora of ideas and perspectives but rarely generate more than incremental advances in thinking.

3) Highly innovative thinking is best done by small groups of high intensity creatives.

Certain dynamic thinkers have an innate ability to "reperceive" and challenge deeply held assumptions.

They produce the best work in small group settings but make valuable contributions in large groups through the introduction of provocative ideas.

4) Decision makers must be engaged both intellectually and emotionally.

The presentation of foresight findings in the form of a well-written rationale and strategic plan is not necessarily sufficient to ensure consideration by decision makers. Emotional connectivity must be established through the use of provocative engagement processes and multiple media (e.g., video, music, and voice) reporting and communication mechanisms.

5) The leadership of a major foresight project requires a complex and unique set of skills.

More than good management skills are required to design, organize and execute a major foresight event. The responsibility requires a unique combination of leadership, abstract thinking, experimentation and organizational abilities that has yet to be fully appreciated by many who commission foresight projects.

6) Development of a cascading communications strategy is critical for presentation of foresight findings to key decision makers.

Frequent cascading communications tailored to targeted decision makers expands the capacity of the recipients to embrace new ideas and commit to action.

- At the time of this writing, the insights and findings of the Health Foresight Initiative are being linked to key strategic decision making and planning processes within both participating organizations. At Health Canada, a set of recommendations for short, medium and longer term actions that will provide both quick results and business continuity have been presented through a series of presentations and publications. Alberta Innovates-Technology Futures has incorporated the findings into a corporate Health Research and Investment Strategy for consideration by the Board of Directors.

1. Introduction

Between December 2009 and March 2011, a major collaborative foresight initiative was undertaken by the Science and Technology Foresight Policy Division of Health Canada (a federal government department) and Alberta Innovates-Technology Futures (a provincially owned research institution). The project (referred to in this paper as the Health Foresight Initiative) involved the implementation of an iterative multi-faceted foresight process to gain new insights and understanding about science and technology investments that could be taken today, which would contribute to improving the health of Canadians in a single generation (to 2030).

The Health Foresight Initiative was conceptualized and designed to overcome the challenges related to translating the knowledge and insights gained from foresight activities into tangible recommendations that result in actionable decisions. Within the context of government bureaucracies,

powerful system-level impediments make the utilization of foresight findings for the purposes of public policy development difficult. In the demanding milieu of the public service, these constraints can limit the efficacy of foresight as a decision making tool (Macklin, 2010).

This paper is a report on the work of the Health Foresight Initiative. It explores the source of impediments to translating foresight insights into action and then goes on to describe the design considerations employed during the Initiative to overcome these real or perceived barriers. By presenting this case study, the authors hope to make a valuable contribution to a void in the literature related to linking foresight to actionable decisions.

1.1 Why It Is Difficult To Link Foresight to Action

Many organizations, including government, increasingly recognize the value of long-term thinking to inform strategic planning processes. However, a review of foresight literature indicates that the generation of new ideas and insights through strategic

conversations is insufficient to lead to action. In part, this may be due to the challenges of making decisions in the face of complexity, but it is also related to a perception by senior decision makers of risk and being overwhelmed. Acting upon these ideas and insights often requires significant system level transformations that challenge traditional approaches and decision making processes.

Research shows that human decision making in any complex context is difficult (Brehmer, 1992; Chermack, 2004; Dörner, 1996). Brehmer (1992) suggests that decision making in such contexts is often complicated by:

- 1) the requirement for a series of decisions rather than a single decision,
- 2) interdependence; in that current decisions constrain future decisions,
- 3) an environment that changes as a result of decisions made, and
- 4) the need for critical timing and correct ordering.

Furthermore, differing space and time perspectives may be expected to impact

experts' insights

decision making by bringing different approaches and priorities (Slaughter, 1993). In the realm of public service, decision making is particularly complex. To start with, every public policy has three key elements: problem definition, the setting of goals and outcomes, and the choice of policy instrument whereby those goals are achieved and the problems addressed (Pal, 2006). The choice of policy instruments must facilitate achievement of the desired goals and outcomes. Furthermore, horizontal alignment is required with other policy agendas that exist at the regional, national, and international level. Development of each element occurs at a different stage of the public policy making process and is in itself complex. Consequently, the more multifaceted the issue the more difficult it is to define the problems, set policy goals and make decisions about how to achieve the desired goals. This difficulty is particularly exacerbated when decisions made in the present must accommodate the changes and

More than good management skills are required to design, organize and execute a major foresight even

uncertainty that occur over long periods of time. The complexity of undertaking decisions in the public arena is further compounded by the capricious nature of politics. There is an expectation for a high degree of certainty that generally cannot be found when addressing such complex issues, which makes it very difficult for decision makers in the public service to undertake proactive decisions without incurring political risk. Increasing public scrutiny combined with the short electoral cycle means that elected officials are highly incented to deliver short term goods and benefits and delay the imposition of costs (Pal, 2006). "Generatively complex problems" (Kahane, 2004) that require sacrifice now for the delivery of benefits beyond the boundaries of the electoral cycle, present a politically unpalatable decision making dilemma.

Chermack (2004) identifies two other overarching categories of decision failure: 1) simple explainable error or mistake and 2) when the unusual happens and the guiding cognitive map and mental model is rendered obsolete. The first category

denotes the statistical reality that some error is inevitable. Failure of the cognitive map occurs when it becomes difficult for an individual to articulate what the environment requires because a system level discontinuity has occurred, making their mental model obsolete. Chermack (2004) describes the tendency of decision makers to either ignore or underestimate the contribution of disruptive internal and external systemic elements. Instead, decisions are often based upon by habit, conformity, social pressure, or personal interest.

The literature also asserts that the key to improving decision making and ultimately improving outcomes lies in changing or altering current mental models (Senge, 1990; Chermack, 2004; van der Heijden, 2005). As the clock speed of change increases and the decision making context becomes more complex and dynamic, the re-calibration of existing mental models becomes essential for good decision making. Wack (1985) stated that in order to operate in an uncertain world people needed a way to "reperceive" and question their assumptions about the way the world works, thereby changing the current decision making premise.

Despite the growing body of opinion that foresight activities can lead to the implementation of different (and ideally improved) courses of action, many key decision makers are still reluctant to incorporate foresight findings into their decision making processes. The foresight work described in this case study was undertaken as a means to help leadership "reperceive" the future of health and understand the forces and factors impacting the wellness of the next generation of Canadians. The Health Foresight Initiative was consciously designed and communicated so that senior decision makers in government can comfortably utilize the information generated to inform decisions about the future direction of health policy and related investments.

2. The Health Foresight Initiative Case Study

The Health Foresight Initiative involved the implementation of an iterative multi-faceted foresight process to gain new insight and understanding about how to improve the health of Canadians in a single generation. More specifically, the goal was to inform both lead organizations about innovative science and technology investments that could be made today that would improve population health outcomes in the future.

The Initiative involved approximately 250 stakeholders and professionals from the Canadian health sector. Project events were held in Ottawa, Ontario, Jasper, Alberta, and Montreal, Quebec. Table 1 presents the series of workshops that comprised the Health Foresight Initiative and their respective outcomes. Pertinent to the interpretation of the table is the labelling of events as either Engagement (E) or Innovation (I). Engagement events were characterized as being larger in nature and involving a multidisciplinary group of stakeholders mainly drawn from the health sector. Engagement events were designed to foster an understanding of the complexity of the issue, surface a variety of perspectives and ideas, and extend current avenues of dialogue as they relate to the future health of Canadians. The engagement events were particularly effective at creating mutual understanding and developing a common language amongst diverse stakeholders.

The innovative events involved a smaller number of highly innovative thinkers (see section on participant selection). These events were designed to challenge conventional opinion and push current thinking about how to improve health outcomes into uncharted territory. The ideas that surfaced were intended to be provocative and disruptive in nature and were used to stimulate new dialogue in the broader audiences of the engagement events and the health sector in general.

During the execution of the 16 month initiative, the project leaders also drew upon external sources of ideas and inspiration such as health sector meetings, publications, and conferences. Of particular significance was a conference hosted by the Institute for the Future Science and Technology Foresight in Palo Alto, California, USA. Participation in this event resulted in the identification of 16 specific science and technology advancements that could enhance human health. These findings were introduced into the Health Foresight Initiative dialogue for validation and consideration.

The last event of the Health Foresight Initiative at the McGill University World Platform Conference on Health, concluded on March 17, 2011. As of the writing of this paper, Health Canada and Alberta Innovates Technology Futures are in the process of developing key recommendations for presentation to executive within their respective organizations. Communication of these recommendations is expected throughout 2011 and 2012.

Table 1 Description of Health Foresight Initiative Workshops and Key Findings

Workshop Description	Type	No. of Participants	Key Findings
1. Trends and Drivers	E	90	<ul style="list-style-type: none"> developed the focal question developed mutual understanding developed a common language developed an understanding of the changing trends impacting human health in the next 20 years
2. Scenario Creation	E	40	<ul style="list-style-type: none"> determined which trends were most uncertain and highly impacting developed four plausible scenarios created an initial assessment of science and policy needs that may be required to adapt or provide service in each of the scenarios challenged current views and assumptions
3. Contradiction Oriented Problem Solving	E	35	<ul style="list-style-type: none"> identification of system level contradictions that will create tensions within the system identification of health solutions to resolve system level tensions
4. Jasper Innovation Forum	E	45	<ul style="list-style-type: none"> key insights and understandings about future research and investment opportunity areas in health related technology
5. Exploration of how technology may be utilized to improve the health of Canadians	I	10	<ul style="list-style-type: none"> conceptualization of the Health Conveyor Model (See section 5 for description)
6. Development of a new framework for enhanced health outcomes	I	10	<ul style="list-style-type: none"> conceptualization of a new framework for health care delivery in Canada based on the Health Conveyor Model. exploration of how technology can be applied to improve health outcomes
7. McGill University World Platform on Health Conference	E	55	<ul style="list-style-type: none"> share and validate the Health Foresight Initiative findings with a critical audience
E= large engagement		I = small innovation engagement	

3. Methodology

Simply conducting foresight activities is often insufficient to affect forward looking decisions or behavioural change. It was the thesis of the project leaders that by recognizing the challenges faced by decision makers and designing the process in response, the efficacy of the Health Foresight Initiative would be significantly enhanced. Key design considerations for linking foresight to action included:

- 1) project leadership
- 2) design of the process
- 3) designing for engagement
- 4) designing for innovation
- 5) designing for communications

Consideration of these five aspects was essential to derive good foresight insights and empower transformational decisions related to the application of science and technology for improving human health.

3.1 Project Leadership

In the authors' opinion, the competencies required to execute a successful foresight project are worth noting here. They extend well beyond simple project management to include the ability to lead a diverse group

of people through often highly sensitive conversations and then deliver provocative and potentially disruptive findings to an often less than receptive audience of decision makers who may be deeply uncomfortable questioning embedded assumptions about the future.

Like many other high level deliberative processes, addressing the future requires strong communication skills, the ability to multitask, creative thinking and the flexibility to adapt to changing circumstances including resource availability. Leaders of major foresight initiatives must apply the tools of complex adaptive management (Porter & Kramer, 2011). This approach entails an understanding of the benefits of planning accompanied by the flexibility to maintain the focus on the future, make mid-course corrections to fulfill the project objectives and respond to new information and developments as they arise.

Despite the fact that most foresight projects typically have common elements (diverse stakeholders, collaborative engagement, etc.), a depth of experience and knowledge is required to choose foresight methods appropriate to the organizational context and the issue at hand. It is essential that leaders of foresight work have the ability to

think critically about the way the future is described and develop innovative linkages to present day realities. Foresight is in itself, a disruptive technology. Thinking about a radically different future than has been complacently assumed, challenges people and organizations at profoundly deep levels. Furthermore, there is a delicate balance and potential tension between pervayers of conventional wisdom who have invested interests in maintaining the status quo and the attributes of emergent new systems that may be described during the foresight process.

In order to maintain the commitment of participants to the foresight process it is necessary to build an environment of trust. Skill is required to negotiate highly sensitive conversations that challenge deeply embedded assumptions and mental models about the future. To provide participants with the level of comfort and safety needed for such open and frank conversations, all events of the Health Foresight Initiative were conducted under Chatham House Rule, which granted anonymity in written reports and conversations or presentations conducted outside the workshops.

experts' insights

3.2 Design of the Process

The design of the Health Foresight Initiative involved a complex set of considerations to increase the likelihood of the findings being converted to action. These included:

- defining the focal question,
- choice of foresight methodologies,
- size of the workshops and facilitation,
- budget and logistics
- choice of participants, and
- the communication strategy

3.2.1 Defining the Focal Question

The cornerstone of any foresight initiative is the focal question. A well-conceived focal question sets the tone and scope of the entire foresight initiative. If the focal question fails to convey the appropriate information, the ensuing conversation may fail in depth, scope and organizational relevance. The focal question in this case study explored "How to improve the health of Canadian's by 2030 (in a single generation)". It was designed to ensure a full exploration of the forces and factors that are affecting the health of the Canadian population now and into the future. Current health sector dialogues in Canada are dominated by discussions about the sustainability of the publicly funded health care system. It was a major challenge for the project leaders to move the discussions of the Health Foresight Initiative beyond this present-day anxiety. The focal question was carefully phrased to encourage consideration of the current Canadian health care system as only one of a suite of factors that can contribute to improving the health of Canadians. By referring to a single generation, the focal question implicitly encouraged participants to think about maintaining life-long health rather than how effective the health system is at curing those who are ill. Other key requirements were that the focal question:

- was an open-ended yet focused inquiry;
- did not suggest or lead to a specific "right" answer;
- contained emotive force and was intellectually stimulating;
- was succinct but challenging; and
- was relevant to the participants involved.

3.2.2 The Choice of Foresight Methodologies

The choice of foresight methodology employed at each workshop was guided by the the cumulative findings from previous workshops and the level of engagement appropriate for the participants invited. The workshops were consciously designed to move participants out of their comfort zone, which often provokes emotional response. This was important because emotive moments

An early step of the communication strategy was definition of specific communications parameters for targeted decision makers

often signal that participants are in the process of recalibrating their mental models. The Health Foresight Initiative involved the organization of seven different workshops (See Table 1). The strategic design considerations for each are discussed below.

1) Trends and Drivers Workshop

The Trends and Drivers workshop was the introductory event of the Health Foresight Initiative. This was an exploratory exercise, the purpose of which was to vet the topic with stakeholders in the health sector and begin to build a common language and understanding about the forces and factors that would be impacting the health sector and by default, the health of Canadians, in the longer-term.

2) Scenario Creation Workshop

The Scenario Creation Workshop was a foundational piece of work in the Health Foresight Initiative. The purpose of this workshop was to challenge the deeply embedded assumptions that exist in the Canadian health sector about current health care delivery and how the future health outcomes of Canadians may be impacted by technology. Using the trends and drivers identified in workshop one, four distinct but linked narratives were created about the health of Canadians in 2030. The process of creating these narratives served to build solidity amongst the participants about the challenges to be addressed if the health outcomes of the Canadian population are to improve over the next twenty years. In addition, the scenarios provided an opportunity to test current strategies and discuss possible adaptive management responses against a range of possible future outcomes. Achieving this allegorical understanding was useful as it validated the relevance of the focal question and forced preliminary exploration of disruptive or transformational solution sets.

3) Contradiction-Oriented Problem Solving Workshop

Contradiction-oriented problem solving is focused on finding fundamental contradictions within a system, identifying the core problems, and finding innovative solution

sets by applying experiential knowledge. The intent was to examine how science and technology can enable a response to current and future challenges. The approach is based upon the work of Russian scientist, Genrikh Altshuller(1984). This approach was chosen for the third workshop of the Health Foresight initiative because project leaders recognized that foresight events need to stimulate conversations and debates about various dimensions of the problem. The scenarios created in workshop two were used as the basis for identifying emerging tensions within the Canadian health system. The workshop was intended to bring about moments of creative tension as it is through this tension that individuals often become aware of the need for action.

4) The Jasper Innovation Forum

The Jasper Innovation Forum engaged an entirely new group of participants. At this workshop, the conversation was purposely focused on improving child and maternal health. The objective was to produce a set of general recommendations for future areas of technology research investment. Participants were broken into groups and tasked with answering specific questions (drafted by the project leaders) about the role of technology in improving future health outcomes for Canadians. Opportunity was provided for presentations by each of the groups followed by a plenary discussion of the implications of those findings for improving the Health of Canadians.



experts' insights

5) Workshop on How Technology May Improve the Health of Canadians

The first four workshops of the Health Foresight Initiative were all large engagement processes. While each surfaced many ideas, the level of innovation that emerged was only incremental and to some degree, repetitive between events. To move beyond this plateau a group of ten highly innovative thinkers were invited to a one day brainstorming session. The purpose of this workshop was to synthesis the dialogue from the previous events, focus on the most salient findings and apply them in an innovative way to the focal question. The result of this work was the conceptualization of a completely new model of health needs assessment called the Health Conveyor Model.

6) Workshop on the Development of a Technology Supported Framework for Enhanced Health Outcomes in Canada

The sixth workshop of the Health Foresight Initiative reassembled six of the ten people involved in workshop five, plus four new participants. This was an intense and fluid two day discussion focused specifically on the identification of technologies required to empower individuals to take control of their own health and enable caregivers to support those who are unwilling or unable to help themselves. This workshop was a watershed event. It represented the first time that the conversation shifted to discussion of what an emergent new health delivery system might be like, as opposed to the previous focus on extensions of the status quo. The work resulted in the articulation of a new framework for enhancing the health of Canadians and an understanding of how deployment of sensors and web-based technologies could positively impact the management of five chronic conditions including obesity, mental health, diabetes, aging and cancer.

7) Workshop at the McGill University World Platform Conference on Health

The purpose of holding the seventh workshop as part of a McGill University conference was to present a new approach to improving health outcomes that recognizes self-empowering technologies as essential tools for maintaining the life-long health and wellness of Canadians. By inviting comments from a critical audience of academics and health professionals in the prestigious setting of McGill University, the recommendations that emerge from the Health Foresight Initiative have enhanced credibility.

3.2.3 Size of the Workshops and Facilitation

One of the hard but crucial aspects of a foresight process is to find ways of thinking

about systemic change and questioning current assumptions. This requires a careful sequencing and comparison of disruptive ideas with current assumptions. During the Health Foresight Initiative two types of workshops were strategically employed; large engagement events that promoted incremental advances in current thinking and smaller high intensity events intended to developed disruptive and provocative new ideas. By combining the two types of events, the depth and complexity of the ideas generated was increased and the probability of consideration of those ideas by key decision makers was enhanced. Professional facilitators were hired for all the workshops of the Health Foresight Initiative but they played a much subtler role in the innovation workshops so that fluid spontaneity was not lost.

3.2.4 Budget and Logistics

Collaboration between Health Canada and Alberta Innovates-Technology Futures leveraged the leadership experience and financial contributions of each organization. The combined budget was sufficient to afford the hosting of the workshops in various locations across the country, which created the opportunity to involve a greater number of participants and incorporate a broader spectrum of expertise and knowledge.

Thinking about a radically different future than has been complacently assumed, challenges people and organizations at profoundly deep levels

The large engagement processes were the most costly events of the Initiative because they occasionally required paying for participant travel, and required more staff time, hospitality costs, and the rental of event facilities.

3.2.5 Selecting Participants

The choice of participants at each stage of the Health Foresight Initiative required careful consideration on the part of the project leaders. Depending upon the size and purpose of the workshop, different knowledge sets and capacities were required. For that reason participation at all events was by invitation only.

The largest events were the Trends and Drivers workshop, the Scenario Creation workshop, the Jasper Innovation Forum, and the workshop at the McGill University World Platform Conference on Health. The project leaders felt that in these large engagements the best work would be done by participants who had strong competencies in integrating and synthesizing knowledge from a number of disciplines, had good analytic skills, and who were skilled in inter-personal collaboration and communication. To minimize the chance of group bias, it was important to assemble a multidisciplinary group of participants who could bring a variety of knowledge and perspectives to the conversation. To create the appropriate balance of positions and ideas, a mix of subject-matter experts, innovative thinkers and creatives was selected. Special effort was made to solicit participation from the arts, civil society, the humanities, and other non-health related disciplines. A crucial requirement of all participants was that they exhibit an ability to question their own assumptions and suspend disbelief.

Several of the participants in the large engagement events were people of influence in the health sector and who were senior decision makers within their respective organizations.

These individuals had the greatest potential for translating new insights and knowledge gained from the foresight work into tangible present-day decisions and actions. Furthermore, they raised the profile of the initiative and could influence the thinking of others who did not participate. The project leaders considered the inclusion of key decision makers in the large events as crucial to ensuring broader acceptance and ultimately careful consideration of the findings for decision making and strategic planning purposes.

Project leaders also made special effort to attract several individuals who are uniquely suited to doing foresight work. The fondly dubbed title of "wing-nut" (Soroka, 2010 personal communication) was given to this type of participant for their uncanny ability to deal with dialectics and multiple solution sets, critical thinking skills, and propensity to generate provocative new ideas. These hyper-innovators have a habit of looking for new ideas and information, not just in their field and areas of focus but also across many other disciplines. They have an innate ability to make abstract linkages in ways that quickly challenge the status quo and advance current thinking. Because they were often the source of radical new ideas, inclusion of these "remarkable people" (Schwartz, 1991) in the large engagement events provided important intellectual

experts' insights

stimulation. In the smaller innovation workshops, the ability of these participants to navigate complex systems, creatively link concepts, and then translate this new knowledge into actionable recommendations was of paramount importance.

The purpose of the Health Foresight Initiative was to inform science and technology investment decisions taken today in order to improve the health outcomes of Canadians over the next twenty years

3.3 Designing for Engagement

The large engagement events of the Health Foresight Initiative were characterized as facilitated workshops typically involving over 40 diverse stakeholders. Large amounts of ideas and dialogue were generated at the engagement workshops. Participants tended to be deeply knowledgeable individuals with the ability to recognize a good idea, adapt it, and implement it if they desire. An understanding of the complexity of the issue was forced by preventing premature consensus through the exploration of second and third order consequences. The expectation was that participation in the engagement workshops would expose a large number of influential people to a plethora of perspectives and ideas that originated outside their respective areas of responsibility and expertise. This exposure would challenge their current assumptions about the forces and factors that could impact population health by 2030 and build anticipation for release of the Initiative findings and recommendations.

3.3.1 Designing for Innovation

Small groups of highly motivated people are often most able to generate radical new ideas. Consequently, participation in the two smallest workshops of the Health Foresight Initiative was purposely restricted to ten people, many of whom were drawn from the pool of hyper-innovators. These innovation workshops were designed to be intense and creative exchanges that consolidated previous dialogue into innovative new concepts. The purpose of both was to synthesize highly innovative policy and investment recommendations from the dialogue of the first four events.

3.3.2 Designing for Communication

From the onset, project leaders recognized the need for a determined communication strategy targeted at senior executives, health industry leaders and strategic partners. Drawing from the field of knowledge management, a "cascading" (Snowden, 2010) communication strategy was developed that entailed ongoing presentations about the progress and findings of the Health Foresight Initiative. It was based upon the premise that it is easier to introduce new ideas gradually, versus a mass delivery all at once. This type of "cascading" communication is intended to expand the recipient's zone of proximal development (expansion of thought from one's initial position). The premise being that gradual uptake and expansion of understanding allows time for reflection and absorption of new concepts, building the receptor capacity of the target audience. Deployment of a cascading communication approach was very effective at maintaining the profile of the event over a 16 month period and building anticipation for the project recommendations amongst key decision makers.

An early step of the communication strategy was definition of specific communications parameters for targeted decision makers. Analysis of their thinking process, language used, motivators, past actions, and case studies where they were inspired to act allowed articulation of the foresight findings in terms relevant to that decision maker's context. A report was generated upon completion of each workshop, accompanied by a number of other tailored communication tools such as briefing notes, concept papers and power-point presentations. Short video presentations were created of the four scenario narratives generated in workshop 2. Through the use of music, images and voice decision makers were emotionally engaged in these fictional futures in a way not possible through the written word.

A second communication consideration was related to participant engagement. The ability to attract the right participants is essential for successful foresight activities. Project leaders recognized the participant invitations provided an opportunity to build expectation and raise the profile of the Initiative, given that many of those invited were also key decision makers. Invitations were accompanied by a short concept paper that presented the focal question and discussed future health related challenges. To make attendance more attractive, each invitation articulated a value proposition for the invitee, i.e., the ability to interact with other leading thinkers from the health sector and exposure to leading edge thinking.

Throughout the Health Foresight Initiative, project leaders capitalized on as many opportunities as possible to present findings to internal and external audiences. Comments and feedback received during these presentations were used to refine the communication process. Targeted communications about the Health Foresight Initiative findings will continue at Health Canada and Alberta Innovates-Technology Futures throughout 2011 and 2012 to ensure that the insights and findings continue to be actively incorporated into ongoing planning processes.

4. Health Foresight Initiative Findings

Four major insights emerged from the Health Foresight Initiative:

- 1) Technology can empower individuals to take greater responsibility for their own health. Through personal data tracking and sharing capacities, engagement in social networks and access to health and lifestyle information on the internet, individuals are able to become proactive partners with physicians, communities of interest, and other health care service providers for illness prevention, treatment and wellness enhancement.
- 2) Health care professionals are now able to provide many health related services to consumers and patients anywhere in the world. Conversely, Canadians have unprecedented access to a vast array of health care services (and products) from outside the public funded health care system. Severing the geographic link between patient and physician is a 'game changer' for the Canadian public health care system.
- 3) The ability to interpret and act upon the increasing plethora of health related data and information will depend upon the ability of the user to validate and understand its implications. The inappropriate applications and use of data and knowledge by individuals, health care professionals and organizations is an emerging challenge.
- 4) Improving the health of Canadians will require the engagement and commitment of Canadian society in general. Government cannot achieve this objective in isolation. Three factors emerged as particularly significant to Health Canada and Alberta Innovates-Technology Futures during the Health Foresight Initiative; (i) the need to broaden the definition of, and approach to, health and wellness, (ii) the need to recognize the individual as a full partner in maintaining health and wellness and (iii) the paramount role of digital technologies in improving the health outcomes of Canadians. More specifically, the findings of the Health Foresight Initiative indicated that priorities must be given to investment in science and technology areas that:

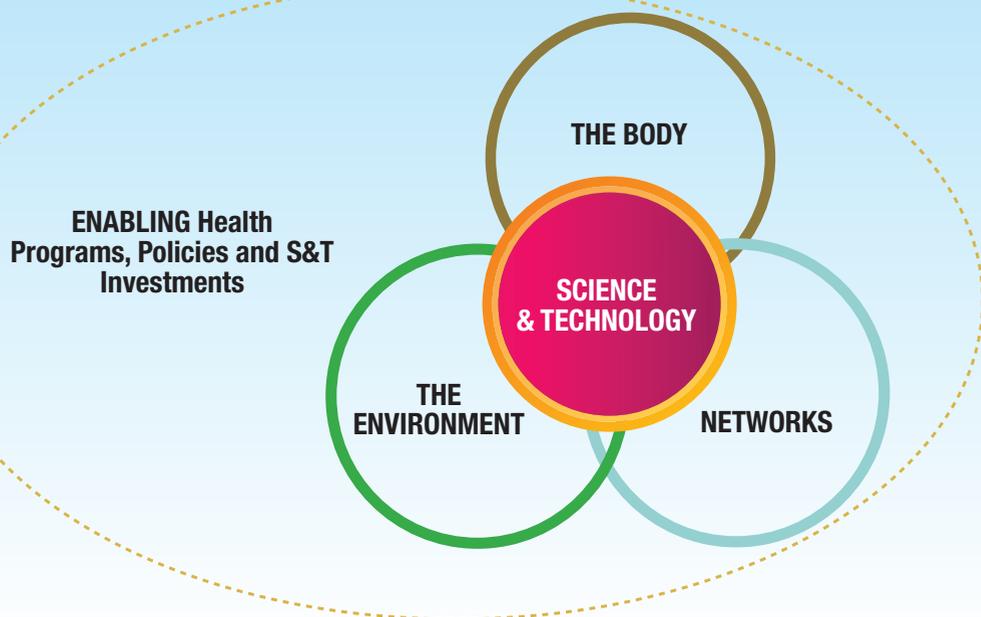
experts' insights

- directly affect the health of the body; i.e. bio-medical monitoring devices
- enables the development and implementation of networks supporting enhanced health systems and that improve integration and sharing of health information, i.e. electronic health records.

- facilitate monitoring and analysis of environmental influences, enhances environmental quality and improves research capabilities, i.e. networked ubiquitous sensing devices for bio-medical and environmental data collection.

Science and technology that integrates all three areas should become policy and investment priorities (see Figure 1). Furthermore, future health policy and investment decisions should be directed toward the creation of an enabling environment that promotes and encourages healthy living as well as the treatment of illness.

Figure 1 Health Science and Technology Policy and Investment Priority Areas



5. CONCLUSIONS

The purpose of the Health Foresight Initiative was to inform science and technology investment decisions taken today in order to improve the health outcomes of Canadians over the next twenty years. To increase the likelihood of the findings and insights being used to inform strategic decisions, the project design incorporated an iterative and integrated process of foresight engagement, innovation and communication.

This robust foresight project design fostered innovative new ideas and solution sets that are (at the time of writing) being communicated to broad audiences of health sector leaders and stakeholders for consideration. Early indications are that these findings have been positively received by key decision makers. They will continue to be incorporated into the strategic planning and decision making processes of Health Canada and Alberta Innovates-Technology Futures over coming months.

References

1. Altshuler, G. (1984). *Creativity As an Exact Science: The Theory of the Solution of Inventive Problems*. New York, USA: Gordon and Breach Science Publishing.
2. Brehmer, B. (1992). Dynamic decision making: Human control of complex systems. *Acta Psychologica*, 81, 211-241.
3. Chermack, T. (2004). Improving decision-making with scenario planning. *Futures*, 36, 295-309.
4. Dorner, D. (1996). *The Logic of Failure: Recognizing and Avoiding Failure in Complex Situations*. Reading, MA: Addison-Westly.
5. Kahane, A. (2004). *Solving Tough Problems*. (1st ed.) San Francisco, CA: Berrett-Koehler Publishers Inc.
6. Macklin, L. (2010). *Case Study Analysis of the Efficacy of Scenario-based Planning as a Public Policy Formulation Tool*. PhD Thesis: University of Calgary.
7. Pal, L. (2006). *Beyond Policy Analysis: Public Issue Management in Turbulent Times*. Toronto, Ontario: Thompson Nelson
8. Porter, M & Kramer, M (2011). *Creating Shared Value: How to Reinvent Capitalism and Unleash a Wave of Innovation and Growth*. *Harvard Business Review*, Feb, 62-77.
9. Schwartz, P. (1991). *The Art of the Long View*. New York, New York: Doubleday.
10. Senge, P. (1990). *The Fifth Discipline*. (1 ed.) New York, New York: Doubleday.
11. Slaughter, R. A. (1993). *Futures Concepts*. *Futures*, 25, 289-314.
12. Snowden, D. (2010). *Cascading Communication Processes*. *Cognitive Edge Newsletter [On-line]*. Available: <http://www.cognitive-edge.com/newsletter.php>
13. van der Heijden, K. (2005). *Scenarios: The Art of Strategic Conversation*. (2nd ed.) Chichester, West Sussex, England: John Wiley & Sons, Ltd.
13. Wack, P. (1985). *The Gentle Art of Reperceiving*. *Harvard Business Review*, 63, 72-139.

cover story

Preserving HEALTH@Home: a LIFESTYLE That Pays



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Discussions on the healthcare services in most developing countries underlined some issues and challenges with regards to:

- rising income leads to demand for a better quality of life via quality-oriented healthcare services,
- increased supply of healthcare services to cater for the increased number of aging population and changed in lifestyles,
- prevention and control of non-communicable and chronic diseases caused by modern lifestyle,
- demand for increased accessibility of care outside hospitals, moving health services into the patients' own homes; and
- the need for services efficiency, personalisation and quality healthcare, and the constrain of limited financial resources.

Home service is the fastest growing trend in healthcare. Cost plays a major role in promoting this trend. Limited resources and increasing healthcare costs have led to proposals to expand home care services. More individuals are self-managing their health and preference for healthcare at home rather than in public or private hospitals increases.

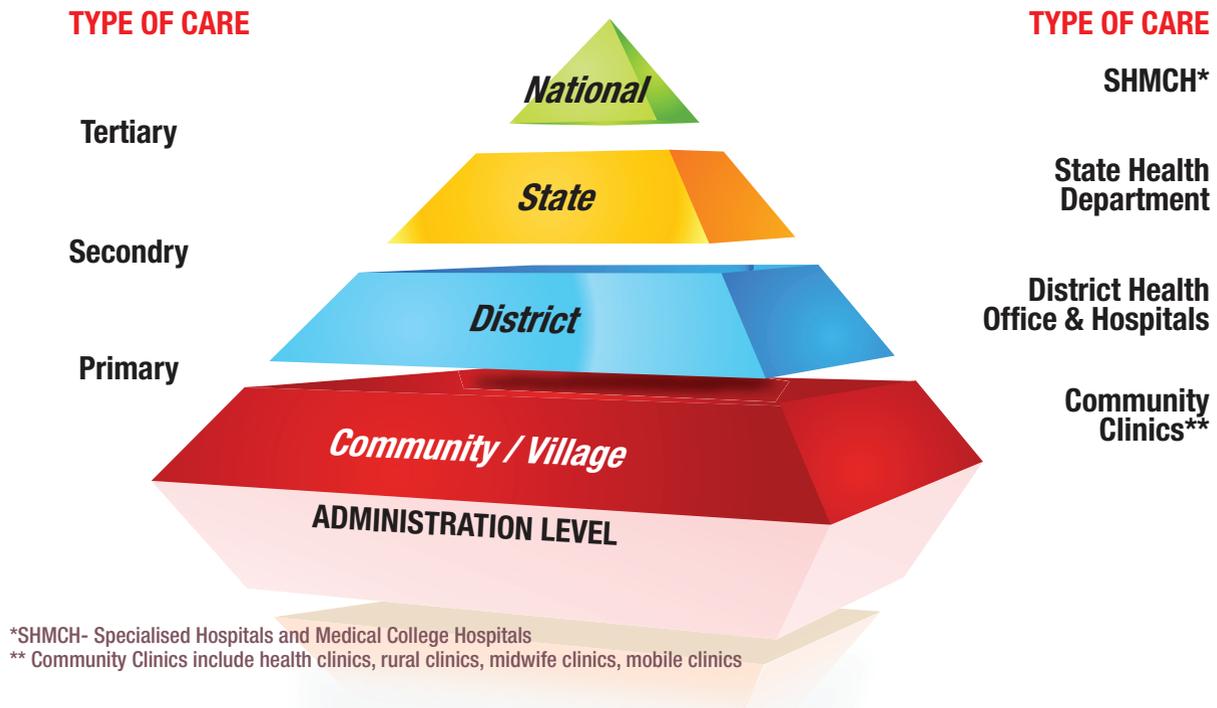
Modern lifestyle has made knowledge and skills in information and communication technology (ICT) essential. The rapid development of ICT offers huge possibilities for the future, particularly in the healthcare

sector. Technological developments create opportunities for people to get medical consultations and advices from the comfort of their homes. At the Forsyth Medical Center in Winston-Salem, North Carolina, nurses can monitor lives of some diabetes patients even when they're not at the clinic using an app called Gingerio. These modern technologies are utilised at hospitals in most developed countries. IBM stated that the combination of residential care and home healthcare contributed \$45 billion to the industry and is projected to continuously grow¹.

In Malaysia, the cost and quality of healthcare has improved. However, the adoption of technology for healthcare at home, which is relatively new, is still at an

infant stage. The development for the adoption of home healthcare technology has been slow and unplanned. Although there are initiatives and experiments in this area by public and private initiatives, they are hindered by several factors such as lack of an integrated home care system and the unavailability of suitably trained technicians.

Home healthcare, in its traditional form, has existed in Malaysia for several years. Malaysians from all walks of life get home visit services to care for women after giving birth and newborn babies. Apart from post natal treatment, mothers are given medical advices and lessons on childcare by government midwives and nurses that visit their homes.

Figure 1 Hierarchy of public health care system in Malaysiaⁱⁱ

Home medical care in Malaysia has evolved. Not only new mothers and babies, but the elderly and general patients are also reaping the benefit of home visits by government medical staffs. And, as home care technologies improve, the benefits will spread to all – not only modern mommies, the elderly and general patients, but informal caregivers, medical professionals and medical organisations too. Receiving healthcare at home soon will become common.

Current healthcare environment is characterized by three major problems: accessibility, quality, and cost

Trend 1: Home as a Centre for Future Healthcare

Naomi Fired, vice president of Kaiser Permanente in 2009, forecasted that by 2015 the home will be the hub of healthcare. His optimistic view for the demand of home healthcare at home was based on and driven by the opinion of Dr Steven Landers who listed five primary forces that will push for home medical care. The five primary forces are aging population, rapid development of ICT, increase medical cost, privacy and personalisation, and patients' convenience.

The increase of aging population increases the need for specialised medical attention. Studies have shown that an elderly person faces a higher probability to suffer chronic diseases such as cardiovascular disease (CVD)ⁱⁱⁱ. CVD patients often need constant care and attention, thus the need for home medical care.

The rapid development of ICT accelerates the adoption of home tele-health care technology^{iv}. Tele-health care focuses largely on remote patient monitoring. In this capacity, Tele-health care allows for improved quality of life for many patients suffering from chronic conditions.

Apart from meeting the driving goal in healthcare – improving the quality and accessibility to the medical treatment, Tele-health is cost effective.

The cost of healthcare is rising faster than the levels of available public funding, thus increasing the need for home healthcare. A study done by Economist Intelligence Unit identified the main drivers of rising healthcare costs in Europe as^v:

- Aging populations and the related rise in chronic diseases.
- Costly technological advances.
- Patients' demands, driven by the increased knowledge of options and less healthy lifestyles.
- Legacy priorities and financing structures that is ill-suited to today's requirements.

Limited capacity of the health facility and cost constrained drives patients to consider home healthcare. Medical care at home provides considerable advantages to consumers or patients, such as:

- **Accessibility and cost benefits.** Population growth will change the health delivery system. Today, almost everyone owned mobile devices that can be integrated with the healthcare monitoring systems using wireless mobile communication network technology that provides greater accessibility, freedom, portability and convenience, especially to elders and patients at homes. The long-term cost of medical and healthcare services can thus be reduced and, eventually, the overall quality of healthcare services can be improved.

- **Personalisation.** Healthcare at home provides convenience and privacy to the patients. This is part of consumers' preferences that demands for personalised services.

- **Cost concerns.** Higher demand for healthcare services will result in increase of costs of medical and healthcare. The situation is also worsened by the absence of competitive market. Most patients are shifting towards home healthcare as a measure to minimise cost.

Current healthcare environment is characterized by three major problems: accessibility, quality, and cost. All three are interrelated to one another. They influence the patient to decide where and when to get treatment – public medical facilities, private hospitals and clinics, or at home. Private and public healthcare providers seek to integrate healthcare services in order to improve quality and ensure affordability to all, whilst patients will look for convenient health care services that offer cost benefits to them.

cover story

Trend 2: Acute Care at Home

Two defining features that encourage home healthcare market are the predominance of 'for-profit facilities' and the perception of low quality care in many public facilities^{vi}. Home hospitalisation services (HHS), already being used in many developed countries such as Italy, Australia, Canada, England and Israel, become the alternative. The shift towards a hospital-at-home model is meant for specific patients and medical conditions that need to be supported by clinical research. HHS basically allows for diagnostic and therapeutic interventions, commonly carried out at the hospital, to be performed at home. It has been projected that, in the next twenty years, 46% of Americans who survive to the age of 65 will use home healthcare at some point in their lives^{vii}.

Conditions treated by a commercial venture in US called Clinically Home includes pneumonia, chronic obstructive pulmonary disease (COPD), heart failure, asthma, cellulitis, urosepsis and deep vein thrombosis^{viii}. In Italy, HHS has been operating in Turin since 1985. It started with a stroke care project. Stroke is consuming 5% of all hospital resources^{ix}.

However, there are obstacles faced in HHS programs. Currently, insurers are reluctant to provide reimbursement and not many physicians are keen to invest time and resources in this program.

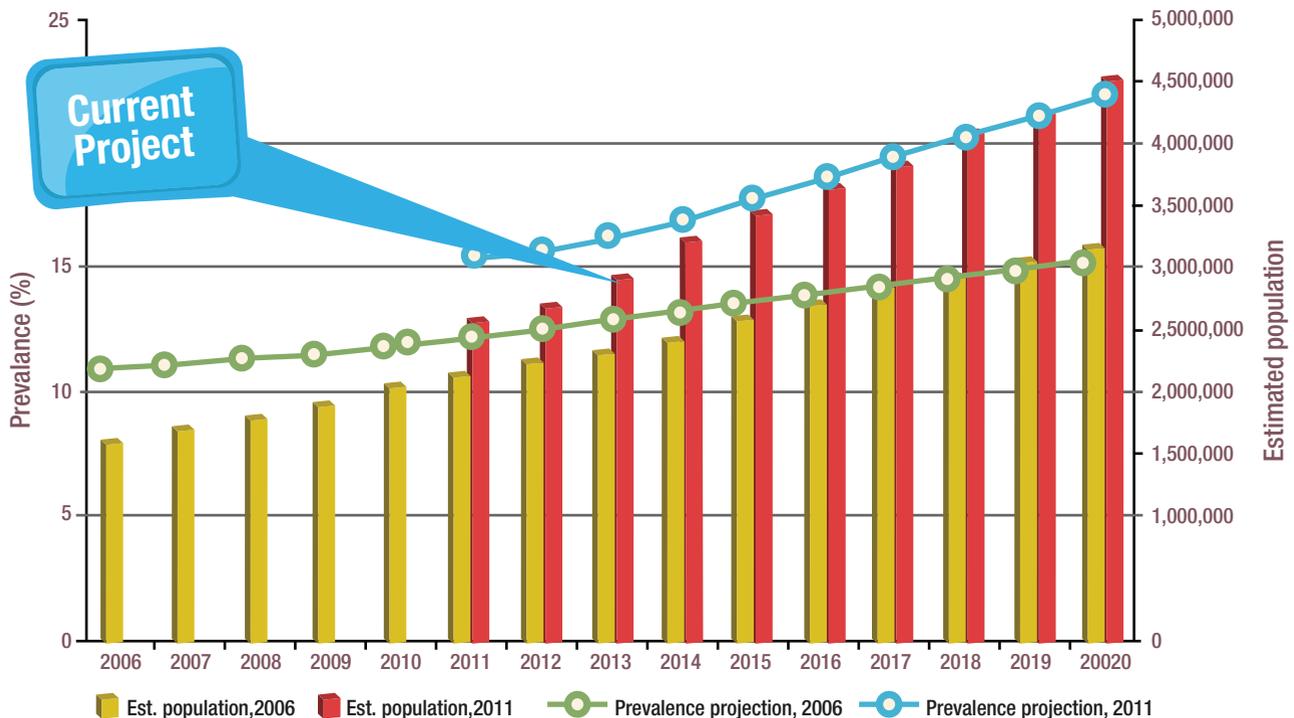
Trend 3: Home as Centre of Wellness and Prevention

The constant improvement of healthcare extends life expectancy. On the other hand, infectious diseases and lifestyle diseases such as diabetes may mean a downturn in life expectancy. As the old

adage goes: Prevention is better than cure, the prevention of health problems through healthy lifestyles is more effective than the increasing use of medicines. Exercise is the best prescription and, for many busy individuals, the option is to exercise at home.

Technological developments create opportunities for people to get medical consultations and advices from the comfort of their homes

Figure 2 Burden of Diabetes in Malaysia: Adults age 18 years & above^x



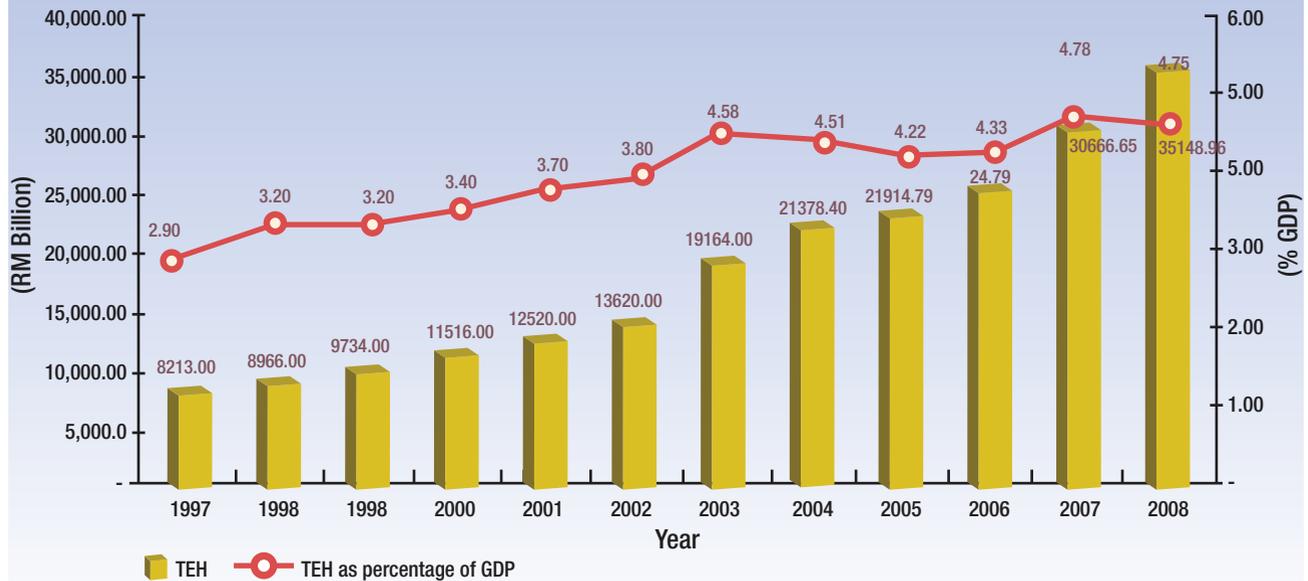
The two main factors that would make home the centre for wellness and prevention of illnesses in the next decade are:

- **Prevention vs. cost for healthcare.** In most OECD countries, the share of gross domestic product devoted to healthcare expenditures has grown. Rising costs in healthcare will be inevitable. Per capita, the United States' expenditure for healthcare is about three times the amount allocated by Finland. Total health expenditure as percentage of GDP in Malaysia is increasing – more than three folds.

Disease prevention is definitely important: 40% of deaths in the United States are considered preventable^{xii}. The application of preventive practices across the lifespan will minimize risk factors and improve survival as well as quality of life. Prevention services can be in various settings, including the home^{xiii}.

- **Real-time health monitoring.** Prevention of disease involves testing and screening. It is essential to prevent, avoid or predict future illness. This requires the implementation of health-related ICT that provides more cost-effective

healthcare. Research Specialist Rob Kaminsky suggests that 'the Advanced Remote Patient Monitoring Systems allows physicians the ability to monitor and record everything from basic vital signs to cardiovascular and respiratory issues. This keeps patients out of the hospitals and in their homes where they are more comfortable unless actual treatment is needed^{xiv}. However, adoption of technology by older adults is still limited. Health-related ICT for the elderly is suggested to be kept simple and able to demonstrate significant benefits to them^{xv}. Familiarisation of the

Figure 3 Total Expenditure on Health, 1997–2008 (RM, Nominal Value)^{xi}

technology via training and courses will increase the level of awareness and encourage the adoption of health-related ICT.

Trend 4: Special Care for Elderly at Home

Older persons represent the largest and most active population of healthcare and medication consumers. Most elderly people who need special care are living at home, sometimes alone and unassisted. The influencing factors for 'senior living' are:

- **Accessibility to the quality healthcare:** As the number of 'empty-nest' elderly rises in the country, ensuring accessibility to the quality healthcare is a public health concern. The modern social community called an 'empty-nest' elderly is usually categorised as a group who had higher income but less social support. This segment of the population has a higher prevalence of chronic diseases. They also had higher home healthcare needs and were willing to pay for home healthcare.
- **Increasing health literacy** of the population results in an exponential increase in public expectation for health care in most countries. In countries where healthcare budget is unable to keep up with the demand, healthcare services suffer. Facilities and services at public medical centres do not satisfy the population and services and treatment at private hospitals and clinics are expensive. As a result, more and more people are resorting to home healthcare.
- **The availability of and access to primary healthcare.** Primary care is the typical way patients access the healthcare system. Studies

show that the potential access to primary care is greatly dependent on spatial and aspatial dimensions of access^{xvi}. The expanding linkages between the healthcare institution and senior living providers such home care, clinic and rehab providers provide a network of care services that begins in the home while also offers residential facilities when needed^{xvii}.

Recent reforms have demanded a competitive market-driven approach to healthcare. Cost, time and technology readiness will remain as the major concern to consumers. Various strategies has been outlined to increase health services to the public, including transfer of patients directly to home, early discharge, the increase of same day surgery, transfer of elderly patients to low-intensity care settings and a variety of home-care initiatives such as Home Hospital or Hospital in the Home.

Changes in consumers' behaviour and preference towards healthcare services that can provide personalisation, convenience, effective option, costs concern, accessibility and literacy improvement in health-related ICT will further boost the demand for home healthcare as well as alter the delivery system for healthcare services. These changes have inspired some delivery system innovations. Medical clinics are appearing in retail stores. Physician house calls are making a comeback. These innovative access approaches offer important benefits if they are well executed and the systems fully integrated.

References

- i. 'Redefining Value and Success in Healthcare'. February 2012, <http://www-935.ibm.com>.
- ii. S.S. Radiah Shariff, Noor Hasnah Moin and Mohd Omar. 2012. Location allocation modeling for healthcare facility planning in Malaysia. *Computers & Industrial Engineering*; 62: 1000-10
- iii. Naughton C., Bennett K., Feely J. 2006. Prevalence of chronic disease in the elderly based on a national pharmacy claims database. *Age Ageing*; 35(6):633-6.
- iv. Koch S. Home tele-health — current state and future trends. *Int J Med Inform* 2006;75(8):565-76.
- v. 'The future of healthcare in Europe'. March 2011, <http://www.managementthinking.eiu.com>.
- vi. Grabowska D.C., Feng Z., Hirth R., Rahman M., Mor V. 2013. Effect of nursing home ownership on the quality of post-acute care: An instrumental variables approach. *Health Economics* 32:12–21
- vii. Spillman, B.C., Lubitz, J., 2002. New estimates of lifetime nursing home use: have patterns of use changed? *Medical Care* 40 (10), 965–975.
- viii. 'About Us', Clinically Home, viewed June 2013, <http://clinicallyhome.com>
- ix. Dobkin, B. 1995. The economic impact of stroke. *Neurology*; 45: 56-60
- x. Global Science and Innovation Advisory Council Malaysia. Non-Communicable Diseases (NCD) in Malaysia. 2012. Malaysian Industry-Government Group for High Technology.
- xi. Malaysia National Health Accounts: Evidence to, Time for Change. 2009. Ministry of Health, Malaysia.
- xii. McGinnis JM, Williams-Russo P, Knickman JR. 2002. The case for more active policy attention to health promotion. *Health Affairs*. 21 (2):78-93.
- xiii. National Prevention Council, 'National Prevention Strategy' 2011. US Department of Health and Human Services, Office of the Surgeon General, www.healthcare.gov.
- xiv. 'Telemedicine and the Future of Healthcare IT'. May 2013. <http://blog.marketresearch.com>
- xv. Heart T., Kalderon E. 2011. Older adults: Are they ready to adopt health-related ICT? *Medical Informatics*. 1-23
- xvi. Bissonnette L., Wilson K., Bell S., Ikram Shah T. 2012. Neighbourhoods and potential access to healthcare: The role of spatial and aspatial factors. *Health & Place*. 18: 841-853
- xvii. George Ydeinak, 'Top 10 Trends in Senior Housing for 2012', *Senior Housing News*, January 9, 2012, <http://seniorhousingnews.com>

viewpoints



CONSUMERISM TREND IN MALAYSIA



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Introduction

Lifestyles that rely on consumer goods and that focus heavily on the acquisition of these goods continue to spread around the world. As this trend unfolds, purchasing power determines social standing in society; and the type, price and brand of consumer goods and/or services becomes the symbol of identity.

Globalization and rising incomes encourage consumerism. In developing countries middle class societies are emerging and gaining the financial means to pursue and support consumer lifestyles. The ideological obstacles that once kept consumerism in check in several parts of the world have fallen away in recent decades with the decline of the Soviet Union and China's change in its economic policy. In developed countries, consumerism continues to evolve. Consumer expectations are rising and, for many people, things that were once considered 'luxuries' are becoming 'necessities' – e.g., PCs, mobile phones, or international travel.

Malaysia could attain developed nation status by 2018, two years earlier than targeted, if economic growth remains at 5.3% to 5.5% in the next four years. Malaysia's current population of 29.7 million is growing steadily at an annual rate of about 1.8%. Greater Kuala Lumpur is now home to six million people, which is 20% of Malaysian's population and by the year 2020, there will be 10 million people living in Kuala Lumpur and its surrounding areas. Increased populations mean increased consumption in overall market. The country has seen a steady increase in the standard of living and with it, its purchasing power (per capita income exceeds RM19,739 or US\$5,681).

Trend summary

Consumption is a basic fact of life. People need necessities such as food, water, clothing, energy, etc. But they also desire nonessential things – such as travel, personal interactions, information, and entertainment – to enrich their lives.

Consumerism changes people's lives.

- People gain access to novel products and services that they could not realistically produce themselves, from fuel to imported food.
- Purchasing goods and services frees up time for people to pursue other activities, e.g. purchasing prepared food may free up time for leisure or education.
- Consumption styles and habits help define social status, and people around the world are increasingly defined by what and how they purchase. One's purchasing styles and habits become clues to other people about what one considers important, whether it is the latest Nike shoes or organic food. For some people consumption provides a common benchmark to measure personal accomplishment.
- Consumerism can improve peoples' lives, giving them access to useful products and services. But, at the same time, it also defines the haves and the have-nots which may create personal dissatisfactions and even societal instability. For example, the Chinese Ministry of Labor and Social Security recently reported that the emerging Chinese income gap could create social unrest in the country.
- Consumerism stokes the fires of national economies. It is estimated that two new jobs are created for every Chinese-made car that rolls off the production line, and the salaries of these workers fuel other parts of the Chinese economy.

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Malaysia's economy is seen to be in a 'middle-income trap'. The country is no longer able to compete with neighboring countries in low-cost production and lack the skills for high-end tasks in global production networks.

Scale of consumerism

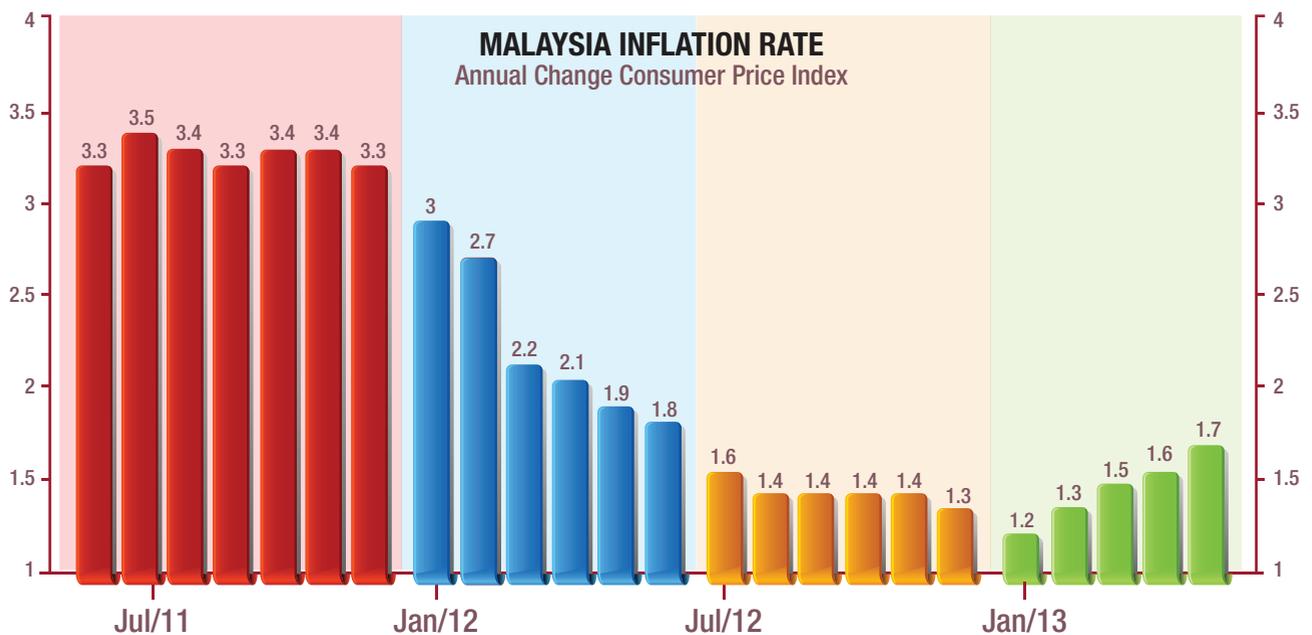
The urbanisation rate is expected to increase at a cumulative annual growth rate (CAGR) of 1.2 percent between 2013 and 2018 in Asia Pacific. In Malaysia, about 2.6 million people are expected to move from rural to urban areas in Malaysia between the same periods.

Urbanization and migration create employment problems. However, the unemployment rate in Malaysia has decreased 3.0% in April 2013 whilst the unemployment rates of developed countries

such as United Kingdom and US are soaring – UK, 7.7% and US, 7.5% – for the same month.

Economists target the levels of inflation in Malaysia to be at 2.5% for 2013, taking into account the current implementation of the goods and services tax (GST) and the extension of retirement age to 60 starting 1 July 2013.

Figure 1 MALAYSIA INFLATION RATE: Annual Change Consumer Price Index



In recognising the complexities of urbanisation challenges, government agencies, policy makers and industry players are formulating more integrated approach to address the critical issues such as water, environment, waste and city planning in more holistic way.

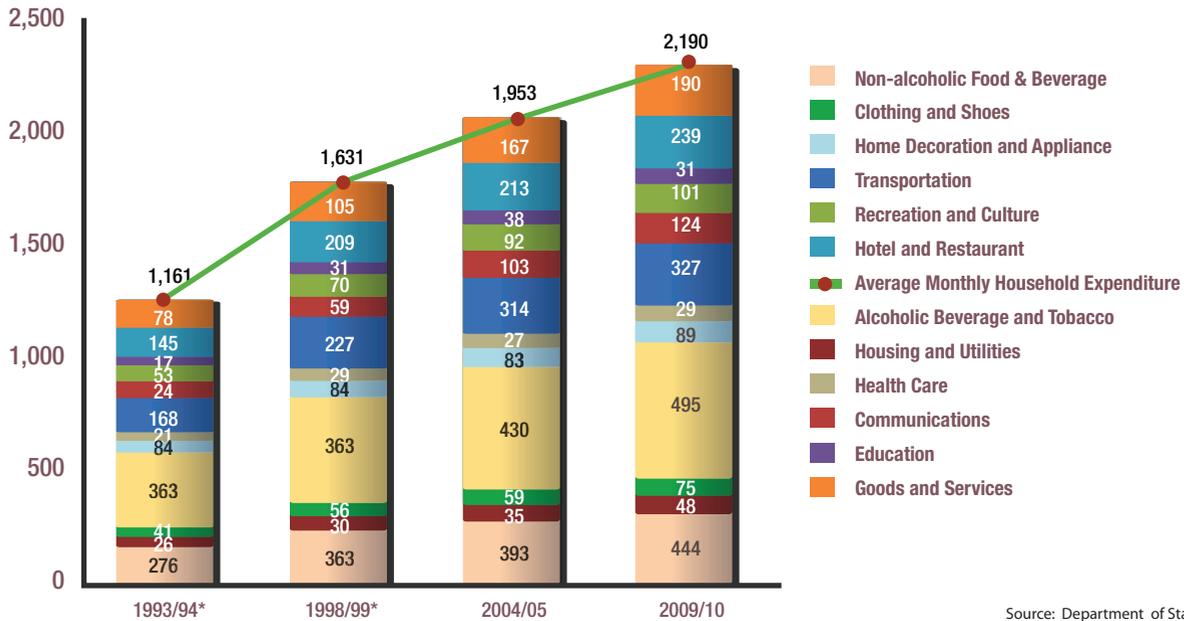
The Human Development Report 2013 highlights Malaysia's predicament which is seen to be in a 'middle-income trap'. The country is no longer able to compete with neighboring countries in low-cost production and lacks the skills for high-end tasks in global production networks. Malaysia's progress is restrained by inadequate research and development capacity, lack of design and process engineers, and technical and production workers.



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Change of Consumerism

Figure 2 Household Expenditure Trends, Malaysia 1993 to 2010



Source: Department of Statistics Malaysia

Like everywhere else in the world, the needs of consumers in Malaysia evolve and change over the time.

- **Geographic shift**
Consumption in urban areas are significantly higher than in rural areas as proportion of urban population increased to 71.0 per cent in 2010 compared with 62.0 per cent in 2000, according to Department of Statistics Malaysia (DOSM).
- **Sustainable consumption**
Consumers play an important role in sustainable consumption. It is hard to fulfill the needs of consumers because they change over a time. What is important today might not be relevant in the next 100 years.

Malaysia's progress is restrained by inadequate research and development capacity, lack of design and process engineers, and technical and production workers.

- **Redirected consumerism**
Consumers around the world make their purchasing decision based on ethical, religious, political, or other beliefs. For example, some Malaysians refuse

to buy Israel products due to Palestine's issues; consumers in South Korea prefer national brand rather than global brand. It is important to note that this kind of consumerism factor driving the Korea's economy. To date, Malaysia is unable to duplicate South Korea's success as Malaysia's consumerism is driven by western lifestyles.

- **Beyond consumerism**
Climate change awareness and smart technology influence consumers' behavior and change their consumption culture.

Consumerism Relevance to Business Sectors :

Business sector	Trend's relationship to sector
Construction	<p>The spread of consumerism in developing countries is helping to foster the idea of the home as an extension of the self and a sign of upward mobility. "California-style" gated communities are popping up for IT workers in India. It can also mean upgrading functionality in the home, e.g., with modern appliances. In developed countries the home has long been seen in these terms; aesthetics are central and people strive for the latest accoutrements.</p> <p>In Malaysia, analysis by type of housing units shows that consumers prefer terrace / townhouses / cluster houses and flats / apartments / condominiums rather than detached and semi-detached houses. Green focus agenda is being adopted in almost all new construction planning.</p>
Energy and natural resources	<p>The use of energy and natural resources rises in parallel with the rise of modern consumerism. For example, on the back of its shift towards consumerism China has become the world's largest market for grain, meat, coal, and steel. This growth has also sparked a brisk trade in illegally harvested lumber, leading to deforestation across Asia.</p> <p>Generally, Malaysians are aware of energy efficiency. Consumers in Malaysia are looking for better products in term of energy saving and fuel efficiency.</p>

Business sector	Trend's relationship to sector
Fast-moving consumer goods (FMCG)	FMCG help consumers efficiently and easily meet day-to-day needs such as personal care, meal preparations, and home cleaning. At the same time, they provide consumers with relatively inexpensive opportunities to purchase branded lifestyle products such as cosmetics and personal care products.
Financial services	<p>Consumerism in established and emerging markets is often supported by credit. Access to credit is on the rise in developing countries, helping to finance consumers' spending on cars, homes, household appliances, etc.</p> <p>Influential financial news magazine, The Economist, has named Malaysia as the world's most important Islamic-finance center. Malaysia's Islamic banking assets growth rate is between 18% and 20% annually. Over the past few years takaful, an Islamic insurance scheme, has enjoyed significant expansion with an estimated average annual growth rate of 25% as apposed to 10.2% for the conventional insurance between year 2004 and 2007. Financial planning is becoming essential among Malaysian.</p>
Food and beverage	<p>Consumerism means that people look at food not just as a source of calories, but also as a lifestyle product and even a mark of personal distinction, e.g., distinguishing oneself by eating 'modern' packaged foods in the Third world, or Icelandic free-range lamb in the developed countries.</p> <p>The practice of eating-out has become a trend among urban workers, students and even families because of work or there is no food available at home. In Malaysia, Halal status has been the most important factor for Muslim consumers.</p>
Government	<p>A rise in consumerism usually means governments will need to tackle questions of market regulation, product and food safety, and authenticity in advertising. Governments must also decide which goods and services (such as phone service or water) are social goods and which are part of the market.</p> <p>Government's policy and regulation is one of the drivers in consumption trend. For example, by focusing on green growth, Malaysia can expedite its target to reduce GHG by 40% in 2020 from its level in 2005. Malaysia is confident that the services sector will contribute 70% to the gross domestic product (GDP) by 2015.</p>
Health & Medicine	<p>Healthcare is part of the social and government sector in many parts of the world, but in others it is a consumer service. Lifestyle drugs – prescription drugs that address conditions that are chronic but not life-threatening – have become popular worldwide. Medical tourism is on the rise as a distinct form of consumer-focused medicine. These and other trends push medicine more towards the consumer realm. Malaysia is ranked among the top five destinations for medical / health tourism. Factors such as cost-effective treatments, skilled medical professionals and government support are driving the growth.</p> <p>There is a big concern on dietary pattern such as eating outside, skipping meals and relying on fast food. This dietary pattern contributes to non-communicable diseases associated with over nutrition namely obesity, hypertension, coronary diseases and cancers.</p>
Information technology	<p>Information technology, primarily the Internet, has become increasingly important to consumerism in recent years. E-commerce, collaborative filtering, eBay, and product research are just a few of the innovations. Infotech devices have moved from geek to chic, and buying – and using – the latest IT for some consumers in all three Worlds is a way to attain an air of coolness and modernity.</p> <p>The numbers of people buying smartphones has increased to 7.7 million in January 2013. Broadband penetration in Malaysia increased from 55.6% in 2010 to 66.0% in 2012. Report by McKinsey & Company in 2012 placed Malaysia at third place among countries that enjoyed productivity increase for SMEs due to web technologies. Sharing information on the internet enable consumers to access more options available online. Some consumers are moving towards 'collaborative consumption' where people make deals or swap things and services over the internet. eGovt initiatives to transform government services online has increased productivity, specifically towards a paperless government.</p>
Leisure	Leisure time is closely linked with consumerism in World 1 and is increasingly in other parts of the world, with people spending time to go to the movies, travel, buy books, etc. For some people, consumerism itself has become a pastime, e.g., shopping at the mall, bargain hunting, or antiques.

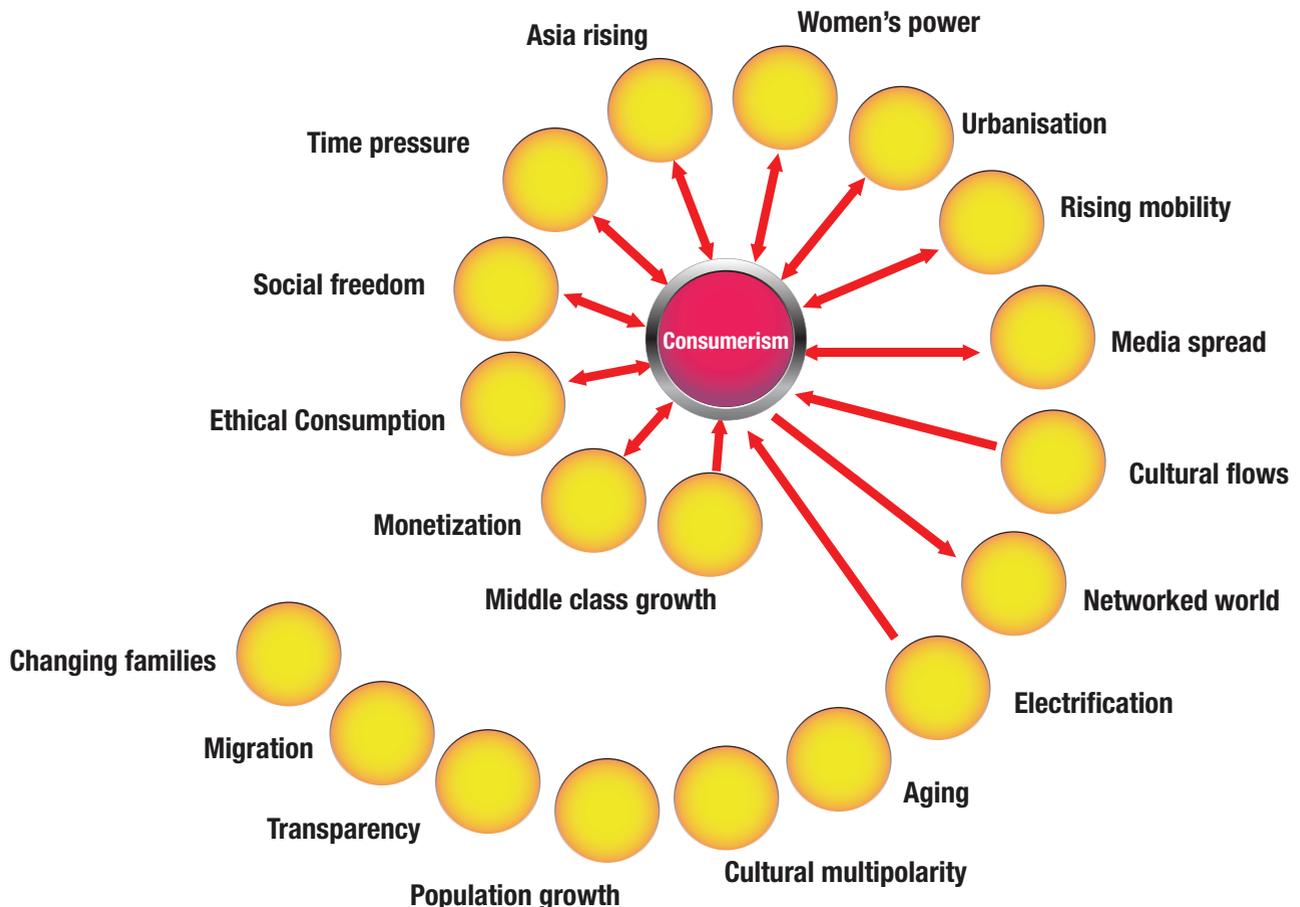


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Business sector	Trend's relationship to sector
Media	Popular media reinforce the idea of consumerism as a lifestyle and carry the advertising meant to draw consumers to products and services. Consumers in Malaysia now have more access to a media where more people have more variety of sources for information and entertainment through different devices. Apart from traditional newspapers, magazines and television, sharing information through social media has become a trend. Some consumers prefer smartphones for their desirable features and advance ability in term of media accessibility.
Mobility	As people embrace consumerism, expectations about transportation change. Personal mobility is a prime component of consumer life in developed countries. The model of personal car ownership and leisure travel has now been passed on to developing countries and has become the aspirational model for developing countries's emerging consumer class. In Malaysia, a family without a car is a rarity. Even students of driving age from middle and upper middle class families have their own cars to travel from their residents to colleges or universities.
Retail	Formal retail outlets such as hypermarkets and supermarkets that provide one-stop shopping are common in developed countries are making inroads into developing countries. The old fashioned sundry shops and street vendors will soon be things of the past.

Relationships to other Trends

Consumerism interacts with many other trends. The diagram below shows these relationships its closely intertwined and driven by other trends including the rise of middle class, monetization, media spread, ethical shopping, etc.



Source: INNOVARO: Top 20 Trends Consumerism

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Relationships to Other Top 20 Trends

Other Trend	Relationship to consumerism	Relationship description	Change in the future
Middle-class growth	Driver	Over the last century the emergence of large middle-income groups in developed countries societies has gone hand-in-hand with the creation of modern consumerism. Rising middle classes are now helping spread consumerism to developing countries.	Much of future growth in consumerism will be driven by the expansion of the global middle class in developing countries such as China, India, Brazil, Russia, and Mexico.
Monetization	Mutually reinforcing	Monetization gives consumers new options for consumerist identities and pursuits. The rise of consuming classes provides the incentive for businesses to monetize daily activities.	Time-consuming household activities are monetized in consumer societies, including food preparation and childcare. As incomes rise, more and more of consumer lifestyles will be monetized, e.g., exercise, dog walking, and shopping.
Ethical consumption	Outcome	Ethical consumption is a specific form of consumerism in which people integrate personal values into their purchasing choices. Rather than focusing solely on standard variables such as price and quality, consumers integrate ethical, religious, political, and other beliefs into their purchasing decisions, enhancing the tie between consumption and identity.	Developed countries consumers will likely lead the rise in ethical consumption. As consumers in developing countries learn more about ethical consumption, their choices may also be shaped by these ideas and will demand products that meet their distinct ethical criteria.
Social freedom	Mutually reinforcing	Rising freedom gives people more economic and social room to engage in consumer lifestyles. At the same time, the new choices available in consumerist societies let people express their social freedom as they buy products that help define and differentiate them from their fellow citizens (e.g., sport cars, hip-hop music, organic	Consumer goods will be used more and more as a way for people in developing countries to define themselves and express their growing freedom. Countries that are opening up will help spread modern consumerism further around the world.
Time pressure	Mutually reinforcing	Consumerism increases options and the need to support one's expenditure with work, boosting time pressure. At the same time, the purchase of consumer goods (such as prepared foods) can free up time.	Consumers in developing countries will pay more attention to time. They will increasingly seek products and services to alleviate their rising time pressure.
Asia rising	Mutually reinforcing	The rise of Asia is creating new demands for consumer goods and services. At the same time, the lure of consumer-focused lifestyles is helping drive the rise of Asian economies.	Asia's budding consumers will not make the same choices that people in developed countries do. Their styles, preferences, and consumption patterns will contribute to the mix of global consumer options – and in some cases influence the choices of developed countries consumers.
Women's power	Driver	As their position in society improves, women's economic options and resources increase. This means that they are able to more directly drive and direct consumer spending.	Women's rising economic and social status will be expressed through consumption choices, and used to pursue new identity options.
Urbanization	Mutually reinforcing	Cities expose people to the range of consumer life, and offer economic opportunities that can boost people's income, driving consumer spending. At the same time the allure of consumer life can draw people in search of modern lifestyles to the cities.	The future growth of cities, especially in developing countries, will expose consumers to a wider variety of consumer options than ever before.

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Other Trend	Relationship to consumerism	Relationship description	Change in the future
Rising mobility	Outcome	Upgrading personal transportation is a primary goal for many as their incomes rise, whether that means a motorized scooter for a teen in Vietnam or a minivan for a young family in Mexico.	Consumer spending will spur demand for mobility products and services, from cars and traffic management systems to airplanes.
Media spread	Mutually reinforcing	Media content drives consumerism and new consumers seek to acquire the radios, TVs, satellite dishes, and other devices that enable media spread.	It will become easier to reach consumers in the future as more are linked to modern media streams. But as consumers gain the ability to personalize their media, messages will need to be more closely focused on specific consumer identities.
Cultural flows	Driver	Cultural flows expose people in emerging economies to the idea of consumer culture and, in general, give people new consumer identities to aspire to.	Developed countries cultural exports will find increasing competition from rising power of developing countries in shaping global consumerism.
Networked world	Outcome	As consumerism spreads, people gain access to network devices and services.	Nodes in the networked world will increase as consumerism spreads. Developed countries will connect in new ways, and much of developing countries will connect for the first time.
Electrification	Driver	Electrification enables many new forms of consumption, from appliances to media devices and new kinds of food.	Electrification will increase the total pool of consumers, and open new opportunities for serving bottom-of-the-pyramid consumers.

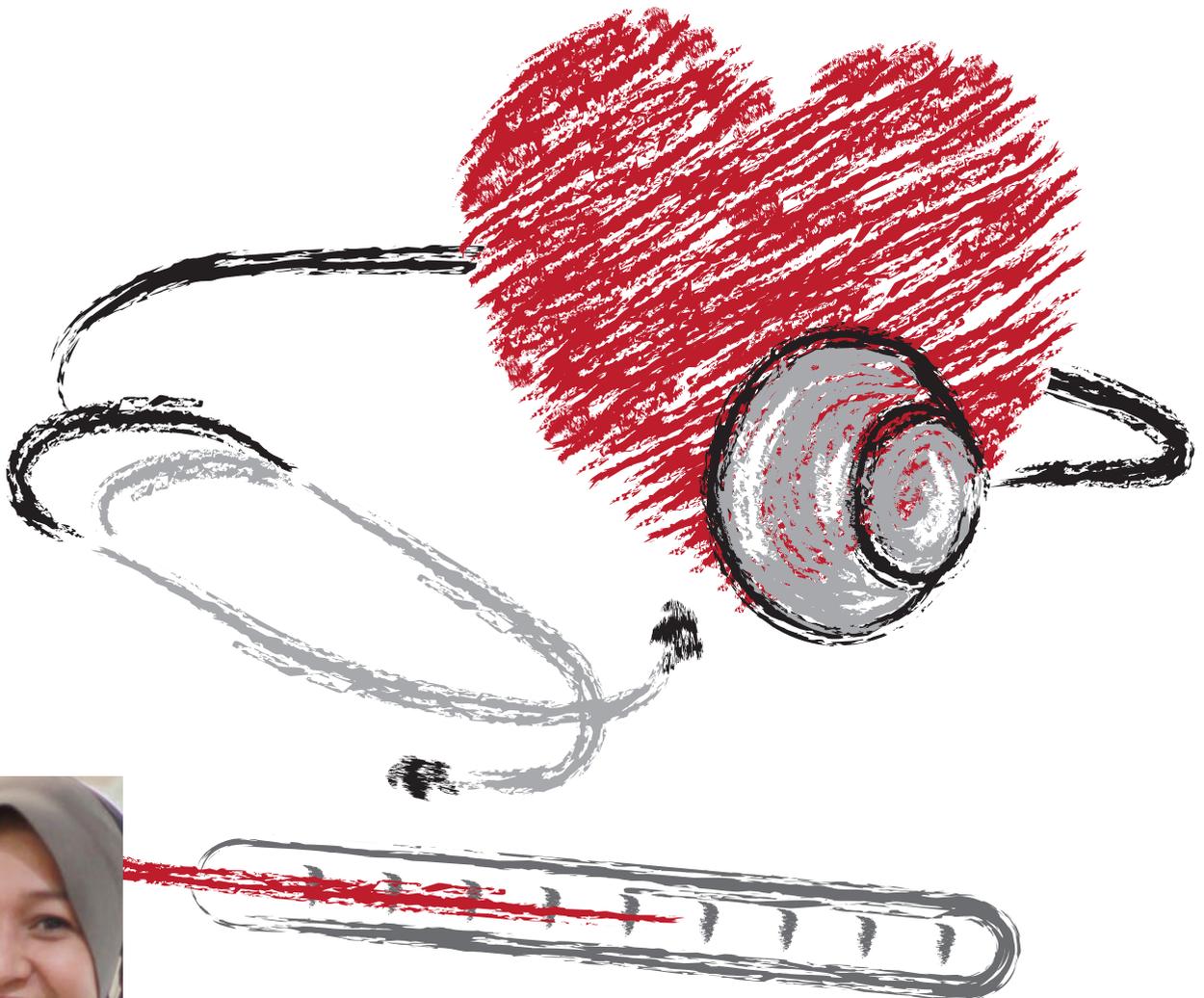
Source : Social Technologies Analysis.



References

1. Top 20 Consumerism
2. Malaysian Demographic and Economic Trends
3. Malaysian Retail Trends
4. Malaysia Consumer Life
5. Malaysia may be developed nation by 2018, says minister
6. Strong ringgit to give Malaysians better purchasing power
7. Low Carbon Green Growth Roadmap for Asia and the Pacific
8. April CPI up 1.7% on higher food prices
9. MITI confident services sector to contribute 70% of GDP by 2015
10. Malaysia among top 3 in economic impact of Internet study
11. Human Development Report 2013
12. Nutrition Research in Malaysia
13. SKMM Handphone Survey 2011
14. World Economic Forum : Engaging Tomorrow's Consumer
15. World Economic Forum : Consumer Industry Emerging Trends and Issues
16. 'Car prices will be cut in stages'
17. Retail and Consumer World by PwC
18. Charging forward PwC's 2012 electric vehicle survey
19. Household Use of the Internet Survey 2011
20. Greater KL To Host 10 Million People, Greener Buildings In 2020, Says Raja Nong Chik
21. Household Expenditure Trends, Department of Statistics Malaysia

NON-COMMUNICABLE DISEASES (NCDs): IS IT A FUTURE WITHOUT HOPE?

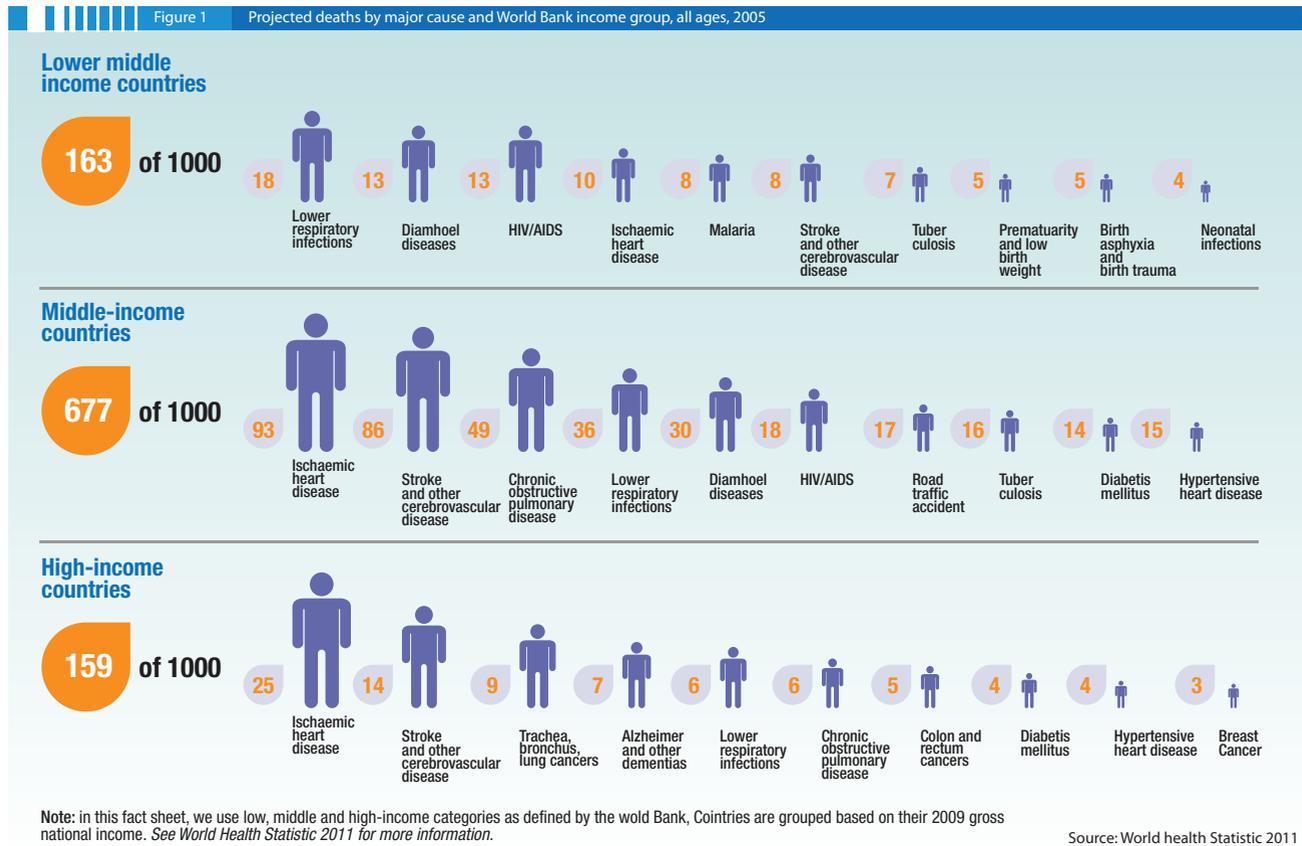


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viewpoints

News about the death of a 36 years old friend due to heart attack really shocked me. He is young, cheerful, and athletic. He has not shown any symptom of illness, either physically, emotionally or mentally. The news really made me ponder, and scrolling down my Facebook newsfeeds made it even worst with news so many drastic and tragic fatalities.

One has to accept that death does not consider age or fitness level. It is inevitable. And one cannot fully relate health symptoms to death as statistics have shown that the death cases caused by NCDs are on the rise for all ages all over the world irrespective of the wealth status of the nations. (Figure 1, World Bank)



The sedentary lifestyles afforded through urbanization, modernization and globalization are the main cause of this new so called lifestyle diseases.

The leading threat:

Non-communicable diseases (NCDs) have been identified as the leading cause of morbidity and mortality globally. World Health Organization (WHO) projected that 64 million people will die of chronic diseases by 2015. As the common risk factors to these chronic diseases that cause death

in men and women from all parts of the world, are unhealthy diets, physical inactivity, tobacco and alcohol intake, obesity and environmental carcinogens, society is blaming it on modernization, urbanization and globalization. (Table 1, World Health Statistics 2008 shows a comparison of leading cause of deaths in 2004 and the projected cause of deaths in 2030)



Table 1 Leading Causes Of Death, 2004 and 2030 Compared

2004				2030			
Disease or injury	Deaths (%)	Rank		Rank	Deaths (%)	Disease or injury	
Ischaemic heart disease	12.2	1	→	1	14.2	Ischaemic heart disease	
Cerebrovascular disease	9.0	2	→	2	12.1	Cerebrovascular disease	
Lower respiratory infections	7.0	3	→	3	8.6	Chronic obstructive pulmonary disease	
Chronic obstructive pulmonary disease	5.1	4	→	4	3.8	Lower respiratory infections	
Diarrhoeal diseases	3.6	5	→	5	3.6	Road traffic accidents	
HIV/AIDS	3.5	6	→	6	3.4	Trachea, bronchus, lung cancers	
Tuberculosis	2.5	7	→	7	3.3	Diabetes mellitus	
Trachea, bronchus, lung cancers	2.3	8	→	8	2.1	Hypertensive heart disease	
Road Traffic accidents	2.2	9	→	9	1.9	Stomach cancer	
Prematurity and low birth weight	2.0	10	→	10	1.8	HIV/AIDS	
Neonatal infections and other*	1.9	11	→	11	1.6	Nephritis and nephrosis	
Diabetes mellitus	1.9	12	→	12	1.5	Self-inflicted injuries	
Malaria	1.7	13	→	13	1.4	Liver cancer	
Hypertensive heart disease	1.7	14	→	14	1.4	Colon and rectum cancers	
Birth asphyxia and birth trauma	1.5	15	→	15	1.3	Oesophagus cancer	
Self-inflicted injuries	1.4	16	→	16	1.2	Violence	
Stomach cancer	1.4	17	→	17	1.2	Alzheimer and other dementias	
Cirrhosis of the liver	1.3	18	→	18	1.2	Cirrhosis of the liver	
Nephritis and nephrosis	1.3	19	→	19	1.1	Breast cancer	
Colon and rectum cancers	1.1	20	→	20	1.0	Tuberculosis	
Violence	1.0	22	→	22	0.9	Neonatal infections and other*	
Breast cancer	0.9	23	→	23	0.9	Prematurity and low birth weight	
Oesophagus cancer	0.9	24	→	29	0.7	Diarrhoeal diseases	
Alzheimer and other dementias	0.8	25	→	41	0.4	Birth asphyxia and birth trauma	
						Malaria	

* Comprises severe neonatal infections and other, noninfectious causes arising in the perinatal period

Source: World Health Statistics 2008 (www.who.int/whosis/whatstat/2008/en/index.html)

What is NCD?

NCD refers to all type of diseases that usually not infectious. However, some NCDs such as cardiovascular (heart) diseases, stroke, cancer, diabetes, respiratory diseases, and obesity but can be genetic or hereditary. There are also NCDs of mental and neurological disorders which have not been highlighted although cases of Schizophrenia, Alzheimer and depression are also rising globally.

NCDs can be prevented by controlling the risk factors such as practicing healthy diet and regular physical fitness activities, but there are cases of apparently fit people also falling prey to them. One good example is Yuvraj Singh, the 30 year-old cricket player whose death has been caused by a rare form of disease called germ cell seminoma.

Although the risk factor is sedentary lifestyle, NCDs are not only prevalent amongst the rich. According to the World Bank, NCDs are going to be the main cause of death in poor developing nations by 2015.

Data from WHO 2008 shows that 48% of NCD deaths are linked to cardiovascular illness (17 million deaths); cancer, 21% (7.6 million deaths); respiratory diseases, 4.2 million; and diabetes, 1.3 million worldwide. 80% of these deaths occurred in low and middle income countries.



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Table 2 World Health Statistics 2008, Mortality and burden of disease

Maternal Mortality	Maternal mortality ratio ^d (per 100 000 live births)	Maternal Mortality							Age-standardized mortality rates by cause ^{h,1} (per 100 000 population)				
		Female 2005	HIV/AIDS ^e 2005	Cause-specific mortality rate (per 100 000 population)			TB among HIV-positive people ^g			Non-communicable	Cardio-vascular 2002	Cancer	Injuries
				TB among HIV-negative people ^f 1990 2000 2006	TB among HIV-positive people ^g								
Liberia	1200	...	36	64	63	1	8	7	955	485	169	270	
Libyan, Arab Jamaiyica	97	...	5	2	1	...	...	...	650	411	79	55
Lithuania	11	<10	5	10	7	0	0	0	640	391	161	136	
Luxembourg	12	<50	2	1	1	0	0	0	406	177	134	51	
Madagascar	510	16	38	40	4	5	0	0	837	430	147	112	
Malawi	1100	605	9	23	21	6	104	90	835	430	147	112	
Malaysia	62	16	21	16	14	0	2	3	625	274	139	50	
Mali	970	81	79	66	63	1	6	7	909	458	166	145	
Mata	8	<50	1	1	1	0	0	0	429	214	124	24	
Marshall Islands	...	...	68	47	28	...	...	...	997	526	125	62
Mauritania	820	<50	62	72	67	0	3	4	984	451	158	138	
Mauritius	15	<10	4	3	3	0	0	0	701	434	79	42	
Mexico	60	8	10	4	2	0	0	0	603	163	88	58	
Micronesia (Federated States of)	...	...	33	19	12	...	...	...	782	410	93	39
Monaco	...	...	0	0	0	...	...	...	325	115	120	41
Mongolia	45	<10	52	36	15	0	0	0	988	488	306	96	

Source: World Health Statistics 2008

Malaysia's scenario

Malaysia is also being hit by the rising wave of premature deaths caused by NCDs. Research data, including from the Malaysian National Health & Morbidity Surveys (NHMS), has shown increases in NCDs cases from 2006 to 2011 (Refer to graph). Heart diseases are top 5 principal causes of death of Malaysians aged 15-64 years old. (Department of Statistics, Malaysia).

Rising obesity cases amongst children in Malaysia for the past few decades is also alarming. The prevalence of 'at risk of overweight' is 12.5% (male) and 11.7% (female) among school children aged 13-17 years. Childhood obesity usually occurs in a social landscape that is awash in low-nutrition, and high-calorie food.

In developing countries, middle-aged adults are seen to be more vulnerable to chronic diseases such as heart attacks and strokes. The number of

deaths at earlier ages caused by these diseases is larger in developing countries compared to in developed countries. This trend affects these countries economic and social development, it is like robbing the nations of its citizens during their most productive years.

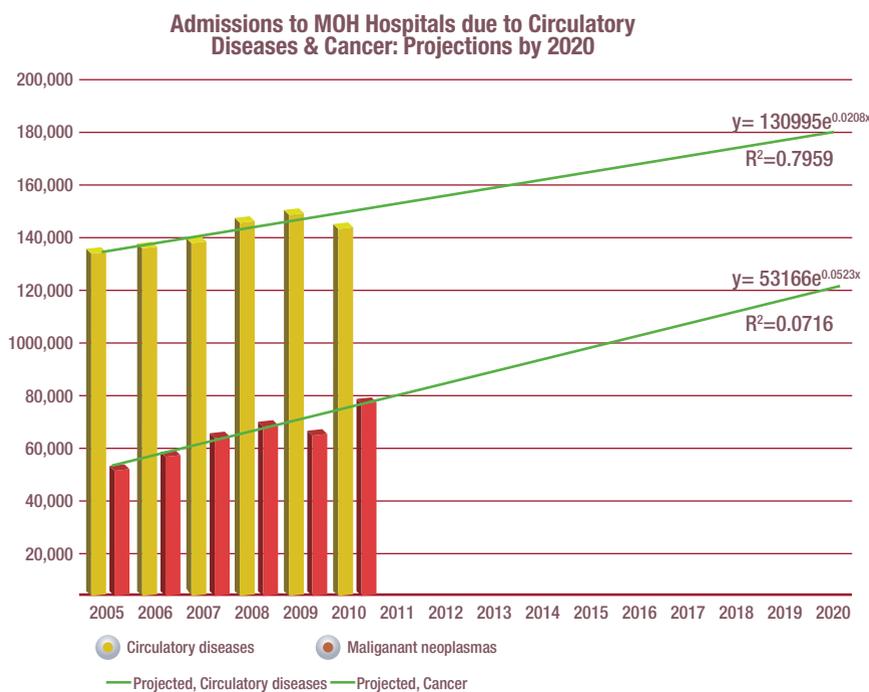
Table 3 Prevalence of NCD Risk Factors in Malaysia (1996-2006)

	NHMS II (1996)	MANS (2003)	MyNCDS-1 (2005)	NHMS III (2006)
Age group	> 18 years	> 18 years	25-65 years	> 18 years
Smoking	24.8%	N.A.	25.5%	21.5%
Physically inactive	88.4%	85.6%	60.1%	43.7%
Unhealthy Diet	N.A.	N.A.	72.8	N.A.
Overweight (BMI > 25 & >30 kg/m ²)	16.6%	27.4%	30.9%	29.1%
Obesity (BMI > 25 & >30 kg/m ²)	4.4%	12.7%	16.3%	14.0%
Hypercholesterolaemia	N.A.	N.A.	53.5%	20.6%

In 2006, there is an estimated 2.8 million Malaysians age 18 years and above are current smokers, 5.5 million physically inactive, 3.6 million overweight and 1.7 million Malaysians obese.

Source: Malaysian National Health & Morbidity Survey (NHMS)

Figure 2 Admissions to MOH Hospitals due to Circulatory Diseases & Cancer: Projections by 2020



Preventive mechanism

As sedentary lifestyles and new dietary habits contribute to the increase of chronic diseases and premature deaths, preventive measures such as good and healthy diet, regular medical checkup and health screening, and regular exercise become necessary. In Malaysia, the government is playing the leading role in effort to combat these diseases. The Ministry of Health has developed a plan known as National Strategic Plan for NCDs (NSP-NCD). NSP-NCD was presented and approved by the Cabinet of Malaysia on 17 December 2010. The NSP-NCD provides the framework for strengthening NCD prevention and control programs in Malaysia.

There are seven strategies outlined in NSP-NCD:

1. Prevention and promotion
2. Clinical management
3. Increasing patient compliance
4. Action with NGOs, Professional Bodies & other stakeholders
5. Monitoring, Research and Surveillance
6. Capacity Building
7. Policy and Regulatory interventions

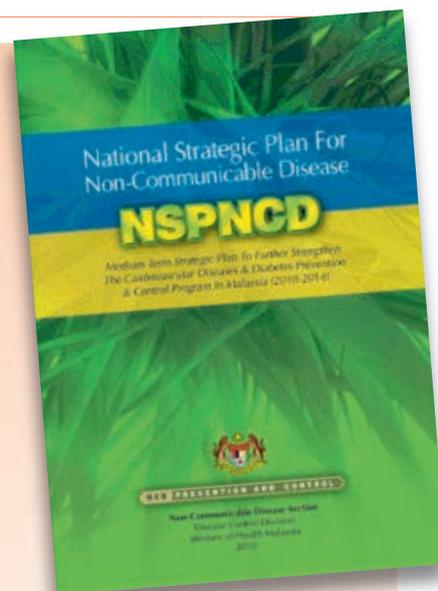
Malaysia adopted the 'whole of government' and 'whole of society' approach in implementing the strategies. The idea is to get cross ministries involvement, both in creating policies and legislations, to create a health promoting environment.



MINISTRY OF HEALTH
MAI AYSIA

Cabinet Committee for A Health Promoting Environment

1. Minister of Health
2. Minister of Education
3. Minister of Information, Communication, Arts & Culture
4. Minister of Rural & Regional Development
5. Minister of Agriculture and Agro-based Industry
6. Minister of Youth & Sports
7. Minister of Human Resource
8. Minister of Domestic Trade, Co-operatives and Consumerism
9. Minister of Housing and Local Governments
10. Minister of Women, Family and Social Affairs



Main TOR: To determine policies that creates a living environment which supports positive behavioural changes of the population towards healthy eating and active living

viewpoints

In developing countries, middle-aged adults are seen to be more vulnerable to chronic diseases such as heart attacks and strokes

Defeated conquest or triumph?

The main focus of NSP-NCD is to improve medical care and services along with many other intervention programs, including education, training, awareness campaigns and counseling of the general public.

Apart from helping to improve and promote healthy living habits and lifestyles, NSP-NCD also implements measures to reduce the risk factors of NCDs such as increasing the price of tobacco and unhealthy food content, reducing the cost of healthy food and

restricting the marketing of unhealthy foods for children, protect populations from exposure to second-hand smoke and numerous other initiatives.

Economic and social loss

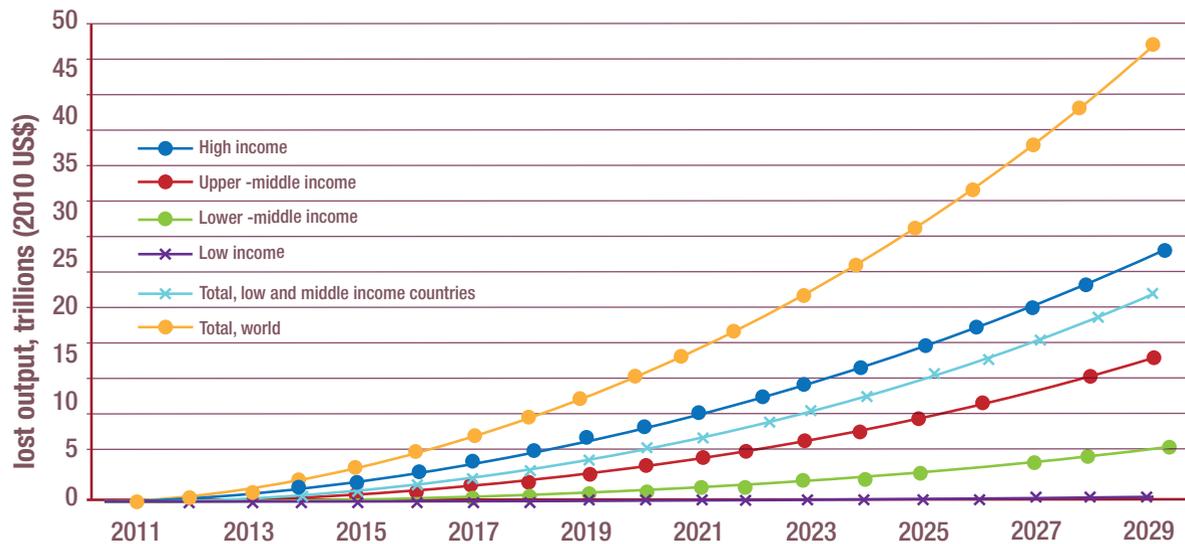
The economic impact of NCDs is very high, not only for the effected individuals and their families, but the society and nation at large. Globally, in 2010 the direct costs (diagnosis, treatment and care) and indirect costs (loss of productivity and income) for cardiovascular diseases alone were \$863 million, and it is projected to increase by 22 percent to \$1.05 billion by the year 2030. At the 2011 UN High Level Meeting on NCDs, the World Economic Forum projected that NCDs could result in a cumulative output loss of US\$ 30 trillion over the next two decades. (figure3)

It is hard to put a price tag on fighting these diseases. However, the World Economic Forum has identified NCDs as the second most severe

threat to the global economy after wealth inequality between the rich and the poor. NCDs have forced many breadwinners of the families to quit their jobs, whilst many women are unable to continue to work as they have to look after the sick.

Some NCDs such as cardiovascular (heart) diseases, stroke, cancer, diabetes, respiratory diseases, and obesity but can be genetic or hereditary

Figure 3 Output losses will speed up over time (breakdown of NCD cost by disease, based on EPIC model)



Source: World Economic Forum (www.who.int/whosis/whatstat/2008/en/index.html)

Where does it lead?

It is hoped that emerging technologies will be able improve the mortality and mobility rate of humankind. Continuous innovation and integration in medical, engineering, information technology and researches to build a good infrastructure in combating NCDs are necessary. At the same time, people need to adhere to the lifestyle changes within and outside health services.

Dr. Ray Kurzweil, inventor, businessman and author, forecasted that by 2045 we will be dominated by nonbiological intelligence (a merger between biological and machine

intelligence). Soon technology can be used to reprogram genes away from cancer. However, the importance of maintaining healthy lifestyle is very significant.

References:

1. WHO, Preventing Chronic Diseases a vital investment, Geneva 2005
2. World Economic Forum and Harvard School of Public Health, September 2011
WHO, World Health Statistics 2008 (http://www.who.int/whosis/whostat/EN_WHS08_Full.pdf)
3. The Non-Communicable Diseases (NCD) Division, Ministry of Health Malaysia
4. The Malaysian Association for the study of obesity (MASO)
5. The report, Public Policy and the Challenge of Chronic Non-communicable Diseases, is available at <http://web.worldbank.org>.

6. BMJ Publishing Group Ltd 2007

7. Non Communicable Diseases - A Universal Scourge <http://www.sooperarticles.com/health-fitness-articles/diseases-articles/non-communicable-diseases-universal-scourge-1041834.html#ixzz2RqAcn78J>

8. Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases (NCD Action Plan).

9. Non-communicable diseases pose rising threat to poor nations Geneva, John Zarocostas

10. IT growth and global change: A conversation with Ray Kurzweil : McKinsey Quarterly (January 2011)

11. Huffpost Healthy Living, Katherine Warren, Laura Macherelli, July 2011

FAMILY & HOME: THE NEXT DECADE



BY
Natrah Mohd Emran
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Home sweet home and it is getting sweeter! Outside forces and introduction of new technologies have influenced and changed the dynamics of family and home. Housing developers include modern technologies and facilities to encourage sales. House owners are getting accustomed to new devices, systems and services.

A part from affordable price, future home buyers will definitely look for added values in availability of technology devices and systems in their houses.

According to Google's executive chairman, Eric Schmidt, in the house of the future people are 'not lost, never lonely, never bored'. He sees new technology as offering the possibility of 'a life of knowledge and entertainment – a potpourri for all of us to choose from.'¹

Based on his statement, it could be imagined that in the next decade home would be the heart of daily routines without necessarily leaving the house to get things done as Facebook, Twitter, YouTube, instant messaging,

video conferencing, web meetings and many other collaborations and social media platforms would become part of peoples' everyday lives around the world.

From the porch to the kitchen and from the hall to the bedroom of future houses would be equipped with devices that are not only more efficient than anything we have now, but also provide greater connectivity between people and machines, allowing them to 'talk' seamlessly to each other.

Changes in demographic and family set-ups, shifting of habits, economic constraints, and aging family members are among the drivers of change towards innovation of new technologies. The following diagram

(Diagram 1) listed 10 technology trajectories that are relevant to the evolution of home and family life over the next decade (Diagram 1).²

Apart from affordable price, future home buyers will definitely look for added values in availability of technology devices and systems in their houses.

viewpoints

Diagram 1 10 Key Technology Trajectories influencing future home

Key Technology Trajectories

Ten technology trajectories were identified in this research series:

- Adaptive Environments
- Cloud Intelligence
- Collaboration Economy
- Contextual Reality
- Cutting the Cable
- Information Fusion
- Interface Anywhere, Any way
- Manufacturing 3.0
- Personal Analytics
- Socially Networked Stuff

Of the 10, several are particularly relevant to the evolution of home and family life over the next decade.



Interface Anywhere, Any Way

Intuitive interfaces will become the dominant form of interaction with IT. People will use gestures, touch, verbal commands/ and other novel input/ output interfaces to control devices and home systems



Cutting the cable

Millennials and Generations Z are coming of age in a world where networking is increasingly ubiquitous. They will expect their homes to be platforms that facilitate their anywhere, anytime IT-infused lifestyles.



Cloud Intelligence

Cloud-based services will bring advanced decision-support into homes, offering personalized, contextualized assistance as families go about their lives.



Adaptive Environments

Advances in materials will make homes "smart". Everyday objects, surfaces and coatings will adapt to changing conditions or consumer needs-becoming self cleaning, changing function, displaying different colours, etc.



Information Fusion

Many household systems will have the ability to make complex information and patterns user-friendly and accessible to residents via visualization and other easy-to-grasp presentation forms.

Socially Networked Stuff

Ordinary home products, from HVAC systems to toasters and toothpaste tubes, will be networked-able to sense and communicate with each other, family members, and the broader digital infrastructure. They will display alerts, make suggestions, etc.



Source: Innovaro. 2011

More aware and adaptive home

With the advancement of new materials and embedded sensors, homes and home systems could become far more functional, adaptive and responsive. As flexible displays finally reach commercialisation, new interfaces will make home technology more ubiquitous – touch screen surfaces, voice controlled appliances, eye-movement tracking or even emotion

analysis that monitors what the user wants would be available soon. These will make home the centre of almost all activities – work, education and entertainment. Indirectly, this will influence and change the house layouts. There is no necessity for dedicated home offices or entertainment room, but instead a more flexible and adaptive rooms – any room. Subsequently, people will tend to spent more time at home and become more reliant on 'data insurance' to protect families' crucial information.

As missing out is not an option, cost of these new devices will be the main considerations for home buyers. The economic standings of home owners play an important role in determining the type of technology devices and facilities in their homes. Up-market houses would be equipped with state-of-the-art technology whilst cheaper houses would be equipped with cheaper products. As for older houses/homes, cost of products and installation would be the determining factor.

Future houses would be equipped with devices that provide greater connectivity between people and machines, allowing them to 'talk' seamlessly to each other.

New roles of tech-savvy generation

More than 60% of the Malaysian population are below the age of 34. This group, known as the 'digital natives', encompasses two generations: the Millennials (born in 1979-1998) and the Gen Z (born from 1999 onwards)³. This group; especially the Gen Z, are more likely to engage with multiple devices or media simultaneously.

Today, kids as young as pre-schoolers engrossed with smart phones and tablet computers are a common sight. As these Gen Z move into their teens and 20s, they will have substantial demand for virtual products – avatar, virtual currency, and 3D printing, etc. They would also be demanding for after-market customisations and modifications of the smart systems to match their environment and needs.

Digital DIY home – upgrading is in our hand

In future, more DIY-enabled devices will be built. Life at home would be more engaging, convenient and fun (or otherwise?). Without leaving homes, families could be connected with the outside world as they can gain ideas and share information, almost instantly from anywhere and anything; be it social networks (e.g. other consumers, virtual agents) or the smart devices itself.

Consumers would be expecting products customisations and modifications to fit their personal needs and necessities. A power to control given by products' manufacturers would enable consumers to make more informed decisions on family issues and home systems. For example, a smart meter with real-time reading and able to provide analysis on energy consumption based on specific characteristic of a home will assist family members to be more aware on their monthly energy consumption and can work together to practice more energy efficient routines.

Tech usage reshaping family dynamics

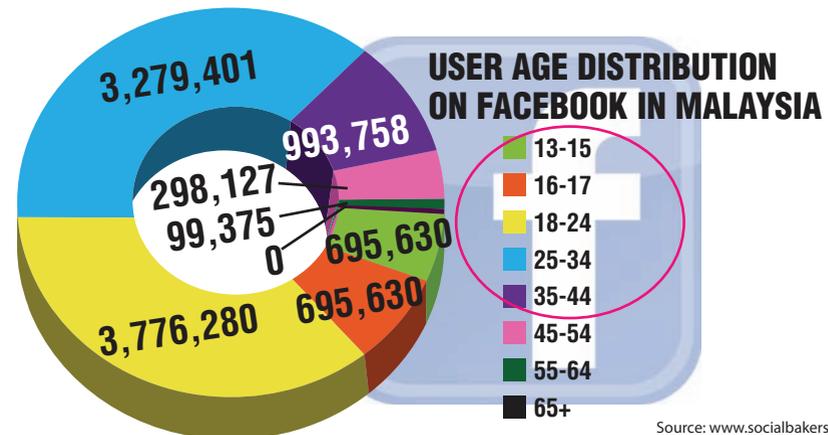
Communication; either directly or indirectly, is vital in human development. It is a natural process for humans to access the outside world on a daily basis. Constant connectivity expands the relationship between parents and children, brothers and sisters, nieces, in laws etc.

As relationships increasingly 'go digital', the impacts are being translated into transformative future technology. Evolution of digital entertainment; for example, may contribute to tighten up family bonding through interesting activities and games played together.

However, technologies may also create personal 'technology bubbles' where family members cocoon themselves at home without communicating with one another, but privately communicate with others at different places ('alone together' is the term used by the MIT). Everyone is in their own world but yet they all globally connected.

Socialbakers' statistic on Malaysia Facebook users shows that 72% users are aged between 18 to 34. (And yes, they are the Millennial and Gen Z.) Another statistic by Google, Ipsos and the Mobile Marketing Association (MMA) shows that 97% are using smart phones at home, and 44% are using smart phone online multiple times per day!

Diagram 1 User age distribution on Facebook in Malaysia



Conclusion

By 2020, most people would be living in more functional and adaptive homes, with personally customised and modified home systems, and better communication methods and interactions between family members. However, while technologies provide new capabilities and experiences, there are also various uncertainties and questions that need to be seriously considered – privacy, financial constrain and the essential human values.

While in the local context, as Malaysia aims to be a develop nation by 2020 with USD15,000 income per capita, are we ready for the change? How fast will we react to introduction of more advanced tools? How much are we willing to pay? How would these factors effect the investment and advancement of home technologies? After all, home is where the heart is.

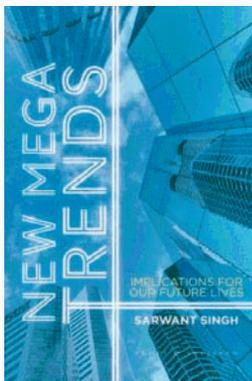
References

1. Nexpected! Technology behind the future home
2. INNOVARO, 2011
3. INNOVARO, 2011

myForesight® Book Club

NEW MEGA TRENDS

ISBN 10: 1137008083
ISBN 13: 9781137008084
Author : Sarwant Singh
Publisher: Palgrave Macmillan



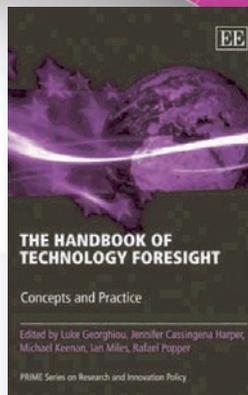
New Mega Trends predicts the ten trends that will make the greatest impact to business – and our lives - in the future and offers practical advice on how to profit from them.

Based upon extensive research by one of the world's largest market research companies and tested with some of the largest Fortune 100 companies, New Mega Trends identifies the ten most important global trends that will redefine our world by 2020:

- E-mobility
- Urbanization
- Health, wellness and well-being
- Social trends
- New battlefields
- Virtual connected world
- Innovating to zero
- Value for money business models
- Smart is the new Green
- From planes to trains

Looking at each of these trends in depth, Singh not only identifies and evaluates the emerging trends, but also translates these into opportunities for everyday business and personal life.

New Mega Trends offers a vivid picture of how our working and personal lives will be changed in the years to come, and with an understanding of immediate opportunities and threats to everyday business and personal life.



The Handbook of Technology Foresight

ISBN : 1848448104, 9781848448100
Authors : Luke Georghiou, Ian Miles,
Rafael Popper
Publisher: Edward Elgar Pub, 2009

Foresight has emerged as a key instrument for the development and implementation of research and innovation policy. The main focus of activity has been at the national level. Governments have sought to set priorities, to build networks between science and industry and, in some cases, to change their research system and administrative culture. Foresight has been used as a set of technical tools, or as a way to encourage more structured debate with wider participation leading to the shared understanding of long-term issues. In this comprehensive and critical Handbook, cross-cutting analytical chapters explore the emergence and positioning of foresight, common approaches and methods, organisational issues, and the scope for policy transfer and evaluation. Leading experts and practitioners contribute chapters analysing experiences in France, Germany, the United Kingdom, the USA, Japan, China, Latin America, small European nations, Nordic countries and selected developing countries. The book concludes with consideration of the future of foresight itself. This fascinating Handbook will appeal equally to those wishing to apply foresight to their policy or strategy-making activities, and to those studying the theory and practice of foresight. The Handbook will be vital reading for policymakers considering, commissioning, or using foresight, companies eager to use public foresight, as well as academics and researchers in foresight, futures and STI policy and management communities.

STRATEGIC FORESIGHT

A NEW LOOK AT SCENARIOS



ALFRED MARCUS

Strategic Foresight: A New Look at Scenarios

ISBN-10: 0230611729
ISBN-13: 978-0230611726
Author: Alfred Marcus
Publisher: Palgrave Macmillan

Scenario planning is the principles, methods, and techniques for looking forward into the future and trying to anticipate and influence what is to come next. This book provides students and line managers in organizations with the means to create better scenarios and to use them to create winning business strategies. The purpose is to shed new light on scenarios and scenario-like thinking in organizations for managers at every level within a company. The book covers scenarios such as: economic outlooks; political environments; acquisitions; downsizing, and more.

Envisioning the future of health technology

Technology is the ultimate democratizing force in society. Over time, technology raises lowest common denominators by reducing costs and connecting people across the world. Medical technology is no exception to this trend; previously siloed repositories of information and expensive diagnostic methods are rapidly finding a global reach and enabling both patients and practitioners to make better use of information.

This visualization is an exercise in speculating about which individual technologies are likely to affect the scenario of health in the coming decades. Arranged in six broad areas, the forecast covers a multitude of research and developments that are likely to disrupt the future of healthcare.



Updated: September 2012
Sources: envisioningtech.com/health/
Follow: @envisioningtech

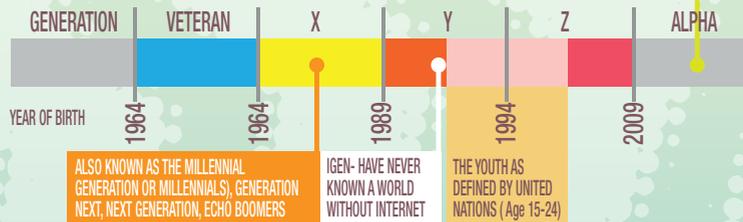
Research & design: Envisioning Technology
Find out more: envisioningtech.com/health/





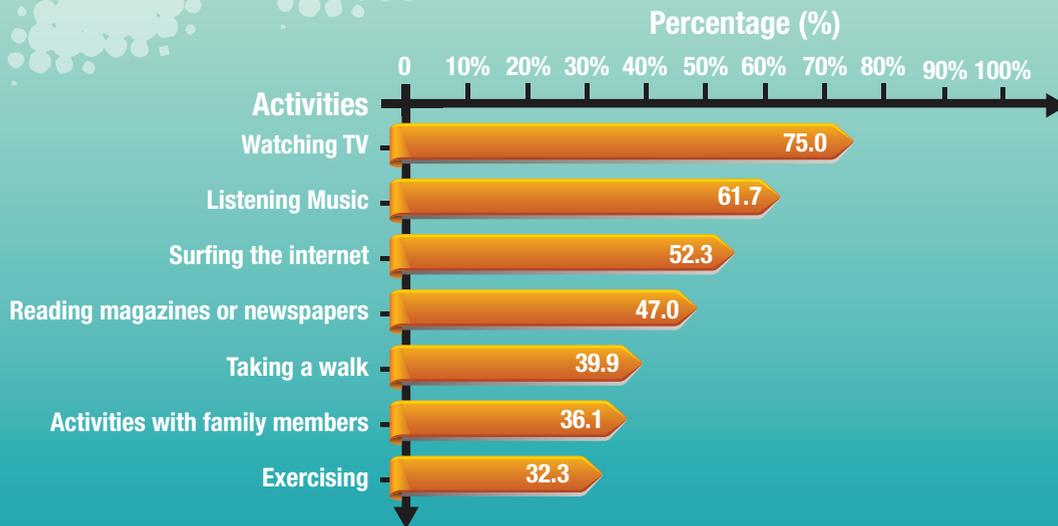
YOUTH-CONSUMERISM

Youth characteristics:



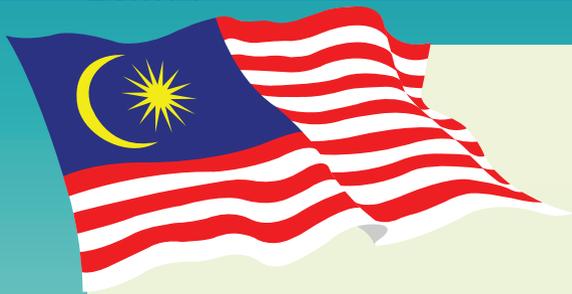
What are the type of activities that are most popular amongst youth?

Five activities that are most liked by young Malaysians

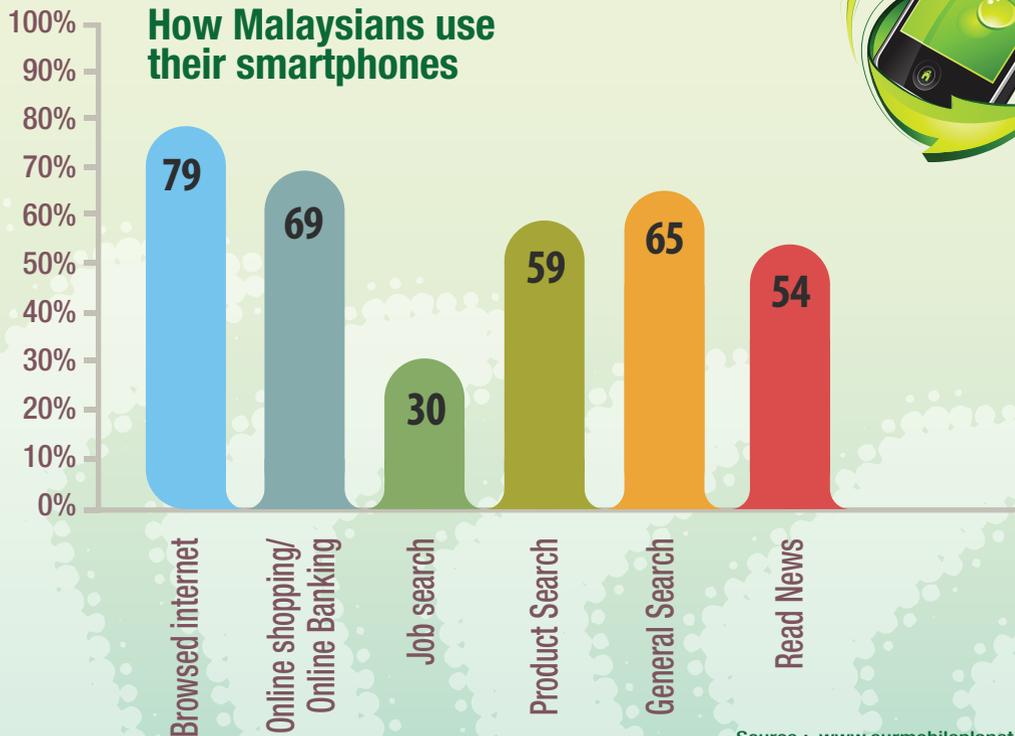


Youth are spending more of their leisure times on entertainment rather than getting involve in healthy activities

Source from : Youth Survey, Social Environment, Lifestyles And Values, GOETHE Institute



Digitized society towards knowledge, creative & innovative lifestyles

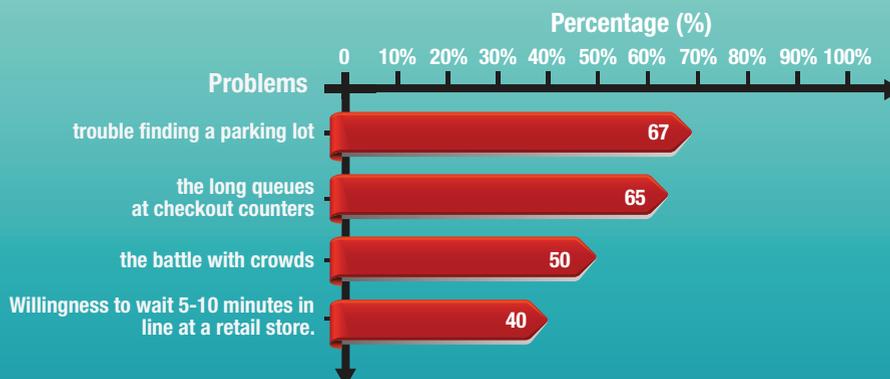


Source : www.ourmobileplanet.com

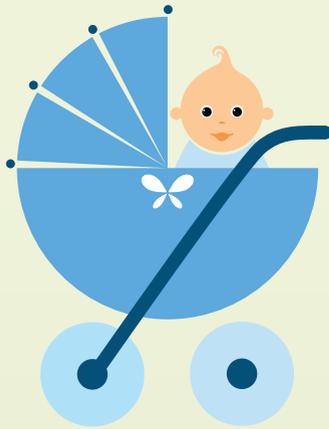
Virtual shopping: the convenient retail therapy

Surfing Internet is one of the most popular activities among the youth. 2012 was the year for mobile commerce as more Malaysians turned to their mobile devices to do their shopping. Malaysian shoppers used online and mobile shopping to get back 36 hours of their precious time to get involve in other activities, including spending time with family and friends

The top pet peeves for shopping in malls:



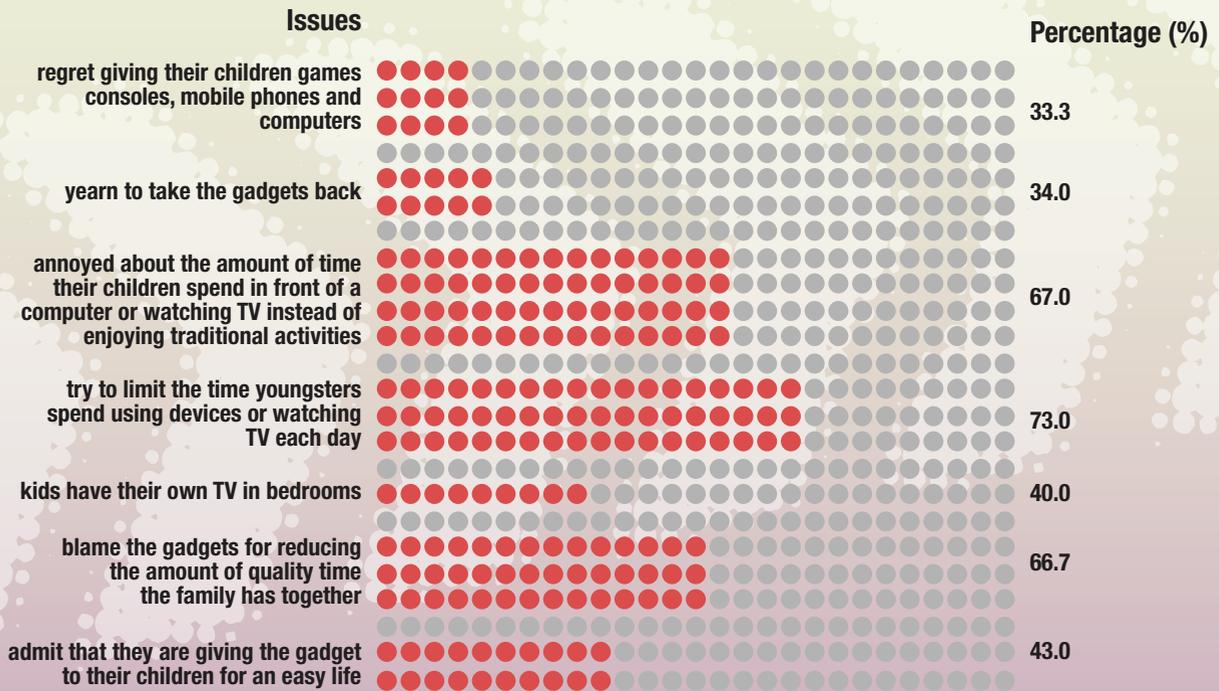
Source : PayPal on the survey 'PayPal Skip the Queues Survey 2012'



Baby & Gadget

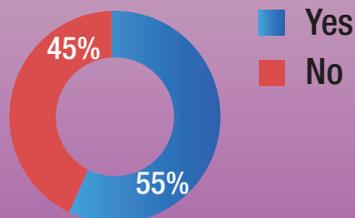
Today, kids are more exposed to technology and various gadgets become past of their everyday lives. Technology has become the way of life and young parents seems to fall prey to this. Reports from Daily Mail, UK and Babies.co.uk reveals the upcoming trend in bringing up children

A survey was conducted among parents that give gadgets to their children in the United Kingdom. The Daily Mail reported some of the issues raised by the survey participants as:

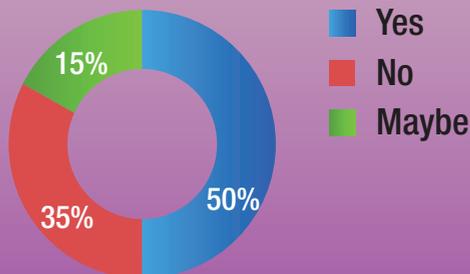


Smart phones and tablets have become parts of everyone's live. Even babies are not spared. Questions posed by Babies.co.uk in a survey showed:

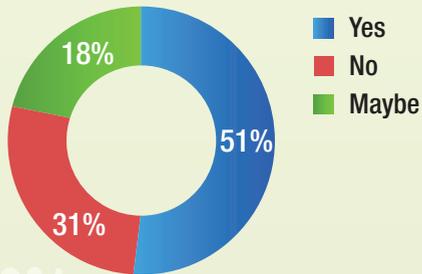
• Do you let your baby play with your tablet/smart phone?



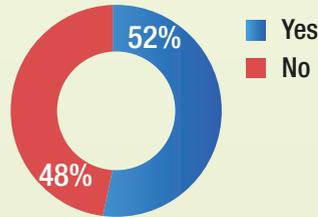
• Do you think letting your baby use a smart phone/tablet helps them learn?



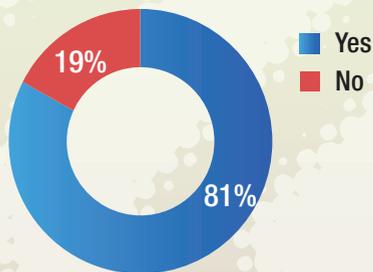
• Does letting your baby play with a smart phone/ tablet too much disconnect them from their relationship with you?



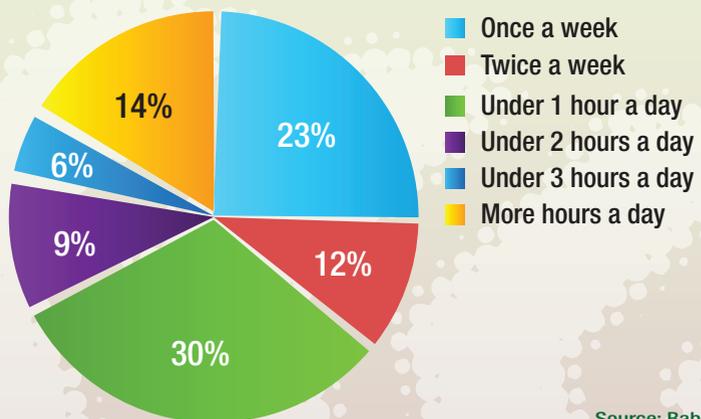
• When a baby plays on a smart phone/tablet does it negatively impact his real world social and communication skills?



• Does the youth of today spend too much time on smart devices?



• How often do your baby play your smart phone/ tablet (if you allow it)?



*Results polled from over 1000 respondents.

Source: Babies.co.uk

Positive and negative impacts of giving electronic devices and gadgets to children

Advantages	Disadvantages
<ul style="list-style-type: none"> • Easier to make children stay in one place • Stimulate sense and imagination • Promote listening ability, learning of sounds and speaking ability • Develops innovative thinking, investigative skills, strategic thinking • Increases children's computer literacy • Develops good eye, hand and mental coordination • Encourages quick mathematical and engineering skills 	<ul style="list-style-type: none"> • Unaided utilization of gadgets • Tends to keep children out of touch of reality • Affects concentration and focus in school works

A LIFETIME OF MEDICAL CHECKUPS



Prevention as the Key to Longevity

By the DECADE

The most common **fatal illnesses** are cardiovascular disease and cancer. While these and other potentially deadly conditions have a variety of causes, **surviving** any of them depends largely on **prevention and early detection**. Regular **medical exams and testing** can **save your life** whether you're 20 or 65.

20s

Early detection is vital in **preventing, diagnosing, and surviving** many cancers and other serious diseases. Start regular checkups and several important tests in your 20s to catch **danger** signals early.

20s RISKS

Women

- MELANOMA**
 - Leading form of cancer in adults ages 25-29.
 - 2nd most common cancer in young people ages 15-25.
- HPV (HUMAN PAPILLOMAVIRUS)**
 - The **leading** cause of cervical cancer.
- HIGH CHOLESTEROL**
 - Can start as early as your 20s.
- BREAST CANCER**
 - Young women with family history are at an **increasingly** high risk.

Men

- MELANOMA**
 - Incidence in young men increases **3.1%** annually.
- TESTICULAR CANCER**
 - Occurs most often in men ages 20-39.
- HIGH CHOLESTEROL**
 - Leading precursor of heart disease.

TESTS

- Annual skin check by dermatologist for signs of skin cancer.
- Blood pressure check at every doctor visit.

TESTS

- Testicular exam **annually** after age 20.
- Cholesterol test every **5 years**, starting at age 20.
- Skin check by dermatologist **annually**.

30s

Both men and women are at greater risk for heart disease and **Type 2 diabetes** after age 30. **One in 10** cancers is diagnosed in people ages 25-40.

30s RISKS

Women

- CERVICAL CANCER**
 - #1 cancer in woman ages 30-40.
- BREAST CANCER**
 - High risk/family history
 - Increases incidence Under age 40.
- TYPE 2 DIABETES**
 - 18% of women over 30 have Type 2 diabetes.

Men

- TYPE 2 DIABETES**
 - 20% of man over 30 have Type 2 diabetes.
- TESTICULAR CANCER**
 - Accounts for 15% of cancer in men 30-40.
- MELANOMA**
 - 11% of cancer in men over 30.
- COLORECTAL CANCER**
 - 10% of cancer in men 30-40.
- HEART DISEASE**
 - #1 killer of men over 35.

TESTS

- ✓ Pelvic exam and Pap Smear annually
- ✓ Cervical abnormalities.
- ✓ Breast exam annually
- ✓ Mammogram for women with family history of breast cancer.
- ✓ Blood sugar test every 5 years. Annually if overweight.

TESTS

- ✓ Blood sugar test every 5 years. Annually if overweight.
- ✓ Annually testicular exam performed by doctor
- ✓ Cholesterol testing every 5 years.
- ✓ Screenings for colorectal and prostate cancer if high risk.

40s

In your 40s, the effects of physical aging become more pronounced, and both men and women are at an increased risk for many forms of cancer.

TESTS

- ✓ Bone density testing Every 3 years if under 127 pound or at risk for Osteoporosis.
- ✓ Annual mammogram for all women.
- ✓ Continue blood sugar testing and cholesterol testing annually to detect/prevent heart disease.
- ✓ Ovarian screening for post-menopausal/high risk women every 3 years.

40s RISKS

Women

- HEART DISEASE**
 - #1 killer of women ages 40-50.
- BREAST CANCER**
 - #1 cancer of women ages 40-50.
- OVARIAN CANCER**
 - Most common after age 40

Men

- HEART DISEASE**
 - Men over 40 are 3x more likely to have heart diabetes than women over 40.
- COLORECTAL CANCERS**
 - Account for 60% of cancer in men over 40.
- MALE CANCER**
 - Men over 45 or with family history are at higher risk for prostate cancer.
 - Continued increasing risk of testicular cancer.

TESTS

- ✓ Blood sugar testing every 3 years.
- ✓ heart disease screening every 5 years annually if high risk
- ✓ Colorectal screening annually.
- ✓ Prostate exam if high risk or experiencing symptoms, such as trouble urinating or pelvic pain.
- ✓ Continue annual skin exams for signs of skin cancer.

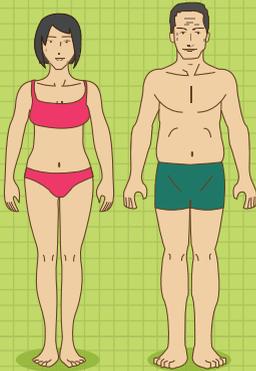
50s

After age 50, risk for heart disease, many cancers, stroke, and Type 2 diabetes increase exponentially

50s RISKS

Women

- OSTEOPOROSIS**
 - Half of all women over 50 will break a bone due to osteoporosis
- COLON CANCER**
 - 2nd most deadly cancer for women.
- OVARIAN CANCER**
 - Most common after age 50
- HEART DISEASE**
 - #1 killer of women over 50.
- STROKE**
 - 25% of stroke occur before age 65.



Men

- HEART DISEASE**
 - #1 killer of men over 50
- PROSTATE CANCER**
 - Men over 50 at highest
 - 1 in 38 men ages 50-59 will develop prostate cancer.
- COLON CANCER**
 - 13% of colon cancers diagnosed between ages 45-54.
 - 20% of colon cancers diagnosed between ages 54-60.
- STROKE**
 - 25% of strokes occur before 65.
 - Risk of stroke more than doubles every decade after 55.

TESTS

- Bone density testing every 3 years
- Colorectal screening every 5 years.
- Ovarian screening every 3 years.
- Coronary screening annually, including EKG.
- Blood sugar testing every 3 years, annually if overweight or at high risk.
- Continue annual skin exams, Pap, smear, and mammograms.

TESTS

- Prostate cancer screening every 3 years. Annually if high risk.
- Colon cancer screening every 3 years. Annually if high risk.
- Cholesterol testing annually.
- Continue testicular exams every 3 years.

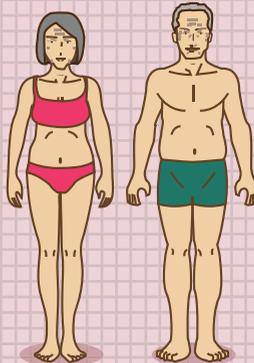
60s

The risk of Type 2 diabetes decreases for both men and woman after 60, while the risk for heart disease and many cancers increase sharply.

60s RISKS

Women

- OSTEOPOROSIS**
 - 1 in 2 women over 60 suffer a fracture due to Osteoporosis.
- COLORECTAL CANCER**
 - Most colorectal cancer in women occurs after 60.
- STROKE**
 - 75% Of strokes occur after 65.
- HEART DISEASE**
 - #1 killer of women over 60.



Men

- PROSTATE CANCER**
 - 1 in 15 men ages 60-69 will develop prostate cancer.
- COLON CANCER**
 - 20% of colon cancer diagnosed between ages 60-64.
 - 24% of colon cancers diagnosed between ages 65-70.
- STROKE**
 - 75% of strokes occur after age 65.

TESTS

- Colorectal screening every 3 years
- Colonoscopy screening every 5 years.
- Bone density test every 2-3 years
- The following should be continued annually:
 - Mammogram
 - Pelvic exam
 - Pap and smear at physician's discretion
 - Coronary screening.

TESTS

- All of the following should be done annually:
 - Cholesterol testing
 - Coronary screening
 - Prostate exam
- The following should be done every 3 years:
 - Colorectal screening.

Prevent Your Way to Healthy

- Whether in your 20s or well into your 70s, prevention is the key to sustaining **health and vitality**. Follow this simple guide to maintain good health and **peace of mind** from youth well into your golden years.

SOURCES: <http://www.cancer.gov>, <http://www.labelstoneonline.org>, <http://www.cmed.umich.edu>, <http://www.diabetes.org>, <http://women.webmd.com>, <http://www.melanomafoundation.org>, <http://rex.nic.nih.gov>

MAP THE FUTURE

As a strategic policymaker or stakeholder, you can help map out a desired future for Malaysia

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