The family, friends and colleagues of Keith Roby; distinguished guests, and fellow fragile human beings, last year I was working in Fiji. One day, something happened. Let me tell you about it.

During my last trip, I was, for me, quite calm. And as you all know, calmness doesn't come easily to us Westerners - so I was pleased. I thought: whether this was the first fluttering of wisdom, or just the announcement of senility, well... I'll enjoy it anyway.

But halfway through, I suddenly lost it - and got stressed. I was running late for an appointment - it was actually with WHO, who often make me nervous - and rushed into a downtown Suva office building. The ground floor is a busy shopping mall, and not sure where to go, I find a desk in the midst of it.

Leaning on the desk is a security guard. He's a big Fijian bloke dressed in a white shirt with tie - but with a short Fijian skirt. I rush tip to him.

'Can you please tell me where the WHO office is?' say I.

He unwound. He rose above me. I was certain he played in the front row of the Fijian national rugby team. Then he looked at me - straight. For what seemed like 10 seconds. Only then he spoke.
'Good morning,' he said. There was another silence. I looked back. Only then he smiled - sort of.
'Good .... morning,' I said.
He paused again, and now almost beaming. 'And sir, it's on the third floor, and you can take the lift over there.
So let me really begin, now, as we begin to look at the question of what makes us healthy - and address you properly - and say in the same way to you all - Good Evening!

Audience is encouraged to reply. At first a few 'Good Evenings' ensue - then a 'Kale Mera' and a Salaam Alekum - and eventually a 'Namaste.' PU to the audience: "Even a 'Namaste!' - which, so beautifully, means - literally 'I salute the God within you.'

And having thus expressed a greeting - and had it returned with such fecundity -let us jump from a lush tropic island in the Pacific Ocean - and to the interior of our old dry land....

**Music track of single didgeridoo slowly rises then falls to background.**

Let us together picture a small band of aborigines - back - a good time back. They are way out bush, besides a rock face. A father gathers up his young child - and with the help of the child's mother, hoists the child up, and in front of him. Together, gently, they place the small hand against the sheer face of the rock. And a third person -a helper-draws up, and filling her mouth with red ochre dust, blows a fine cloud on to the tiny hand - outlining it onto the rock.

And 200 years later - another little band stumbles upon the rock face, and looking up ... this is what they see...

![Figure 1: Stencil of Aboriginal hand on rock face.](image-url)
Slide of red hand over swelling didgeridoo, slide goes off, music hushes to silence.

It is my hope that this image will stay with you - perhaps along with the two words of salutation from our friend from Fiji - to dwell healthily within, long after the rest of my words have faded.

For my simple purpose here tonight is to share with you my belief that for us - for our human species - to find a healthy future, indeed to find a future -we need to take heed of these two people: from the first, the greeter, we can extract a new measure of kindly respect for all our fellow humans; from the second, the toucher, we can learn to practise the same quality towards the earth - that ultimate source - and on which we are all dependant.

Now there is a strangely haunting saying that that most interrogatory of human cultures -the Jews - passes down to us. Of course it must begin with a question.

'What is truer than the truth,' they ask.

And the answer?

'The story.... '

But the ancient Chinese seem to beg to differ, reminding us that the picture can outshine any number of words.

And we all know that sometimes music - that most mysterious and ancient form of expression, of celebration, of joining - can sometimes out-haunt any image, or any assemblage of words. And this is because each - the story, the image, the song - is art. And art of any sort, works because we are something more than an assemblage of molecules that usually ticks over; that sometimes doesn't tick over; and - eventually - always stops ticking.

No! - we are imaginative beings. And here I appeal to that imagination, because I believe it is only that numinous resource which can begin to help us - at these desperate times - to find - or rediscover - a different way to be human. And it is only by following that process - that we can secure our health.

But now - let us become a little more mundane - and - for a few minutes - put our sweetly resounding musical souls aside - and engage our left brains - the seat of reason.
Now it is true this apparently sweet reason has given us antibiotics, and safe motherhood, and plumbing, and relativity. But it has also given us computer controlled weapons that explode a few metres off the ground - and can be programmed to reduce all the buildings and their inhabitants to vapour.

Or - in different circumstances, a change of program - these weapons can remove all the humans - take them out is the military expression - leaving the buildings more or less intact. Indeed - without minimising this most serious of topics - a witty and iconoclastic friend of mine says that the latter kind of weapon - removing people, leaving buildings - has been already tested in Australia - in fact in Canberra ... and so let us see if - rather more coolly - we can examine the following set of related questions and even handle a table and a graph or two.

**What has happened to human health over the last millennia?**

**Why have levels of health improved? and**

**Why are these improvements confined to some groups and not others?**

As I see it the last few years has provided much new information to help us understand some of the answers to these questions. In fact we might tackle them by placing our knowledge into an historical context - and compare the growth of our understanding of the issues over the last 25 years.

In brief then - what did we know about health and development 25 years ago - and what do we know - now in 2003?

I want to summarise the matter into 3 major points.

**First in 1975:**

We had come to recognise that most humans inhabiting the globe were poor, rural and young, and - an astonishing discovery - at least half were female. Further it appeared these groups possessed a shocking - and double - disadvantage: not only did they share the overwhelming burden of disease, but also they were unable to find access to those health services that might assist them to withstand it. In the broadest terms, three quarters of the world's population were poor, but in terms of disease they were gripped by nearly 90% of it; yet they took up only a skerrick of the available effective health care.
And now?
In 2003, despite major demographic convulsions - urbanisation, ageing, and the increased power of our interventions and communication - all of which have produced new problems - nearly one quarter of the world's population remain in absolute poverty, carry the overwhelming burden of the world's disease, and see little of health care that can help them.

But let us now return to what is thought by some to contain the highest truth - the story: let us now hear from one of these human beings who makes up one millionth of the one quarter at the bottom of the human pile - let us give a face to a person who is poor and young and female - and see what happens when she gets sick.

Case History by Dr Amatul Uzma
Here is the story of a woman we call Kulsum, and as recorded by one of my students, Dr Amatul Uzma in her homeland of Bangladesh. She was investigating the health care seeking behaviour of post-partum mothers living in a slum in Dhaka, the capital of Bangladesh. In essence, she wanted to know what happened when a poor mother had a baby - who did she attend, and what governed her choice of carer.

The reader should first try to picture the slum: a swampy plot of about two hectares containing over 5000 squatters, packed into over 700 flimsy structures with no running water or power, ranging from a few bits of tattered cloth, to a tiny shack of tin and boards.

In this case Dr Amatul Uzma will tell you the story we gathered about the life of one of those who lived there - and about her last pregnancy. From time to time we add a few explanatory comments.

Auditorium lights dim - slow rise of music - of a woman's wail from 'Geisha'- Dr Uzma has emerged from the audience and is suddenly caught by one spotlight seated on a low table in the front of the auditorium - Dr Uzma begins reading over fading wail.

The Story of Kulsum

Her name was Kulsum.

Kulsum had spent the first 13 years of her life in a poor rural village; her father was a landless farmer; and she was one of seven living children. Before puberty she was married off to a man called Suruj Mia, and two years later, a thin 15 year old, she gave birth to her first son. Others followed.
Eventually her husband reported, ‘She was too thin to be a wife. I thought she would get big after having kids - but it was the other way round. The more she had children, the more she became thin.’ Suruj Mia stated that Kulsum was ill for all of her pregnancies, and could not adequately undertake her domestic tasks.

Her fragility became successively worse with each pregnancy. Said her husband: ‘My mother told me that there is an asor (bad spirit) with Kulsum, and we did everything to get rid of it. You won't understand this. You are town people. There are lots of bad spirits. We treated her with kabiraji (herbal medicine), and used the mowlanas (spiritual healer). (But) ... she had a strong asor’

[During her first four pregnancies, all in the rural village, she never consulted either a doctor, or a ‘western care provider,’ relying on her family, and the local healers, here the herbalist and spiritual healer. Together they provided care at delivery and various herbs, potions and rituals.]

At aged 20, [escaping rural poverty and natural disaster], the [nuclear] family moved to Dhaka, and the slum. Three further pregnancies followed. There she visited the local Traditional Birth Attendant, who practises a mixture of traditional and some western care, and conducts most of the births in the slum for a small fee. Further, during the sixth of her 8 pregnancies, for the first time she had actually consulted a western doctor: escorted by a [government] health worker from a local clinic, she had attended a government hospital, and received tetanus toxoid. And, further, she had been told she had a serious disease, and needed urgent treatment.

‘The doctors said that she had jokkah [local dialect for tuberculosis],’ said her husband, ‘and that she had to take medicines for 18 months, and should never get pregnant again. They asked her to deliver the baby in hospital, and they would do something to make her sterile. They wanted me to take her to another hospital -to the Dhaka Chest Hospital. I have never heard of a disease for which you are supposed to take medicine for 18 months and for which you should not get pregnant. Pregnancy.... is controlled by God.... I think she was responsible for what had happened.... She never listened to me or my mother... her movements during her pregnancies were wild.... She attracted evil spirits...’

[As a result of these beliefs, and also because of cost, despite her own apparent willingness, Kulsum did not attend the Chest Hospital, and did not receive treatment for her tuberculosis.]
During her eighth, and final pregnancy, despite further herbal and traditional treatments, she became increasingly ill. Eventually she went into labour; but became distressed, and the Traditional Birth Attendant was called. Soon after her arrival, the patient collapsed into coma.

She was immediately transferred by 'baby taxi' [motorised three wheeler] to the local government hospital. But the trip was too late.

Kulsum died in hospital immediately after the birth of a live baby.

Kulsum was then 26 years old. She left 7 living children, including the newborn, a husband Suru, Mia, a rickshaw puller, in their one room shack in the slum of Dhaka.

Spotlight off - wailing music rises - then falls - auditorium lights rise.

This single case history illustrates many of the characteristics of developing societies outlined above: Kulsum is poor, and young, a rural migrant to the great city, and cut off by poverty, lack of knowledge and personal autonomy from care that could have saved her life. Her poignant trajectory illustrates clearly the nature of 'first contact' care as experienced by many of the world's poorest.

Influenced by a host of inter-related factors, Kulsum seeks care from a wide variety of persons. 'First contact care' - the first set of persons chosen by the patient and their family to attend them in their illness-is an intricate, dynamic and individualised process, one influenced by many factors of which cost and belief are two of the most crucial. But-here for Kulsum-the process did not work - and this woman did not find a way to access what Schumacher calls 'useful knowledge' - that which he sees as the greatest gift we can give to others.

So we have looked at the first if these issues - and asked where are the biggest problems of health in the communities of the globe. Now let us turn to the second. What is the nature of the link between wealth and health?

**Link between Wealth and Health**

Twenty five years ago, we' were beginning to understand that though a nexus existed between economic growth and health, we suspected the relationship was not simple and direct: although economic growth, as measured by rising per capita GNP was usually strongly associated with improved levels of health, several countries had fuelled spectacular- rises in
health without major increases in income. Further a number of recently enriched countries retained abysmal health indices. In other words some rich countries had poor health indices, and some poor ones delivered very good ones. The change from poor to good health - from low life expectancy to high, from high mortality to low- was given the name of the health transition.

In 2003, it is now clear that the health transition results from several interrelated factors:

Rising income is essential to lift the poorest from their dreadful base, so they can join 'the rising curve of health,'

But it is capacity building - 'social capital' - investments in education, and particularly female education, in public health and housing, in equitable distributions of staple goods and services-including basic health services themselves-that then build the fertile conditions that make sturdy those millions of little plants, our human lives. Thus all countries that have made the health transition, began by first reducing absolute poverty - but some continued to get healthy - but didn't get rich, and they did so by choosing to use their scarce resources to build up their social capital.

and, crucially, research is now beginning to establish that after the earliest stages of the health transition, human autonomy - individual and community-and human relationships are fundamental to human mental and physical health: without meaning, purpose and nurturing human care, our health levels deteriorate - and this follows even if we are rich, slurping material goods from dawn to night, before retiring to a warmed water bed and a remotely controlled bedroom TV Then, hungry for real contact, we become ill, or kill - each other or ourselves.

This last process has been illustrated dramatically in the health statistics of many of the former communist nations since their precipitation into the arms of capitalism. While behind the Iron Curtain things were not great, their peoples' health was not bad: now in several of these communities, since entering the embrace of that seductive siren the free market, mortality - particularly for men - has risen drastically. It seems the loss of the supports of work, of family and of the welfare state has precipitated a new plague, one that has set the scene for deaths so serious to be unprecedented in peacetime.

Let us look at this in a little more detail.

**Table 1**: Demographic and health parameters of low, middle and high income countries
Table 1 shows three sets of selected countries: Laos, the Central African Republic and Bolivia make up the low income counties; Thailand, Malaysia and Mexico the middle; and Australia, the UK and USA the high. It is clear that in broad terms, in the lower income counties, the population is not only younger, and more fertile, but life expectancy, and even more strikingly, healthy life expectancy - of how long one can live a life relatively unencumbered by disease or disability - is much shorter. This key relationship between life expectancy and income is explored further in Figure 2.

Figure 2: Income and Health
In Figure 2, we see that in a wide range of countries, if income is plotted against life expectancy, while there is a sharp rise in life expectancy as a country lifts itself from being very poor, when income continues to rise after basic needs have been met, the rise plateaus off equally sharply. But most crucially, we note that there are a number of countries -here China, Sri Lanka, Cuba, Costa Rica and Chile -which, while not being rich in terms of income, have gained very high levels of health. If we had included a State -the State of Kerala in India-we would see an even more striking disjunction, for Kerala is one of the poorest of the states of India, a poor country itself, yet possesses health indices comparable with our own.

What then have these societies done? Or, equally, what have those countries that we can see in the Figure are way off the curve in the opposite direction - and are rich in wealth and poor in health - not done?

In Figure 3 we find some more evidence on the link - and the intriguing disjunctions-between two of the goals-wealth and health-we humans pursue so avidly.

Figure 3: Improvements in income and the reduction in mortality
Figure 3 - which here uses infant mortality rate, a good proxy method of measuring overall health, and plots it against adjusted GNP per capita - again shows that in both the upper curve for 1952, and the lower curve for 1992, mortality falls as income rises. However, for any given level of income, in the 40-year period between the curves, mortality has almost halved: this highlights that factors other than income are playing a major role in mortality reduction. The WHO Report from which this is taken, goes on to draw on this and other evidence now available indicating that however important income may be, these other factors - including access to basic health technology, and female education - are crucial. The next figure gives us another twist on this rather tricky issue.

**Figure 4:** The fall and rise of TB over the last century
When teaching medical students or doctors I always ask them to examine this figure, and ask them to venture an explanation for the precipitous fall in rates of TB over the century. Usually, they go first to their profession, and its magic bullets - the antibiotics. And so I can disabuse them by then pointing out that the major fall in rates of this devastating disease occurred long before antituberculous drugs were discovered.

No! - the most important of the factors responsible for the sharp decline in this plague reside in the improvements in housing and nutrition that built up human immunity and 'community'
in the first half of the century - and in which clinical medical practitioners were impotent bystanders.

And in the upper figure in Figure 4, we see highlighted again the crucial role of human culture in its widest sense: this simple curve of TB mortality plotted against time indicates that once again - despite the seeming wonder of our clinical interventions - at the end of the century the scourge is still up and running - indeed hitting back strongly.

But let us jump back two millennia - and call now upon the strangely apposite reflections of an ancient Greek - if recently interpreted by a modern Brit. Now one Alain de Botton's lovely - and to me successful - purpose was to convince us of `The Consolations of Philosophy.'

The Expense of Happiness

**Figure 5:** Happiness and expenditure for the friendless.

Figure 5, modified a little from de Botton, explains Epicurus's understanding that, truly, if we are destitute, happiness is impossible. Yet-after satisfying our basic needs, in the absence of such liberating influences as friendship and freedom, our capacity to enjoy remains an emasculated thing. But - with those liberations?
Here we see that, while our ration of joy gains little from increasing loads of money, how much greater is such joy when, released from the triple yokes of poverty, oppression and loneliness, we can be both free to be ourselves, and to find ourselves reflected, concentrated, intermingled, warmed by the firelight of friends and family and community!

And dear reader -I ask your imagination to take note of the sweet shapes of these Epicurean curves -redolent of food and Rubens, not anorexia and the modern model - and slot them away= in your brain not far from the earlier generous lines plotting income and mortality above.

**Figure 6: Happiness and expenditure for the liberated.**

Now let us turn to the *third and final* of my conclusions on the new understandings we have accrued over the last 25 years.

In 1975, a few prophets - Schumacher, and Gandhi even earlier - knew that our human lives - not just our existence, but also the meaning with which they are imbued - were inseparable from nature. But, further, they saw that the globe, and the ecosystems it harbours were in danger: and so was the human race that depends on them.

Let us here take a little sidestep - to The Blackwoods Magazine of October 1953.

Now my contents page of the monthly Blackwoods tells us much about its readers: we picture the reader of the magazine as most likely an ex-colonial, and more often than not of the sub-class male and military. He may read it in his club, over a brandy and soda.
Right inside the front cover is an advertisement - and that caught my eye: it is entitled - *Site for a City*.

**Figure 7: Site for a City**

![](image)

My friend and story teller Deborah Pearson always tells me I am too meddlesome with stories: just leave the story to tell itself she says - sometimes even raising her voice a little in doing so. So do I need - after drawing your attention to the story under the picture - to say any more?

But let me then - just say this.
In essence, the underlying assumption of the developers is not just that their culture - based on the confrontation with, and exploitation of nature - is desirable, but it is superior and inevitable. Let us put aside the issue of the health of the black man as he confronts the new culture - the catastrophe of contact - and recognise that the development of the new city with its roads and power stations and so on will be paid for by the earth's resources - and they are non-renewable. In a nutshell, this little vignette reveals the track on which we are treading: the liberation of wealth has been inextricably tied to both resource depletion - and increasingly - to pollution of those finite resources.

Now - here in essence is my third and final point on what now we know about our health. We know that the fundamental eco-systems on which we as humans depend - clean air, clean water, and clean food - are becoming increasingly damaged. Using the language of the accountant: the cost of our wealth and health is being paid for by the globe's capital. Or - more poetically: our mother - our earth - is getting sick, and at the expense of some of her children.

The exploitation of the planet, based on a greedy and devouring system which - as we see from the story of Kulsum above - not only places riches for some over the human needs of the many is taking us to the precipice.

So let us return to Epicurus and de Bolton and happiness and wealth. And then let us look back at the graph - Figure 2 - we charted between health and wealth. Is there not a remarkable similarity between these curves - and so between what we designate happiness or health? And is it too wild to postulate that those outliers in Figure 2 - those communities in Kerala or Costa Rica that gained good health in the absence of great wealth - possessed something closely akin to that functioning sense of freedom and support that arises from human community? In short, I am suggesting that what Epicurus has called the quality of happiness and what the WHO calls the quality of health, have much in common, indeed the measuring of one, is in big part the measuring of the other.

Having reminded ourselves of the curves of happiness with and without friends, and postulated a substitution of health for its close relative happiness, let us now add a new curve, this charting the depletion of the earth's resources.

**Figure 8:** Happiness, health and the earth’s resources.
Now we see that while health and happiness may not continue rising with increasing wealth, there comes a point when the accelerating consumption which follows the wealth creation, begins to bite at the stocks on which we depend. And as we follow the curves, there must be a time when, since the stocks provide our sustenance, our health must begin to suffer. Many suspect we are now approaching this point.

So good people - how can we, bring this together- and what can we do about it. As I see it, there are just two 'conclusions that arise from what I have been saying - both of which I must warn you are uncomfortable.

First, 'globalisation', if based on a model privileging consumption and capital investment for the quickest returns, and overriding longer-term social investment, will produce not only new threats-including new diseases (HIV), or SARS, and old scourges (arms trade and war) - but will lead immediately and inevitably to a world of winners and losers. And the losers-or those who think they are losers -can now be very dangerous - as Sept 11 has taught us. But further, in the medium to longer term, we, all of us, Gaia's offspring, will be the losers.

Second, and following the first: we now live in a post-culture: the western dream of endlessly rising wealth and consumption is not only impossible, but, in the longer term, both dangerous and empty.

Thus a way of living that is harmonious - to each other, to the globe - is fundamental to a healthy future. And we need to start with the lessons we have outlined above: we must shift
our investment to our social and human capital, and to ways of strengthening its protection
and governance.

But - and here's the rub - we can only do this if we develop a different attitude: we need to re-
construct a relationship of respect- of reverence not utility - with both our fellow humans, and
the natural world.

And to do that we will need to engage: we will have to begin the business - the joyous
vulnerable terrible business - of making a relationship.

And it is precisely this - the need for relationship, for reciprocity - that the Fijian security
guard was reminding me.

**Auditorium lights dim, music from Miles Davis rises, Peter Underwood leaves podium
and joins the audience, then, over the fading music, we hear PU’s recorded voice over a
visual of the globe flying in space.**

And, also held in the Fijian man's words - for after all, these few make a story, a poem, and
so contain more than the words themselves - were the lovely echoes of these sayings of other
sages:

`Small is beautiful,' (EF Schumacber);

`The problem is not how to get cured, but how to live,' (Joseph Conrad);

`Love and food are equally necessary for our survival,' (Lao Tsar);

just, participatory and sustainable society..., Keith Roby.

`Only connect,' (EM Forster).

So these words I think remind us that a healthy future for our species has to be practical yes -
but it must first salute and enter that which sets us apart, our humanness: we need to join our
imagination to our reason. Of this enjoining, I feel Keith Roby would approve.

So - to you all fellow human beings - and to Keith Roby - inspirer, and wherever you are -and
for all our sakes -Good.... Morning ... and-Namaste.
Peter Underwood's recorded voice fades, music rises, visual of globe fades to picture of Figure I of red hand, which holds to presentation ending on last bars of Miles Davis.

Questions

During a short question time that followed the presentation, the following figures were shown to illustrate some of the issues

**Figure 9:** Advertisement for the Serbian Chamber of Commerce in 1991:
The glorious simulation of a future in which the motor car holds pride of place; note the date, just before the Balkan War.

![Image of Serbia Gateway to the 1990s](image)

**Figure 10:** Lost Tomatoes: over 80% of all known tomato species have been lost over the past 100 years: note the marvellous names.
Conclusion

After the vote of thanks by Professor Kateryna Longley, Pro Vice Chancellor (Regional Development), Peter Underwood asked leave to reply, and stated to the audience:

What I have been saying tonight can be placed into one sentence: "Our human species is now skating on thin ice, and, as my old friend Robin Winkler used to say, quoting a pop song - 'if you're skating on thin ice, well, you might as well dance.'"

**Figure 11:** Lion and Porcupines
Audience leaves auditorium to Tracy Chapman `The promise' with visual of lion and porcupines with no caption

Credits, Acknowledgments and References

Music:

`It never entered my mind' by Miles Davis and company, courtesy of Capitol Records:

`The promise' by Tracy Chapman, courtesy Elektra Entertainment;

The haunting wail was from `Geisha' by Julian Swales, courtesy of ABC's Radio National and Michael Shirrefs:

Didgeridoo music `Boomerang' and `Kookaburra' by Richard Walley, courtesy of Sunset Songs and Australis Music.

Thanks:

I wish to thank in particular Tim Dunn for his creative and patient technical production;

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Peter Newman, Dora Marinova and the ISTP staff and students for their sympathetic support of my approach.

References and Further Reading:

Here I wish to express my debt to the work and influence of Professor David Morley and to two outstanding Australian scholars, Professors IC Caldwell, and AJ McMichael; McMichael's latest book is the fine 'Human frontiers, environments and disease', published by Cambridge, 2001. The work of my hero EF Schumacher seems to me to be getting even more resonant as time passes; his 'Small is beautiful', still easily obtainable, was published by Sphere in 1973. I have drawn extensively in this lecture from a chapter by Underwood, Ali and Owen entitled 'First contact care in developing countries,' in the Oxford Textbook of Primary Medical Care shortly to be published by Oxford; the case history was abstracted from Dr Amatul Uzrna's unpublished MMedSci thesis entitled 'Mothers' health during the postpartum period in an urban slum in Bangladesh,' UWA (1996); Alain de Botton's 'The consolations of philosophy' was published by Hamish Hamilton in 2000.