

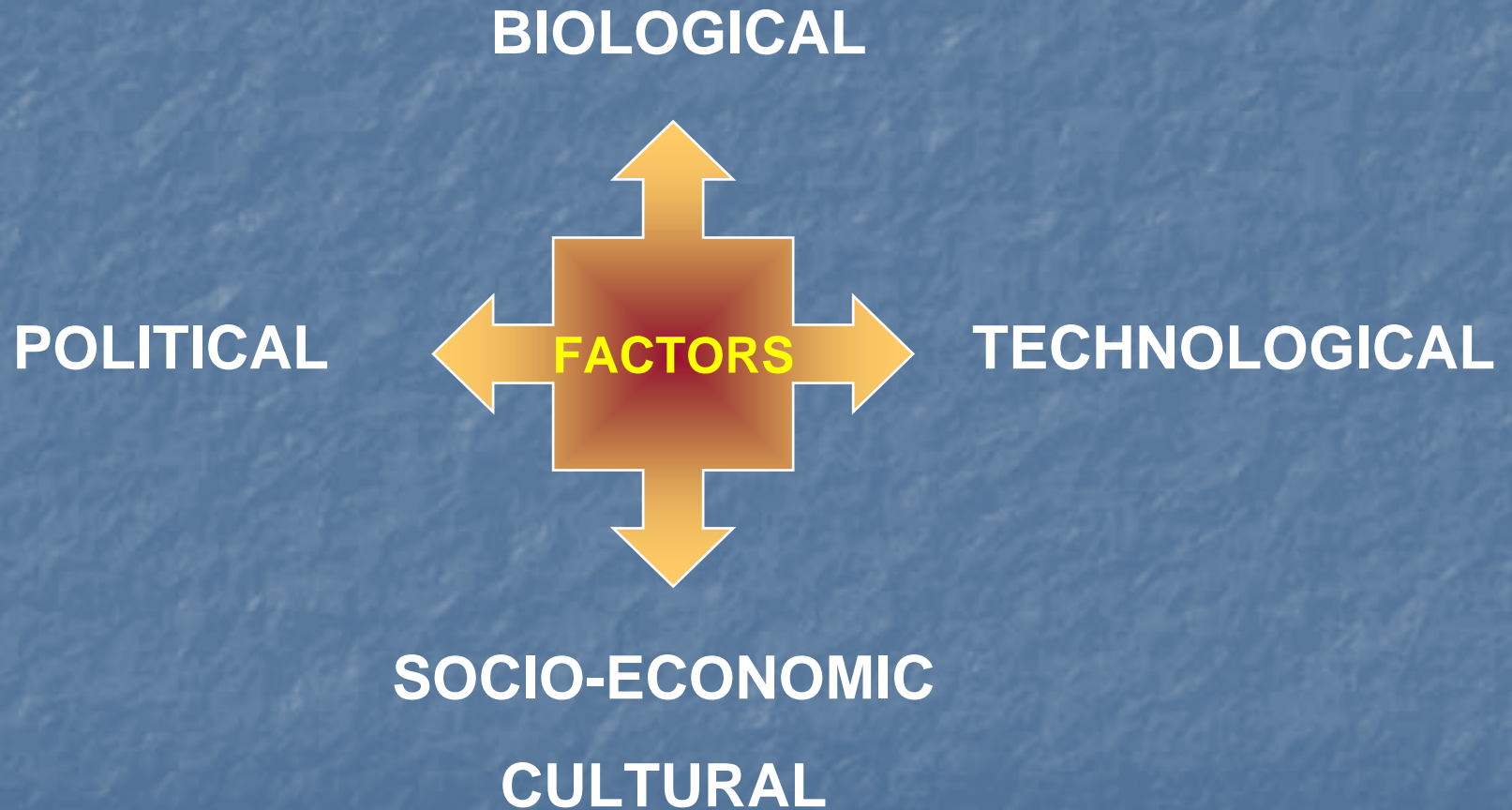
The ethics of diagnostic technology usage

A personal viewpoint

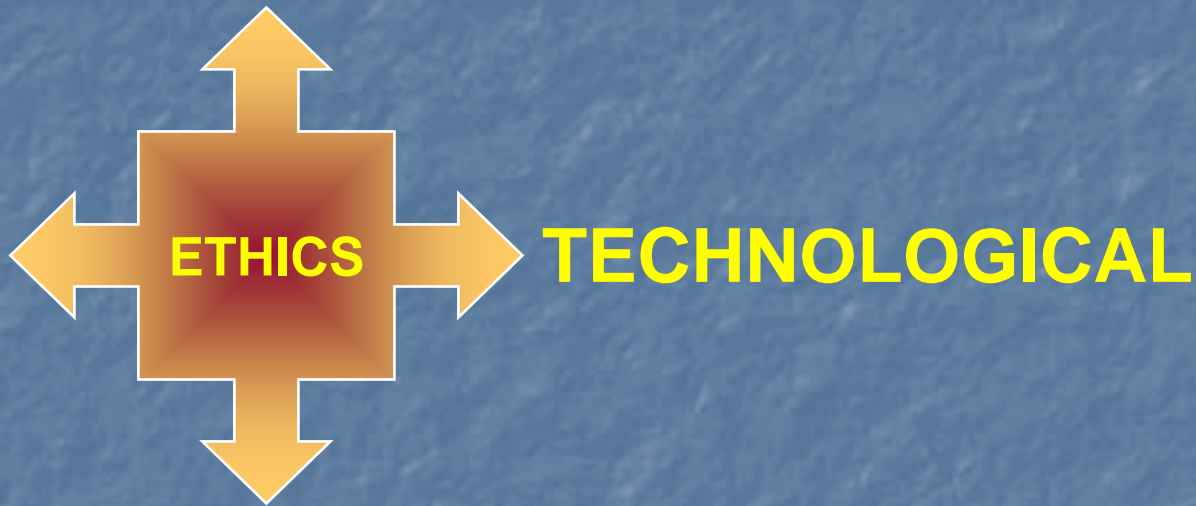
Arjun Rajagopalan
FRCSC, FACS

Trustee & Medical Director
Sundaram Medical Foundation
Chennai, India

Healthcare ethics



Healthcare ethics



“Any sufficiently advanced technology is indistinguishable from magic.”

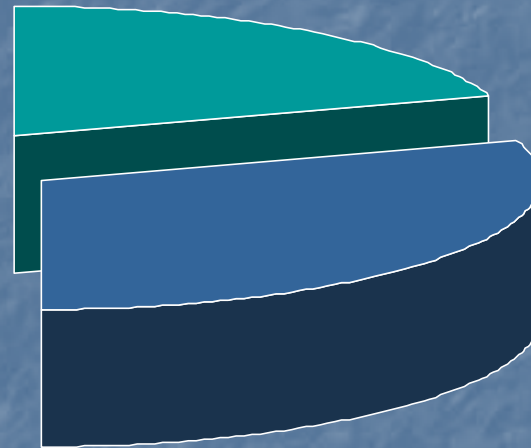
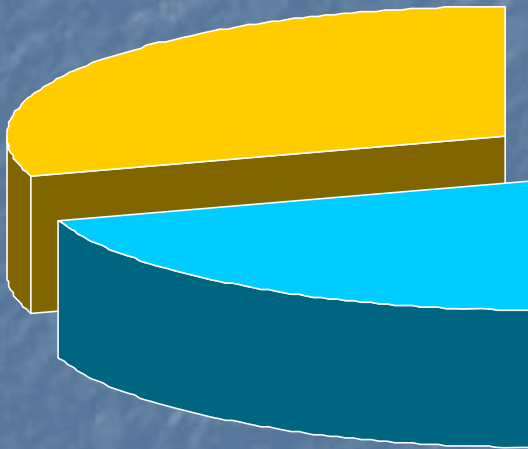
-Arthur C. Clarke



The hospital bill

Hospital charges – 30%

Doctor's fees – 20%



Investigations – 20%

Pharmacy – 30%

Costing test

I: Fixed cost

- Employee
- Maintenance
- Rent/Space
- Admin
- IT
- Interest
- Depreciation
- Rates & taxes

II: Variable cost

- Consumables
- Power/Utilities
- Inventory costs
- Professional charges

III: Factor in:

- Capital employed
- ROI **No different from any business**

A typical order

- Hemogram (blood counts)
- Blood sugar (GTT)
- Blood urea, creatinine
- Urine analysis
- ECG
- Chest x-ray

A typical order – the bill

- Hemogram (blood counts) 225/-
- Blood sugar (GTT) 60/-
- Blood urea, creatinine 130/-
- Urine analysis 60/-
- ECG 130/-
- Chest x-ray 170/-
- **TOTAL** 775/-



Cost of a test

- Little room to move
- Market forces



The other side of the coin



Costing a test

- I: Fixed cost
 - Employee
 - Maintenance
 - Rental space
 - Admin
 - Interest
 - Depreciation
 - Rates & taxes
- II: Variable cost
 - Consumables
 - Power/ utilities
 - Inventory costs
 - Professional charges
- III: Factor in:
 - Capital employed
 - ROI

**No different from
any business**

Ethics of diagnostic testing

(In)

**Appropriateness
of usage**

Inappropriate testing



“If you put tomfoolery into a computer, nothing comes out of it but tomfoolery. But this tomfoolery, having passed through a very expensive machine, is somehow enobled and no-one dares criticize it.”

- Too many
 - “Panel” approach
 - Master health check
- Too often
- Unproven indications
- “Incentivisation”
 - Industry driven
 - Patient driven

Inappropriate tests



■ Too many

- “Panel” approach
- Master health check

■ Too often

■ Unproven indications

■ “Incentivisation”

- Industry driven
- Patient driven

“If you put tomfoolery into a computer, nothing comes out of it but tomfoolery. But this tomfoolery, having passed through a very expensive machine, is somehow enobled and no-one dares criticize it.”

When analysed

- Hemogram (blood counts)
- Blood sugar (GTT)
- Blood urea, creatinine
- Urine analysis
- ECG
- Chest x-ray

90 - 95%

"normal"

THE "MASTER" HEALTH CHECK

Inappropriate testing at its "best"

Master health check-ups: rationale

- If a test(s) can detect these diseases in their pre-symptomatic stage, then prompt institution of measures might decrease the costs and morbidity associated

The Master Health Check



■ Too many

- “Panel” approach

■ Too often

- Annual - ???

■ Unproven indications

■ “Incentivisation”

- Industry driven
- Patient driven

Routine health check up

- Head-to-toe physical examination
- Body mass index:
Weight (kg)/ height² (metres) (N= 22 - 27)
- Blood pressure
- For women:
 - Breast exam
 - Pap smear
- Fasting blood sugar
- Cholesterol (total, HDL, LDL)



The Master Health Check



- Too many
 - “Panel” approach
- Too often
 - Annual - ???
- Unproven indications
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Master health check up - how often?

- Every 5 years from age 35
- Every 2 years after age 60



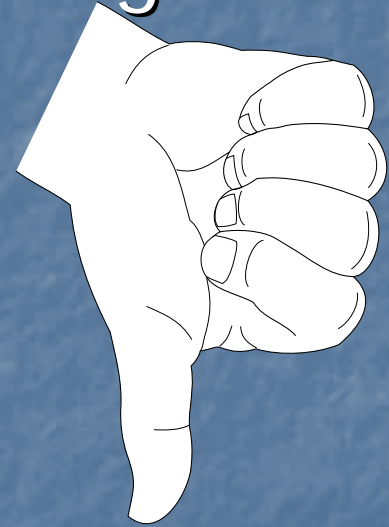
The Master Health Check



- Too many
 - “Panel” approach
- Too often
 - Annual - ???
- **Unproven indications**
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Not recommended

- ECG
- Chest x-ray (in those with no lung problems/ non-smokers)
- Treadmill ECG (stress test)
- Ultrasound
- Liver function tests
- Lung function tests

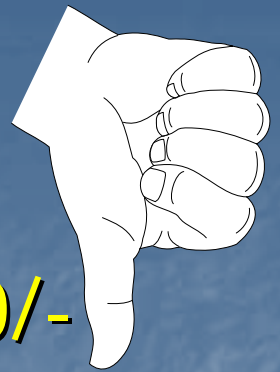


The Master Health Check



- Too many
 - “Panel” approach
- Too often
 - Annual - ???
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Unnecessary costs



- ECG – 130/-
- Chest x-ray – 170/-
- Treadmill ECG (stress test) – 750/-
- Ultrasound – 500/-
- Liver function tests – 300/-
- Lung function tests – 500/-
- Mispent funds – 2350/-



2350/-



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"master health check"

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[Health check](#)

The **Master Health Check** programme is recommended for people of all age groups so that illness if any, can be diagnosed and treated in time. ...

www.aimshospital.org/index/healthcheck/master.html - 11k - [Cached](#) - [Similar pages](#)

[Apollo Aashirwad](#)

The **Master Health Check** comprises a series of tests that are as comprehensive as they are ... Once you register, a **Master Health Check** will be performed. ...

services.apollolife.com/Aashirwad/offers.htm - 15k - [Cached](#) - [Similar pages](#)

[Apollolife : HealthShop](#)

The **Master Health Check** offered by the hospital is a comprehensive check up that screens each organ closely to detect even the smallest symptom that could ...

services.apollolife.com/healthshop/ProductDetails.asp?IPD=73 - 29k -

[Cached](#) - [Similar pages](#)

[K.G. Hospital - Master Health Check-up](#)

Through the **Master Health Check-up**, the following ailments can be identified at a preliminary stage: Infectious diseases; High/Low Blood pressure; Anaemia ...

www.kghospital.com/kgHMHealthCkup.html - 20k - [Cached](#) - [Similar pages](#)

[Health Check Up](#)

Master health Check—up Scheme – TNMSC is providing Master Health Checkup

Scheme to the General Public at Government General Hospital Chennai from 01.04.2001

...
tnmsc.tn.nic.in/hlthchkup.htm - 10k - [Cached](#) - [Similar pages](#)

[Apollo Master Health Check \(AMHC\) | Buy Apollo Master Health Check ...](#)

best buys Apollo **Master Health Check** (AMHC), online buying Apollo **Master Health**

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shopping.sify.com/shopping/category.php?pid=13176224 - 36k - [Cached](#) - [Similar pages](#)

[The Hindu Business Line : A master health check-up of financial system](#)

Investment World - Insight Money & Banking - Insight A **master health check-up** of financial system. D. Murali. THE SENSEX has become a standard distracting ...

www.thehindubusinessline.com/iw/2004/05/30/stories/2004053000231300.htm - 24k -

[Cached](#) - [Similar pages](#)

[Apollo Hospitals Group - Largest Healthcare Group in Asia](#)

Apollo **Master Health Check** - Recommended for men and women below 35 years.

Apollo Executive Health Check – Recommended for men and women above 35 years ...

www.apollohospitals.com/healthcheckup.asp - 51k - [Cached](#) - [Similar pages](#)

[KTVR Group Hospital - Master Health Check-Up](#)

This is where the **Master Health Check** up comes to help you, because of the vast number of relevant tests conducted; it is an excellent way to detect any ...

www.ktvr.com/hospital/masterhealth.html - 19k - [Cached](#) - [Similar pages](#)

Sponsored Links

[Health master](#)

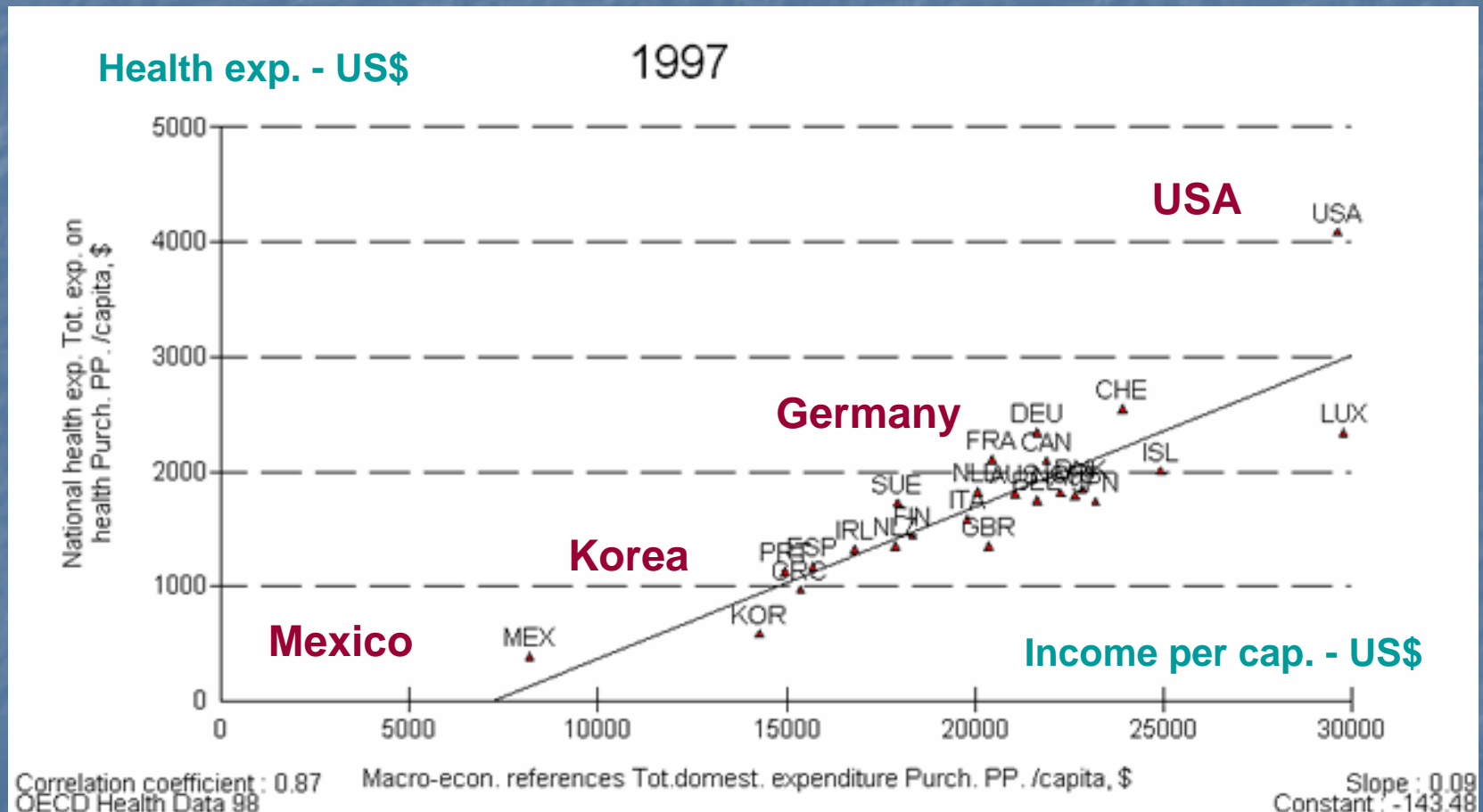
Degree from Walden, an Online Accredited university. Learn More!
www.Waldenu.edu

[Health Care](#)

Read about Health Care policy at the Center for American Progress
www.AmericanProgress.org

India
shining

Development raises cost



The richer you get - the more the bill!

Health costs - who pays?

Country	Health exp. as % of GDP	Per cap exp. (US\$)	Out of pocket
<i>India</i>	5.2%	23	<u>84.6%</u>
<i>UK</i>	5.6%	1303	3.1%
<i>USA</i>	13.7%	4187	16.6%

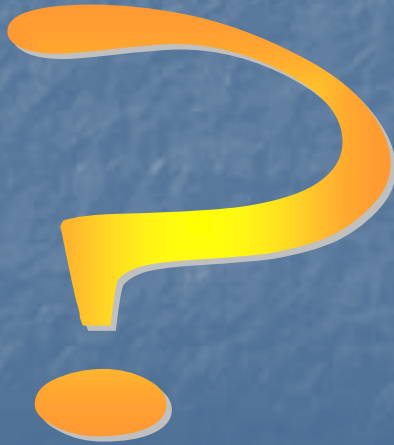
Uniquely Indian problem

Source : WHO 2000, figures in USD at the official exchange rate

Ethics of technology use



- Too many
 - “Panel” approach
- Too often
- Unproven indications
- “Incentivisation”
 - Industry driven
 - Patient driven



The prescription

- Education
 - Profession
 - Public
- Audit
 - Mandatory
 - Feed back to users
- Transparent tariffs
- “Pay for performance”

THANK YOU

Dr Arjun Rajagopalan