

**SKEPTIC
ZONE**



**THINKING CAPS
MUST BE WORN
IN THIS AREA**

The
Podcast
from
Australia
for
Science
and
Reason

www.skepticzone.tv

1
00:00:11,110 --> 00:00:20,579

I

2
00:00:26,589 --> 00:00:23,259

hello and welcome to the skeptic zone

3
00:00:29,499 --> 00:00:26,599

show number 52 for the 16th of oktober

4
00:00:32,350 --> 00:00:29,509

2009 Richard Saunders here with you

5
00:00:34,180 --> 00:00:32,360

today's episode of the skeptic zone is

6
00:00:37,420 --> 00:00:34,190

given over to an extensive interview

7
00:00:40,450 --> 00:00:37,430

with Professor Ian Harris by Iran so

8
00:00:44,110 --> 00:00:40,460

give this is a fascinating interview in

9
00:00:46,149 --> 00:00:44,120

Harris being an orthopedic surgeon Iran

10
00:00:48,750 --> 00:00:46,159

really gets to the nub of many important

11
00:00:51,549 --> 00:00:48,760

questions regarding our perception of

12
00:00:53,709 --> 00:00:51,559

modern medicine scientific medicine and

13
00:00:56,259 --> 00:00:53,719

I think you'll find Ian Harris's

14

00:00:58,720 --> 00:00:56,269

responses very interesting in fact I

15

00:01:02,169 --> 00:00:58,730

invite you after the show to click on

16

00:01:04,689 --> 00:01:02,179

the comments link at ww skeptics on TV

17

00:01:07,540 --> 00:01:04,699

and give us your thoughts about this

18

00:01:09,370 --> 00:01:07,550

interview before we start the interview

19

00:01:11,109 --> 00:01:09,380

and a quick announcement don't forget

20

00:01:12,669 --> 00:01:11,119

the Australian skeptics National

21

00:01:14,700 --> 00:01:12,679

Convention is going to be held at the

22

00:01:17,350 --> 00:01:14,710

end of november in brisbane australia

23

00:01:20,760 --> 00:01:17,360

please come along and see us or should

24

00:01:25,090 --> 00:01:20,770

be a great convention more details at ww

25

00:01:26,649 --> 00:01:25,100

skeptics come you and why you're at this

26

00:01:29,080 --> 00:01:26,659

skeptics website don't forget to

27

00:01:33,310 --> 00:01:29,090

subscribe to the skeptic the skeptic

28

00:01:36,850 --> 00:01:33,320

magazine from Australian skeptics ok sit

29

00:01:38,499 --> 00:01:36,860

back have a nice ginger beer yes have a

30

00:01:41,469 --> 00:01:38,509

nice cool drink of ginger beer and enjoy

31

00:01:44,690 --> 00:01:41,479

this interview with Ian Harris by Iran

32

00:01:44,700 --> 00:01:53,350

you

33

00:01:57,590 --> 00:01:56,270

ian harris is a professor of orthopedic

34

00:02:00,050 --> 00:01:57,600

surgery at the University of New South

35

00:02:02,410 --> 00:02:00,060

Wales and the director of orthopaedic

36

00:02:05,330 --> 00:02:02,420

surgery at Liverpool Hospital in Sydney

37

00:02:06,590 --> 00:02:05,340

en has also studied epidemiology and is

38

00:02:08,300 --> 00:02:06,600

particularly interested in the

39

00:02:11,300 --> 00:02:08,310

assessment of the efficacy and safety of

40

00:02:12,830 --> 00:02:11,310

medical interventions I met Ian at his

41

00:02:14,150 --> 00:02:12,840

office in Liverpool Hospital to talk

42

00:02:16,310 --> 00:02:14,160

about how surgical techniques are

43

00:02:18,110 --> 00:02:16,320

assessed but ended up having a lot of

44

00:02:21,080 --> 00:02:18,120

what I thought were facts about medicine

45

00:02:23,240 --> 00:02:21,090

in general challenge so it's so in fact

46

00:02:25,610 --> 00:02:23,250

that if you really important issues had

47

00:02:27,050 --> 00:02:25,620

to be covered after the interview listen

48

00:02:29,420 --> 00:02:27,060

at the end of the interview for some

49

00:02:34,520 --> 00:02:29,430

more information but now here is

50

00:02:35,750 --> 00:02:34,530

Professor Ian Harris Professor Ian

51
00:02:39,170 --> 00:02:35,760
Harris thank you very much for joining

52
00:02:40,610 --> 00:02:39,180
us on skeptics on what further I would

53
00:02:42,260 --> 00:02:40,620
like to speak today about surgical

54
00:02:45,440 --> 00:02:42,270
techniques and how they might be

55
00:02:48,320 --> 00:02:45,450
verified we skeptical community will do

56
00:02:51,710 --> 00:02:48,330
by and large people will know about how

57
00:02:53,510 --> 00:02:51,720
double-blind tests are done on drugs but

58
00:02:55,520 --> 00:02:53,520
it doesn't seem like surgical techniques

59
00:03:00,380 --> 00:02:55,530
necessarily lend themselves to this kind

60
00:03:02,930 --> 00:03:00,390
of study so very strict and that is a

61
00:03:08,930 --> 00:03:02,940
fact that can be used to the surgeons

62
00:03:11,949 --> 00:03:08,940
advantage by avoiding such trials the

63
00:03:14,690 --> 00:03:11,959

bottom line is that randomized trials

64

00:03:17,990 --> 00:03:14,700

can be done in surgery and are being

65

00:03:20,090 --> 00:03:18,000

done in surgery however there are

66

00:03:22,280 --> 00:03:20,100

logistical problems with randomized

67

00:03:25,280 --> 00:03:22,290

trials particularly when it comes to

68

00:03:27,320 --> 00:03:25,290

blinding although they've been some very

69

00:03:30,949 --> 00:03:27,330

interesting examples where that has been

70

00:03:34,400 --> 00:03:30,959

overcome with with interesting results

71

00:03:38,360 --> 00:03:34,410

and I recently published an article on

72

00:03:41,509 --> 00:03:38,370

the need to be doing sham surgery for

73

00:03:45,110 --> 00:03:41,519

such trials in the australia new zealand

74

00:03:46,910 --> 00:03:45,120

journal of surgery sham surgical trials

75

00:03:48,800 --> 00:03:46,920

have been done in the past whenever

76
00:03:51,310 --> 00:03:48,810
they've been done they've always shown

77
00:03:53,650 --> 00:03:51,320
that the surgery has been not effective

78
00:03:57,170 --> 00:03:53,660
and i think that there's a role for

79
00:03:59,270 --> 00:03:57,180
doing them whenever it's raised in the

80
00:04:01,460 --> 00:03:59,280
surgical community and you say we'll

81
00:04:02,910 --> 00:04:01,470
look you know we're unsure whether this

82
00:04:05,970 --> 00:04:02,920
technique is really

83
00:04:08,940 --> 00:04:05,980
beneficial we need to do a proper study

84
00:04:12,000 --> 00:04:08,950
where the patients are blinded and they

85
00:04:13,890 --> 00:04:12,010
undergo some kind of sham surgery the

86
00:04:15,960 --> 00:04:13,900
answer not only the knee-jerk response

87
00:04:18,420 --> 00:04:15,970
is that oh you can't do that it's

88
00:04:23,430 --> 00:04:18,430

unethical but there's a bit of confusion

89

00:04:27,300 --> 00:04:23,440

I think with the ethics there is the

90

00:04:31,860 --> 00:04:27,310

ethics of medical practice of treating

91

00:04:33,810 --> 00:04:31,870

patients and and biologic surgery one of

92

00:04:38,700 --> 00:04:33,820

the codes that we live by is to do no

93

00:04:42,030 --> 00:04:38,710

harm so when in doubt you know we try

94

00:04:45,930 --> 00:04:42,040

and avoid harming the patient in any way

95

00:04:50,730 --> 00:04:45,940

and so on the surface of it to do a sham

96

00:04:52,800 --> 00:04:50,740

operation is in some way exposing

97

00:04:55,620 --> 00:04:52,810

patients to risk all those sham

98

00:04:59,010 --> 00:04:55,630

operations can be done in such a way

99

00:05:01,200 --> 00:04:59,020

there's quite a low risk but you're

100

00:05:04,830 --> 00:05:01,210

exposing the patient to some degree of

101
00:05:09,420 --> 00:05:04,840
risk and yet not offering them any real

102
00:05:11,730 --> 00:05:09,430
tangible benefit and so it appears that

103
00:05:15,870 --> 00:05:11,740
a sham surgical trial goes against the

104
00:05:19,230 --> 00:05:15,880
ethics of medical practice however it

105
00:05:25,320 --> 00:05:19,240
does satisfy the ethics of scientific

106
00:05:30,029 --> 00:05:25,330
investigation which is really to perform

107
00:05:33,900 --> 00:05:30,039
the best possible unbiased study that we

108
00:05:36,390 --> 00:05:33,910
can in order to investigate something

109
00:05:39,200 --> 00:05:36,400
properly and it's well known and in the

110
00:05:41,670 --> 00:05:39,210
past it's always been the case that

111
00:05:43,710 --> 00:05:41,680
scientific investigations in medical

112
00:05:46,890 --> 00:05:43,720
devices and even drugs and things like

113
00:05:49,290 --> 00:05:46,900

that may involve some small degree of

114

00:05:52,320 --> 00:05:49,300

risk to patients without any tangible

115

00:05:56,310 --> 00:05:52,330

benefit and the ethics gets broader as

116

00:05:58,850 --> 00:05:56,320

well because epidemiologists will argue

117

00:06:02,250 --> 00:05:58,860

with surgeons saying that it is

118

00:06:04,830 --> 00:06:02,260

unethical to be operating on patients

119

00:06:06,870 --> 00:06:04,840

without randomized control trial

120

00:06:08,779 --> 00:06:06,880

evidence that what we do is beneficial

121

00:06:11,310 --> 00:06:08,789

so it's really turning it on its head

122

00:06:12,890 --> 00:06:11,320

the surgeons will say it's unethical to

123

00:06:14,550 --> 00:06:12,900

do a randomized trial and

124

00:06:16,080 --> 00:06:14,560

epidemiologists will say it's unethical

125

00:06:21,990 --> 00:06:16,090

to be operating without

126

00:06:24,910 --> 00:06:22,000

and I think that history supports the

127

00:06:26,440 --> 00:06:24,920

epidemiologists unfortunately and you

128

00:06:31,000 --> 00:06:26,450

have to believe me because I'm a surgeon

129

00:06:35,320 --> 00:06:31,010

saying that and because in the past so

130

00:06:38,410 --> 00:06:35,330

many operations have been shown to not

131

00:06:42,760 --> 00:06:38,420

be as helpful as we once thought they

132

00:06:45,160 --> 00:06:42,770

were through you know good studies that

133

00:06:47,710 --> 00:06:45,170

were done I mean Ava if i'm not mistaken

134

00:06:50,170 --> 00:06:47,720

in any case when a patient enters a

135

00:06:52,330 --> 00:06:50,180

study there this sign and informed

136

00:06:54,340 --> 00:06:52,340

consent in which they know that they

137

00:06:56,800 --> 00:06:54,350

might be subjected to sham surgery sure

138

00:06:57,760 --> 00:06:56,810

yeah so it's the patient is involved in

139

00:07:00,490 --> 00:06:57,770

the decision it's not like you

140

00:07:02,110 --> 00:07:00,500

inflicting harm on a patient who doesn't

141

00:07:06,220 --> 00:07:02,120

know what's happening we're definitely

142

00:07:10,690 --> 00:07:06,230

um and all the studies have properly

143

00:07:13,630 --> 00:07:10,700

informed consent that is vetted by an

144

00:07:16,060 --> 00:07:13,640

ethics committee the trouble is there's

145

00:07:18,490 --> 00:07:16,070

this knee-jerk response and and I sit on

146

00:07:20,380 --> 00:07:18,500

ethics committee here at the hospital if

147

00:07:21,880 --> 00:07:20,390

you say to people on ethics committee

148

00:07:23,740 --> 00:07:21,890

all we want to do a study involving sham

149

00:07:25,270 --> 00:07:23,750

surgery though we can't do that it's

150

00:07:27,160 --> 00:07:25,280

just the automatic responses well you

151

00:07:28,840 --> 00:07:27,170

can't do that that's just you kind of do

152

00:07:31,480 --> 00:07:28,850

it and but when you actually sit at

153

00:07:33,850 --> 00:07:31,490

explain it to people they can see the

154

00:07:37,650 --> 00:07:33,860

benefit of it the problem with the

155

00:07:42,760 --> 00:07:37,660

patient sign the consent is there's this

156

00:07:44,200 --> 00:07:42,770

presumption of the of therapy even

157

00:07:45,730 --> 00:07:44,210

though you can sit down and explain to

158

00:07:47,680 --> 00:07:45,740

patients what's going on they're

159

00:07:50,440 --> 00:07:47,690

assuming that because the doctor is

160

00:07:55,630 --> 00:07:50,450

treating them that they're providing it

161

00:07:57,730 --> 00:07:55,640

with some kind of benefit but but you're

162

00:07:59,170 --> 00:07:57,740

right we're in these sham surgery trials

163

00:08:02,290 --> 00:07:59,180

that is explained to the patients that

164

00:08:04,300 --> 00:08:02,300

you may be randomized to an arm of the

165

00:08:08,560 --> 00:08:04,310

study that will afford you know

166

00:08:13,930 --> 00:08:08,570

possibility of benefit and the benefit

167

00:08:15,760 --> 00:08:13,940

yeah yes yeah because we do have the

168

00:08:17,350 --> 00:08:15,770

placebo effect yeah that size it was

169

00:08:18,880 --> 00:08:17,360

definitely it'll yeah and that's the

170

00:08:20,980 --> 00:08:18,890

thing about surgery surgery has such a

171

00:08:23,080 --> 00:08:20,990

strong pasiba effect so there's been

172

00:08:25,250 --> 00:08:23,090

studies which have some fascinating

173

00:08:29,000 --> 00:08:25,260

studies in medicine

174

00:08:31,490 --> 00:08:29,010

looking at the strength of the placebo

175

00:08:36,650 --> 00:08:31,500

effect so for instance if you're doing a

176
00:08:41,120 --> 00:08:36,660
trial and you deliberately make it known

177
00:08:43,070 --> 00:08:41,130
to the subjects that the drug they're

178
00:08:45,080 --> 00:08:43,080
receiving is or make them believe that

179
00:08:47,230 --> 00:08:45,090
the drug that they're receiving is very

180
00:08:50,780 --> 00:08:47,240
expensive you will get a much better

181
00:08:52,400 --> 00:08:50,790
placebo effect then if they think

182
00:08:54,230 --> 00:08:52,410
they're getting a cheap drug or an old

183
00:08:56,810 --> 00:08:54,240
drug you know I believe there's also a

184
00:08:58,790 --> 00:08:56,820
color effect if I member correctly I

185
00:09:01,010 --> 00:08:58,800
think it's the same even the same Smith

186
00:09:05,090 --> 00:09:01,020
and be the same study that showed that

187
00:09:08,180 --> 00:09:05,100
the color of the taking hello tablets

188
00:09:10,310 --> 00:09:08,190

actually has an effect as well yeah yeah

189

00:09:13,250 --> 00:09:10,320

and it's the end of the way it's sold to

190

00:09:16,190 --> 00:09:13,260

the patient as well so surgery has all

191

00:09:20,530 --> 00:09:16,200

the hallmarks of having a massive

192

00:09:25,220 --> 00:09:20,540

bow effect it's got a huge investment in

193

00:09:28,310 --> 00:09:25,230

trust cost time risk everything from the

194

00:09:29,840 --> 00:09:28,320

patient to go ahead with this they have

195

00:09:31,730 --> 00:09:29,850

to go through a lot of procedures before

196

00:09:34,820 --> 00:09:31,740

they even get to the hospital sign a lot

197

00:09:38,090 --> 00:09:34,830

of forms consent forms this is a big

198

00:09:40,610 --> 00:09:38,100

operation you're having done and then

199

00:09:41,720 --> 00:09:40,620

they go to this institution this

200

00:09:43,550 --> 00:09:41,730

hospital where they have to get

201
00:09:46,540 --> 00:09:43,560
undressed and change they get checked

202
00:09:48,860 --> 00:09:46,550
and double-checked they get needles

203
00:09:52,520 --> 00:09:48,870
injections they have a huge cut they

204
00:09:55,520 --> 00:09:52,530
have drips afterwards and it's a hell of

205
00:09:57,530 --> 00:09:55,530
a big procedure to go through and so I

206
00:09:59,390 --> 00:09:57,540
think their mind must be telling them

207
00:10:02,210 --> 00:09:59,400
they better get some benefit out of this

208
00:10:05,320 --> 00:10:02,220
you know there must be some kind of yeah

209
00:10:07,820 --> 00:10:05,330
why else would they do it you know and

210
00:10:11,930 --> 00:10:07,830
so you've really got to overcome that

211
00:10:14,980 --> 00:10:11,940
but you know I think we we need to do we

212
00:10:19,400 --> 00:10:14,990
need to do more studies in in surgery

213
00:10:23,420 --> 00:10:19,410

with a sham well I once they won such a

214

00:10:25,240 --> 00:10:23,430

sham surgery based study that I seem to

215

00:10:28,370 --> 00:10:25,250

recall it has to do with them

216

00:10:30,500 --> 00:10:28,380

arthroscopic surgery for the knees that

217

00:10:31,790 --> 00:10:30,510

was a great study this was a that was

218

00:10:33,350 --> 00:10:31,800

reported in the

219

00:10:37,160 --> 00:10:33,360

New England Journal of Medicine a few

220

00:10:40,600 --> 00:10:37,170

years ago and what they did is they took

221

00:10:44,930 --> 00:10:40,610

a whole bunch of patients who had

222

00:10:46,130 --> 00:10:44,940

mechanical problems with their knees and

223

00:10:48,380 --> 00:10:46,140

I think these were older patients I

224

00:10:53,569 --> 00:10:48,390

think it was a Veterans Affairs study in

225

00:10:56,540 --> 00:10:53,579

the US and they had symptoms which would

226

00:11:01,759 --> 00:10:56,550

often result in having an arthroscopy

227

00:11:04,360 --> 00:11:01,769

done and and I think they may have had a

228

00:11:06,710 --> 00:11:04,370

background of osteoarthritis in the knee

229

00:11:10,430 --> 00:11:06,720

but with mechanical symptoms and the

230

00:11:12,889 --> 00:11:10,440

theory is that you operate on it you

231

00:11:15,350 --> 00:11:12,899

find irregularities in the knee or rough

232

00:11:18,170 --> 00:11:15,360

patches or torn cartilages and you take

233

00:11:21,920 --> 00:11:18,180

them out and that smooth things over and

234

00:11:24,319 --> 00:11:21,930

gets rid of their symptoms and so what

235

00:11:28,040 --> 00:11:24,329

they did is a study where the patients

236

00:11:29,509 --> 00:11:28,050

in the sham group actually got incisions

237

00:11:32,930 --> 00:11:29,519

in their knees and arthroscopy is a

238

00:11:34,519 --> 00:11:32,940

fairly it doesn't involve any stitches

239

00:11:37,130 --> 00:11:34,529

in fact it's just two small holes in the

240

00:11:40,130 --> 00:11:37,140

knee camera gets put in and you do it

241

00:11:42,230 --> 00:11:40,140

all remote so it's not a very invasive

242

00:11:43,460 --> 00:11:42,240

procedure so it's easy to do a sham on

243

00:11:45,650 --> 00:11:43,470

that you just have to make two little

244

00:11:48,410 --> 00:11:45,660

cuts without any stitches the infection

245

00:11:51,380 --> 00:11:48,420

rates extremely low for such a procedure

246

00:11:54,850 --> 00:11:51,390

it's not a really big procedure and I

247

00:11:56,840 --> 00:11:54,860

think that they offered some benefit

248

00:11:58,310 --> 00:11:56,850

theoretical benefit to the sham group

249

00:11:59,269 --> 00:11:58,320

because think they washed out the name

250

00:12:02,470 --> 00:11:59,279

but they didn't actually do an

251
00:12:04,280 --> 00:12:02,480
arthroscopic procedure on them and

252
00:12:05,840 --> 00:12:04,290
apparently there's a documentary on

253
00:12:08,329 --> 00:12:05,850
another discovery channel which I would

254
00:12:12,260 --> 00:12:08,339
love to see but I haven't seen it but it

255
00:12:14,689 --> 00:12:12,270
shows patients who have had they have

256
00:12:17,060 --> 00:12:14,699
been in a study and they're now playing

257
00:12:19,160 --> 00:12:17,070
soccer with their grandchildren and

258
00:12:21,380 --> 00:12:19,170
saying what a fantastic procedure it's

259
00:12:25,340 --> 00:12:21,390
been another way they were in the shower

260
00:12:26,900 --> 00:12:25,350
affair so but that study showed no

261
00:12:31,030 --> 00:12:26,910
difference in the outcome between the

262
00:12:39,350 --> 00:12:35,780
that study opens up a whole a lot of

263
00:12:43,319 --> 00:12:39,360

questions because that study I would say

264

00:12:47,069 --> 00:12:43,329

has not changed practice one bit

265

00:12:49,189 --> 00:12:47,079

and that is this just in Australia or

266

00:12:53,489 --> 00:12:49,199

what do you see that's worldwide

267

00:12:56,429 --> 00:12:53,499

worldwide here particularly where

268

00:12:58,350 --> 00:12:56,439

there's private medicine where there's

269

00:13:00,689 --> 00:12:58,360

an incentive to operate and there's an

270

00:13:04,259 --> 00:13:00,699

expectation from the patients to operate

271

00:13:09,419 --> 00:13:04,269

and it's a customer service environment

272

00:13:11,699 --> 00:13:09,429

so in the private sector in Australia a

273

00:13:13,650 --> 00:13:11,709

patient with some clicking and

274

00:13:15,809 --> 00:13:13,660

mechanical symptoms perhaps locking in

275

00:13:18,059 --> 00:13:15,819

their knee who presents to an orthopedic

276

00:13:20,999 --> 00:13:18,069

surgeon will expect to have an

277

00:13:22,710 --> 00:13:21,009

arthrosomy by and large they'll be

278

00:13:26,369 --> 00:13:22,720

referred there from their general

279

00:13:28,169 --> 00:13:26,379

practitioner for an arthrosomy the

280

00:13:30,900 --> 00:13:28,179

surgeon will not have much else to offer

281

00:13:33,509 --> 00:13:30,910

them except an arthrosomy because there

282

00:13:35,160 --> 00:13:33,519

aren't that many alternatives they

283

00:13:37,410 --> 00:13:35,170

probably would have had a course perhaps

284

00:13:39,840 --> 00:13:37,420

of physiotherapy or tried some

285

00:13:41,999 --> 00:13:39,850

anti-inflammatory tablets and so that's

286

00:13:45,499 --> 00:13:42,009

really it's really like go away I can't

287

00:13:47,789 --> 00:13:45,509

help you or we'll do an arthrosomy and

288

00:13:50,129 --> 00:13:47,799

I'm trying to take the side of the

289

00:13:51,900 --> 00:13:50,139

orthopedic surgeons here but go away I

290

00:13:54,239 --> 00:13:51,910

can't help you is not very good for your

291

00:13:57,059 --> 00:13:54,249

practice and the patient will go to the

292

00:14:00,900 --> 00:13:57,069

next orthopedic surgeon down the street

293

00:14:03,359 --> 00:14:00,910

and get there ought to be done so by and

294

00:14:04,919 --> 00:14:03,369

large they just get done well as long as

295

00:14:07,559 --> 00:14:04,929

nobody offers them homeopathy that's

296

00:14:09,619 --> 00:14:07,569

fine in this respect that we should

297

00:14:12,840 --> 00:14:09,629

probably ask you so so are you in a

298

00:14:14,639 --> 00:14:12,850

clinical surgeon as well also do do you

299

00:14:17,129 --> 00:14:14,649

operate all right as well as but you're

300

00:14:19,650 --> 00:14:17,139

also says clinical academic on your head

301
00:14:21,569 --> 00:14:19,660
so does that mean you conduct studies

302
00:14:24,780 --> 00:14:21,579
yeah this is to that so what kind of

303
00:14:29,759 --> 00:14:24,790
proportions of your day are roughly 5050

304
00:14:31,949 --> 00:14:29,769
so I started out as a medical training

305
00:14:34,650 --> 00:14:31,959
here in university of new south wales

306
00:14:37,109 --> 00:14:34,660
and then did orthopaedic training

307
00:14:38,819 --> 00:14:37,119
locally and then started practices

308
00:14:41,039 --> 00:14:38,829
norfolk surgeon in my area of interest

309
00:14:43,530 --> 00:14:41,049
is in orthopaedic trauma so it's mainly

310
00:14:46,579 --> 00:14:43,540
factors broken bones cutting a car

311
00:14:50,549 --> 00:14:46,589
accidents motorbikes things like that

312
00:14:53,100 --> 00:14:50,559
and I was happy doing that but unhappy

313
00:14:56,879 --> 00:14:53,110

with the science behind what we did

314

00:15:00,600 --> 00:14:56,889

particularly in surgery they also found

315

00:15:02,850 --> 00:15:00,610

that I had a poor understanding of the

316

00:15:04,379 --> 00:15:02,860

science behind my own understanding of

317

00:15:06,239 --> 00:15:04,389

the scientific method wasn't very good

318

00:15:09,359 --> 00:15:06,249

and it isn't taught very well in

319

00:15:11,189 --> 00:15:09,369

medicine so I tried to get an

320

00:15:13,169 --> 00:15:11,199

understanding from from mentors and

321

00:15:15,960 --> 00:15:13,179

other people who seem to be able to

322

00:15:17,579 --> 00:15:15,970

critically appraise the literature in a

323

00:15:21,720 --> 00:15:17,589

scientific manner so I tried to learn

324

00:15:23,939 --> 00:15:21,730

that so I eventually did some courses

325

00:15:26,009 --> 00:15:23,949

then this led me to to study clinical

326

00:15:28,350 --> 00:15:26,019

epidemiology which is basically you know

327

00:15:33,059 --> 00:15:28,360

evidence-based medicine the science

328

00:15:36,350 --> 00:15:33,069

behind the the the studies that we do

329

00:15:38,789 --> 00:15:36,360

and so I did a master's degree in

330

00:15:41,159 --> 00:15:38,799

clinical epidemiology at University of

331

00:15:42,869 --> 00:15:41,169

Sydney which is a fairly it's a very

332

00:15:45,689 --> 00:15:42,879

good course run by the school of public

333

00:15:49,199 --> 00:15:45,699

health fair and the people there are all

334

00:15:52,079 --> 00:15:49,209

good skeptics very very soundly

335

00:15:56,340 --> 00:15:52,089

scientifically based and then I did a

336

00:15:59,159 --> 00:15:56,350

PhD in in surgical outcomes at

337

00:16:01,319 --> 00:15:59,169

University of Sydney as well and then so

338

00:16:04,519 --> 00:16:01,329

that you do other research projects and

339

00:16:08,400 --> 00:16:04,529

now I have students working for me and

340

00:16:11,460 --> 00:16:08,410

and and so I split my time between the

341

00:16:12,840 --> 00:16:11,470

academic activities I'm employed by the

342

00:16:14,789 --> 00:16:12,850

university of new south wales and the

343

00:16:16,499 --> 00:16:14,799

clinical activities which is looking

344

00:16:19,590 --> 00:16:16,509

after patients that come into to this

345

00:16:21,269 --> 00:16:19,600

hospital and the two crossover we do

346

00:16:24,139 --> 00:16:21,279

studies on the patients that come in

347

00:16:27,059 --> 00:16:24,149

here have you found that having studied

348

00:16:29,639 --> 00:16:27,069

epidemiology and being much more aware

349

00:16:31,229 --> 00:16:29,649

of the scientific mahou the scientific

350

00:16:32,909 --> 00:16:31,239

method can inform the way you treat

351

00:16:35,909 --> 00:16:32,919

patients that changed your practice

352

00:16:40,139 --> 00:16:35,919

definitely yeah i was already always a

353

00:16:44,039 --> 00:16:40,149

little bit wary but i would be probably

354

00:16:46,489 --> 00:16:44,049

the most conservative one of the most

355

00:16:49,999 --> 00:16:46,499

conservative orthopaedic surgeons around

356

00:16:51,989 --> 00:16:50,009

so when I go to meetings I got a lot of

357

00:16:55,829 --> 00:16:51,999

clinical meetings and meetings with

358

00:16:59,039 --> 00:16:55,839

other surgeons things I would tend to

359

00:17:02,249 --> 00:16:59,049

take up one end of the spectrum which is

360

00:17:04,889 --> 00:17:02,259

the non-operative end whereas some other

361

00:17:06,419 --> 00:17:04,899

surgeons are there is a lot that it can

362

00:17:07,710 --> 00:17:06,429

be quite aggressive and operate on a lot

363

00:17:10,230 --> 00:17:07,720

of patience

364

00:17:13,020 --> 00:17:10,240

where I would not operate on them and

365

00:17:17,850 --> 00:17:13,030

that's because my interpretation of the

366

00:17:20,039 --> 00:17:17,860

evidence is such that I from my

367

00:17:22,230 --> 00:17:20,049

experience and from my understanding of

368

00:17:25,590 --> 00:17:22,240

the literature if there is not good

369

00:17:28,919 --> 00:17:25,600

evidence for a procedure then the

370

00:17:33,029 --> 00:17:28,929

procedure probably doesn't work whereas

371

00:17:35,940 --> 00:17:33,039

the ver default position is well we know

372

00:17:38,430 --> 00:17:35,950

from experience in my hands that this

373

00:17:41,370 --> 00:17:38,440

procedure works so until evidence comes

374

00:17:43,320 --> 00:17:41,380

out that shows me otherwise I'm going to

375

00:17:46,470 --> 00:17:43,330

continue doing it and this is what this

376

00:17:50,130 --> 00:17:46,480

is medicine for the last you know 100

377

00:17:52,970 --> 00:17:50,140

years or 200 years is that people you

378

00:17:55,350 --> 00:17:52,980

know right back to the 1800s when they

379

00:17:58,440 --> 00:17:55,360

were doing bloodletting in Venice

380

00:17:59,850 --> 00:17:58,450

section on everybody and they finally

381

00:18:02,520 --> 00:17:59,860

came out with the evidence that it

382

00:18:05,340 --> 00:18:02,530

didn't actually offer any benefit people

383

00:18:07,560 --> 00:18:05,350

still did it because that's what they

384

00:18:10,440 --> 00:18:07,570

did and they saw patients get better

385

00:18:11,909 --> 00:18:10,450

after they did it not realizing of

386

00:18:15,720 --> 00:18:11,919

course the patients tend to get better

387

00:18:18,600 --> 00:18:15,730

anyway other cases where surgery might

388

00:18:20,190 --> 00:18:18,610

be obvious where you think studies are

389

00:18:21,930 --> 00:18:20,200

not required we're gonna give you an

390

00:18:23,850 --> 00:18:21,940

example that I might think of yeah a

391

00:18:27,090 --> 00:18:23,860

broken bone that hasn't set properly

392

00:18:28,919 --> 00:18:27,100

yeah oh well this is my field and I

393

00:18:33,899 --> 00:18:28,929

think subconsciously this is what's

394

00:18:36,360 --> 00:18:33,909

drawing me to to my particular area of

395

00:18:39,690 --> 00:18:36,370

super specialty within medicine which is

396

00:18:42,390 --> 00:18:39,700

basically fixing broken bones because

397

00:18:47,310 --> 00:18:42,400

it's such a clear-cut sort of black and

398

00:18:50,700 --> 00:18:47,320

white area however within this field

399

00:18:53,669 --> 00:18:50,710

this the evidence is still questionable

400

00:18:54,960 --> 00:18:53,679

for a lot of the things we do and I

401
00:18:56,909 --> 00:18:54,970
spend a lot of time arguing with

402
00:19:01,590 --> 00:18:56,919
patients who come to see me with it with

403
00:19:02,730 --> 00:19:01,600
a broken somewhere and the x-rays never

404
00:19:04,230 --> 00:19:02,740
looked perfect I mean if you treat it

405
00:19:06,090 --> 00:19:04,240
not operatively you still see the

406
00:19:10,409 --> 00:19:06,100
fracture and it's you know just roughly

407
00:19:11,580 --> 00:19:10,419
lined up which is fine and I better have

408
00:19:13,770 --> 00:19:11,590
to argue with the patients because

409
00:19:16,560 --> 00:19:13,780
there's this expectation the patients

410
00:19:18,840 --> 00:19:16,570
say to me but doctor how is it going to

411
00:19:20,880 --> 00:19:18,850
heal if you don't put it together you

412
00:19:22,800 --> 00:19:20,890
know if less you operate on it too

413
00:19:25,620 --> 00:19:22,810

put the bones together it will never

414

00:19:27,510 --> 00:19:25,630

heal this is the this is what we have to

415

00:19:31,050 --> 00:19:27,520

deal with this is the understanding of a

416

00:19:32,400 --> 00:19:31,060

lot of people and I have to go back to

417

00:19:33,780 --> 00:19:32,410

them to explain that bones have been

418

00:19:36,180 --> 00:19:33,790

healing for hundreds of millions of

419

00:19:40,140 --> 00:19:36,190

years without operations and quite

420

00:19:42,690 --> 00:19:40,150

successfully and evolution has has

421

00:19:44,520 --> 00:19:42,700

worked out over several billion years a

422

00:19:47,130 --> 00:19:44,530

way of making bones joined together

423

00:19:49,860 --> 00:19:47,140

which is quite unique and extremely

424

00:19:52,770 --> 00:19:49,870

involved and involving hundreds and

425

00:19:57,180 --> 00:19:52,780

thousands of mediator factors and

426

00:20:00,810 --> 00:19:57,190

proteins and local chemicals to make

427

00:20:03,900 --> 00:20:00,820

this process work when we operate on it

428

00:20:06,420 --> 00:20:03,910

we completely just remove all of those

429

00:20:09,630 --> 00:20:06,430

factors that are in there helping it

430

00:20:11,250 --> 00:20:09,640

heal and by large when we operate on

431

00:20:13,530 --> 00:20:11,260

things probably the chance of bands

432

00:20:15,390 --> 00:20:13,540

healing is lower one of the reasons we

433

00:20:18,330 --> 00:20:15,400

operate on bones is not to get them to

434

00:20:21,330 --> 00:20:18,340

heal when we operate its Norway to hold

435

00:20:24,690 --> 00:20:21,340

them in a position such that when they

436

00:20:26,940 --> 00:20:24,700

heal the function will be better so it's

437

00:20:29,010 --> 00:20:26,950

to deal with the functionality post post

438

00:20:31,230 --> 00:20:29,020

injury rather than with the healing

439

00:20:33,540 --> 00:20:31,240

process yeah that's a large part of it

440

00:20:36,630 --> 00:20:33,550

however there are examples where bones

441

00:20:38,970 --> 00:20:36,640

are very badly broken and they you can't

442

00:20:40,650 --> 00:20:38,980

control them you know classic example is

443

00:20:44,010 --> 00:20:40,660

probably the femur fracture so the thigh

444

00:20:46,230 --> 00:20:44,020

bone fracture is a good one forever

445

00:20:47,730 --> 00:20:46,240

they've been treated in traction and I

446

00:20:50,060 --> 00:20:47,740

remember at this hospital when I came

447

00:20:52,440 --> 00:20:50,070

here as a junior many many years ago

448

00:20:54,750 --> 00:20:52,450

there was a doctor still treating the

449

00:20:56,730 --> 00:20:54,760

retraction and in World War two and in

450

00:20:59,100 --> 00:20:56,740

the 50s and 60s there were whole wards

451
00:21:04,140 --> 00:20:59,110
full of young motorbike riders who were

452
00:21:06,660 --> 00:21:04,150
in traction for four months now they

453
00:21:08,580 --> 00:21:06,670
were healed and that hill satisfactorily

454
00:21:10,230 --> 00:21:08,590
they probably healed a lot of them

455
00:21:12,090 --> 00:21:10,240
healed with a bit of deformity so the

456
00:21:13,770 --> 00:21:12,100
hill a bit short and and slightly

457
00:21:16,110 --> 00:21:13,780
crooked and so people had a bit of a

458
00:21:17,910 --> 00:21:16,120
limp afterwards so I think our modern

459
00:21:21,000 --> 00:21:17,920
methods these days where we operate on

460
00:21:22,860 --> 00:21:21,010
them probably gets better function but

461
00:21:24,870 --> 00:21:22,870
the other thing is the imperative is

462
00:21:27,780 --> 00:21:24,880
that to leave every patient with a

463
00:21:29,070 --> 00:21:27,790

broken femur in hospital in traction for

464

00:21:32,230 --> 00:21:29,080

three months it's just not possible

465

00:21:35,500 --> 00:21:32,240

these days I mean that the cost

466

00:21:38,380 --> 00:21:35,510

to the hospitals the cost of the patient

467

00:21:41,230 --> 00:21:38,390

being out of work not being at home to

468

00:21:42,640 --> 00:21:41,240

look after their kids and everything to

469

00:21:46,900 --> 00:21:42,650

put some in a hospital for three months

470

00:21:48,970 --> 00:21:46,910

is unthinkable these days whereas it was

471

00:21:51,330 --> 00:21:48,980

just a matter of course in those days so

472

00:21:53,470 --> 00:21:51,340

we operate on every single thigh bone

473

00:21:55,390 --> 00:21:53,480

every single femur fracture that comes

474

00:21:58,990 --> 00:21:55,400

in and we fix them and they go home

475

00:22:01,450 --> 00:21:59,000

normally within a few days but we've

476
00:22:02,410 --> 00:22:01,460
increased the infection rate because of

477
00:22:05,770 --> 00:22:02,420
that because they never used to get

478
00:22:07,540 --> 00:22:05,780
infected so imagine with that yeah they

479
00:22:10,900 --> 00:22:07,550
always used to heal interaction here and

480
00:22:14,560 --> 00:22:10,910
they never got infected but they would

481
00:22:16,510 --> 00:22:14,570
have probably more residual deformity

482
00:22:18,640 --> 00:22:16,520
with that because it's difficult to

483
00:22:20,080 --> 00:22:18,650
control the alignment in traction it's

484
00:22:24,520 --> 00:22:20,090
easy to control the alignment when you

485
00:22:28,600 --> 00:22:24,530
put a big metal rod in there um so you

486
00:22:33,430 --> 00:22:28,610
know but but still the belief in surgery

487
00:22:35,770 --> 00:22:33,440
is so great amongst the people being

488
00:22:37,810 --> 00:22:35,780

operated on and the surgeons themselves

489

00:22:39,820 --> 00:22:37,820

and often have a bit of fun with the

490

00:22:44,740 --> 00:22:39,830

junior doctors when they come through to

491

00:22:46,930 --> 00:22:44,750

learn about orthopedics one big area of

492

00:22:48,970 --> 00:22:46,940

orthopedic surgery is the hip fractures

493

00:22:52,540 --> 00:22:48,980

in the elderly it's an extremely common

494

00:22:54,370 --> 00:22:52,550

condition and and most people have a

495

00:22:56,110 --> 00:22:54,380

grandmother or an RD or someone who's

496

00:22:57,910 --> 00:22:56,120

had a hip fracture and had a fixed or

497

00:23:00,250 --> 00:22:57,920

had it replaced or pinned or whatever

498

00:23:03,400 --> 00:23:00,260

it's very common we would do that

499

00:23:08,080 --> 00:23:03,410

operation every day in most hospitals in

500

00:23:09,580 --> 00:23:08,090

the world and they all undergo surgery

501
00:23:13,590 --> 00:23:09,590
whereas in the old days a lot of them

502
00:23:16,840 --> 00:23:13,600
were treated in traction or other ways

503
00:23:18,490 --> 00:23:16,850
but there's this belief that without

504
00:23:23,350 --> 00:23:18,500
surgery these patients are somehow

505
00:23:25,810 --> 00:23:23,360
doomed and there's an urgency associated

506
00:23:27,700 --> 00:23:25,820
with the operation and a lot of Surgeons

507
00:23:30,460 --> 00:23:27,710
believe that the patients have to be

508
00:23:32,470 --> 00:23:30,470
operated on immediately or within 24

509
00:23:36,520 --> 00:23:32,480
hours otherwise the mortality is

510
00:23:39,040 --> 00:23:36,530
unacceptable and if it's left wall in a

511
00:23:42,130 --> 00:23:39,050
few days then the patient's sort of you

512
00:23:44,600 --> 00:23:42,140
know deteriorate and it's it's really

513
00:23:47,390 --> 00:23:44,610

quite an emergency and often

514

00:23:49,010 --> 00:23:47,400

say to the junior doctors so what would

515

00:23:51,169 --> 00:23:49,020

happen if we treated this fracture not

516

00:23:54,620 --> 00:23:51,179

operatively if we treated it say in

517

00:23:56,000 --> 00:23:54,630

traction and they often kind of just

518

00:23:58,400 --> 00:23:56,010

laugh at me just think I'm having a joke

519

00:23:59,780 --> 00:23:58,410

and I go no I'm serious what would

520

00:24:03,650 --> 00:23:59,790

happen and they all the patient would

521

00:24:06,530 --> 00:24:03,660

die and I say well really what would

522

00:24:09,230 --> 00:24:06,540

they die off me and all they'd be

523

00:24:13,190 --> 00:24:09,240

immobilized in bed so they would get bed

524

00:24:15,950 --> 00:24:13,200

sores and pneumonia and urinary tract

525

00:24:18,230 --> 00:24:15,960

infections and terrible complications

526

00:24:19,760 --> 00:24:18,240

and they would the patients would

527

00:24:22,010 --> 00:24:19,770

deteriorate to such an extent they're

528

00:24:24,950 --> 00:24:22,020

elderly anyway in their reserves are as

529

00:24:26,810 --> 00:24:24,960

good and basically died the only

530

00:24:29,480 --> 00:24:26,820

randomized control trial has ever been

531

00:24:32,390 --> 00:24:29,490

done has done some time ago and it

532

00:24:35,240 --> 00:24:32,400

randomized patients to traction versus

533

00:24:38,060 --> 00:24:35,250

surgical fixation for hip fractures in

534

00:24:39,770 --> 00:24:38,070

elderly patients there was no difference

535

00:24:42,530 --> 00:24:39,780

in the mortality between the two groups

536

00:24:43,789 --> 00:24:42,540

and that's when it's quite obvious the

537

00:24:46,190 --> 00:24:43,799

difference would be quite obviously the

538

00:24:48,770 --> 00:24:46,200

patient yeah so it's not blinded it's

539

00:24:50,539 --> 00:24:48,780

yeah it's not it's not blinded is

540

00:24:52,909 --> 00:24:50,549

randomized in control it's I'm buying it

541

00:24:54,200 --> 00:24:52,919

yeah it's not blinded so you're going to

542

00:24:56,150 --> 00:24:54,210

be children operatively you're going to

543

00:24:57,530 --> 00:24:56,160

be treated operatively but there's no

544

00:24:59,240 --> 00:24:57,540

difference in the mortality you're no

545

00:25:01,039 --> 00:24:59,250

more likely to die if you get triggered

546

00:25:03,650 --> 00:25:01,049

on operatively then if you get treated

547

00:25:05,419 --> 00:25:03,660

operatively I need a few tell surgeons

548

00:25:08,120 --> 00:25:05,429

this they don't believe you most of them

549

00:25:10,970 --> 00:25:08,130

aren't even aware of the study that was

550

00:25:12,470 --> 00:25:10,980

done and the same thing with the urgency

551
00:25:14,830 --> 00:25:12,480
of the procedure if you look at the

552
00:25:19,669 --> 00:25:14,840
literature sign typically and if you

553
00:25:21,530 --> 00:25:19,679
control for the general condition of the

554
00:25:23,450 --> 00:25:21,540
patient there's really no difference if

555
00:25:26,090 --> 00:25:23,460
you operate on it within 12 hours or 24

556
00:25:28,850 --> 00:25:26,100
hours of 48 hours or probably 72 hours

557
00:25:30,470 --> 00:25:28,860
in fact that randomized control trial

558
00:25:32,180 --> 00:25:30,480
that I mentioned shows you that it's

559
00:25:34,190 --> 00:25:32,190
there's no difference in mortality if

560
00:25:35,900 --> 00:25:34,200
you never operate on them so it's hard

561
00:25:37,430 --> 00:25:35,910
to argue that you need to operate in a

562
00:25:38,690 --> 00:25:37,440
certain number of hours when we know

563
00:25:42,140 --> 00:25:38,700

that if you don't operate at all it

564

00:25:44,890 --> 00:25:42,150

doesn't make any difference and a lot of

565

00:25:47,690 --> 00:25:44,900

these studies tend to be biased because

566

00:25:49,460 --> 00:25:47,700

the patients that they're not controlled

567

00:25:51,110 --> 00:25:49,470

trials so the patient's you get operated

568

00:25:53,690 --> 00:25:51,120

on earlier of the fitter and healthier

569

00:25:55,490 --> 00:25:53,700

ones who are fit for the operation the

570

00:25:57,100 --> 00:25:55,500

patients who are medically unwell and

571

00:26:01,160 --> 00:25:57,110

need some work up

572

00:26:02,270 --> 00:26:01,170

transfusion or a pacemaker or something

573

00:26:03,470 --> 00:26:02,280

this they're the ones they go up wrote

574

00:26:05,090 --> 00:26:03,480

it on later and they're going to have a

575

00:26:07,370 --> 00:26:05,100

high mortality anyway because they're

576

00:26:10,550 --> 00:26:07,380

sicker so but good studies would

577

00:26:12,380 --> 00:26:10,560

actually look at yeah and the better

578

00:26:15,370 --> 00:26:12,390

studies that i slor' the variables and

579

00:26:18,320 --> 00:26:15,380

allow for this do not show this dramatic

580

00:26:23,330 --> 00:26:18,330

difference in mortality that the poorest

581

00:26:27,050 --> 00:26:23,340

studies show but unfortunately a lot of

582

00:26:30,860 --> 00:26:27,060

the people who are making the decisions

583

00:26:36,170 --> 00:26:30,870

about surgical treatment don't have the

584

00:26:39,230 --> 00:26:36,180

skills and the will to get to the bottom

585

00:26:42,620 --> 00:26:39,240

of the literature and you know I guess

586

00:26:44,600 --> 00:26:42,630

to be fair to them i mean there's data

587

00:26:47,210 --> 00:26:44,610

out there and how many medical articles

588

00:26:49,100 --> 00:26:47,220

are published every day and and in order

589

00:26:52,730 --> 00:26:49,110

to be a head of the medical literature

590

00:26:54,650 --> 00:26:52,740

you would have to read for you know 48

591

00:26:55,880 --> 00:26:54,660

hours a day or something just to just to

592

00:26:58,250 --> 00:26:55,890

stay on top of everything that's coming

593

00:27:00,440 --> 00:26:58,260

out but you know the evidence is there

594

00:27:01,520 --> 00:27:00,450

if you if you look for it and if you

595

00:27:03,830 --> 00:27:01,530

know where to look there's good

596

00:27:06,200 --> 00:27:03,840

summaries of the evidence Cochrane

597

00:27:08,630 --> 00:27:06,210

reviews and things like that which are

598

00:27:11,060 --> 00:27:08,640

which are very helpful so how do you

599

00:27:13,250 --> 00:27:11,070

change that culture of preferring

600

00:27:16,280 --> 00:27:13,260

clinical judgment of a science and

601
00:27:19,730 --> 00:27:16,290
studies that's a very good question

602
00:27:23,450 --> 00:27:19,740
because that's what we need to do we

603
00:27:27,680 --> 00:27:23,460
need to have the decision makers the the

604
00:27:30,050 --> 00:27:27,690
doctors basing their decisions on better

605
00:27:33,680 --> 00:27:30,060
science and have them able to interpret

606
00:27:36,920 --> 00:27:33,690
the data better okay the first answer

607
00:27:41,720 --> 00:27:36,930
that question is it is changing so a lot

608
00:27:42,920 --> 00:27:41,730
more people are savvy to the scientific

609
00:27:45,560 --> 00:27:42,930
side of things and evidence-based

610
00:27:47,540 --> 00:27:45,570
medicine and particularly for reasons

611
00:27:51,410 --> 00:27:47,550
I'm not sure of in the United States and

612
00:27:54,920 --> 00:27:51,420
Canada so in North America they're a lot

613
00:27:57,350 --> 00:27:54,930

more aware of these things and it has

614

00:28:01,430 --> 00:27:57,360

changed a lot in the last 10 to 20 years

615

00:28:03,020 --> 00:28:01,440

so it is changing what are we it's I

616

00:28:04,550 --> 00:28:03,030

would say the same thing for Australia

617

00:28:08,570 --> 00:28:04,560

in the UK other countries that can't

618

00:28:10,490 --> 00:28:08,580

really comment on but so what is that

619

00:28:11,890 --> 00:28:10,500

we're doing to make this change

620

00:28:15,310 --> 00:28:11,900

there's probably a little bit more

621

00:28:19,420 --> 00:28:15,320

emphasis on evidence-based medicine

622

00:28:24,740 --> 00:28:19,430

principles in undergraduate medicine

623

00:28:27,170 --> 00:28:24,750

it's it becomes a kind of

624

00:28:28,580 --> 00:28:27,180

self-propagating thing that people get

625

00:28:32,480 --> 00:28:28,590

interested in it and so they teach

626
00:28:34,040 --> 00:28:32,490
younger people about it and they become

627
00:28:36,080 --> 00:28:34,050
aware that this is the right way of

628
00:28:39,410 --> 00:28:36,090
seeing things and so they teach other

629
00:28:43,280 --> 00:28:39,420
people and it kind of spreads by

630
00:28:46,970 --> 00:28:43,290
influence and we've made an effort in

631
00:28:50,180 --> 00:28:46,980
the College of Surgeons in Australia now

632
00:28:53,870 --> 00:28:50,190
has a course which is run which is done

633
00:28:56,510 --> 00:28:53,880
by most young trainees which is a course

634
00:28:58,130 --> 00:28:56,520
that I'm involved in called the clear

635
00:29:00,050 --> 00:28:58,140
course which stands for critical

636
00:29:03,530 --> 00:29:00,060
literature evaluation and research which

637
00:29:05,540 --> 00:29:03,540
is basically just a two-day you know

638
00:29:10,940 --> 00:29:05,550

summary course about evidence-based

639

00:29:13,060 --> 00:29:10,950

medicine but I I do sometimes question

640

00:29:20,270 --> 00:29:13,070

the effectiveness of that course I think

641

00:29:23,900 --> 00:29:20,280

sometimes people will get really have

642

00:29:25,460 --> 00:29:23,910

their eyes opened by it and a very open

643

00:29:26,600 --> 00:29:25,470

to it and it changes their practice but

644

00:29:29,030 --> 00:29:26,610

some people just sit there and they're

645

00:29:30,920 --> 00:29:29,040

only doing the course because they have

646

00:29:32,930 --> 00:29:30,930

to get it ticked off on their CV or

647

00:29:34,430 --> 00:29:32,940

something like that and so it can be

648

00:29:36,590 --> 00:29:34,440

hard to get through to something what

649

00:29:38,360 --> 00:29:36,600

about you mentioned earlier the doctors

650

00:29:40,550 --> 00:29:38,370

are not actually trained very well in

651
00:29:42,230 --> 00:29:40,560
the scientific method while in medical

652
00:29:44,480 --> 00:29:42,240
school is that something that you

653
00:29:48,080 --> 00:29:44,490
believe can be changed or he's changing

654
00:29:51,470 --> 00:29:48,090
yeah I definitely can be changed I

655
00:29:54,200 --> 00:29:51,480
believe it is challenging but it's a bit

656
00:29:57,800 --> 00:29:54,210
hard to keep track of because I'm not

657
00:30:00,560 --> 00:29:57,810
directly involved in the course

658
00:30:02,810 --> 00:30:00,570
curriculum for undergraduate medicine

659
00:30:05,570 --> 00:30:02,820
and now particularly new south wales the

660
00:30:10,640 --> 00:30:05,580
last five years we've seen an extra one

661
00:30:14,900 --> 00:30:10,650
two three four five I think medical

662
00:30:17,330 --> 00:30:14,910
schools open up and I have no idea what

663
00:30:18,470 --> 00:30:17,340

they're teaching but there's so many you

664

00:30:21,230 --> 00:30:18,480

know when I went through there was only

665

00:30:22,280 --> 00:30:21,240

two medical schools and others until

666

00:30:24,320 --> 00:30:22,290

they must be up seven or eight in New

667

00:30:26,810 --> 00:30:24,330

South Wales but I assume that there

668

00:30:29,289 --> 00:30:26,820

there is a core curriculum for medicine

669

00:30:31,669 --> 00:30:29,299

in the rightful registration in yourself

670

00:30:34,279 --> 00:30:31,679

I'm not sure because I know that the

671

00:30:37,159 --> 00:30:34,289

course does vary a lot between the

672

00:30:38,990 --> 00:30:37,169

universities it varies quite a lot so

673

00:30:41,299 --> 00:30:39,000

I'm not sure whether there's a core

674

00:30:43,190 --> 00:30:41,309

curriculum I don't think it's like the

675

00:30:45,889 --> 00:30:43,200

HSC or anything about that where you

676

00:30:48,860 --> 00:30:45,899

have to cover cert things that's

677

00:30:51,680 --> 00:30:48,870

actually been scary because ain't nobody

678

00:30:56,629 --> 00:30:51,690

with Justin HSC would come near me with

679

00:30:57,950 --> 00:30:56,639

a knife well hopefully but all you have

680

00:31:01,460 --> 00:30:57,960

to get all you have to do to be

681

00:31:03,370 --> 00:31:01,470

registered just have a medical degree in

682

00:31:06,710 --> 00:31:03,380

order to get your medical degree

683

00:31:08,149 --> 00:31:06,720

accredited from the University so say

684

00:31:10,610 --> 00:31:08,159

for instance University of Western

685

00:31:12,710 --> 00:31:10,620

Sydney which has opened up recently they

686

00:31:16,129 --> 00:31:12,720

developed a medical course from the

687

00:31:17,450 --> 00:31:16,139

ground up now this is where it's not my

688

00:31:18,769 --> 00:31:17,460

area of expertise but I assume they

689

00:31:24,799 --> 00:31:18,779

would have had to have their medical

690

00:31:27,680 --> 00:31:24,809

course accredited and but what I can't

691

00:31:30,470 --> 00:31:27,690

tell you is what how stringent that is

692

00:31:32,600 --> 00:31:30,480

or what criteria there are to have a

693

00:31:35,480 --> 00:31:32,610

medical course accredited you'll be

694

00:31:38,269 --> 00:31:35,490

interesting to find out to find out who

695

00:31:41,720 --> 00:31:38,279

the accreditation but who the

696

00:31:44,379 --> 00:31:41,730

accreditation authority is who's who's

697

00:31:46,759 --> 00:31:44,389

on it and how they evaluate their

698

00:31:48,139 --> 00:31:46,769

courses if you Father let me know

699

00:31:49,549 --> 00:31:48,149

because it would be interested yeah well

700

00:31:51,320 --> 00:31:49,559

I think I think it's very interesting

701

00:31:53,120 --> 00:31:51,330

and it probably leads up to my next

702

00:31:55,399 --> 00:31:53,130

question which is to do with public

703

00:31:57,169 --> 00:31:55,409

demand one of the things that we as

704

00:31:59,950 --> 00:31:57,179

skeptics do is try to educate the public

705

00:32:05,000 --> 00:31:59,960

how to think critically and not take

706

00:32:07,100 --> 00:32:05,010

claims at face value and try to explain

707

00:32:08,960 --> 00:32:07,110

to people why while science is

708

00:32:11,210 --> 00:32:08,970

definitely not perfect it's the best

709

00:32:13,159 --> 00:32:11,220

best method we have of finding what's

710

00:32:16,039 --> 00:32:13,169

true and what's not true and of course

711

00:32:19,090 --> 00:32:16,049

it's very true in medicine scientific

712

00:32:22,399 --> 00:32:19,100

medicine and I'm wondering whether

713

00:32:25,870 --> 00:32:22,409

educating the public to demand of the

714

00:32:28,789 --> 00:32:25,880

doctors demand of the authorities that

715

00:32:33,639 --> 00:32:28,799

treatments are based on science would be

716

00:32:37,850 --> 00:32:33,649

a good approach yeah i agree i think the

717

00:32:42,169 --> 00:32:37,860

public should be educated better I don't

718

00:32:43,730 --> 00:32:42,179

know whether they should be able to look

719

00:32:45,620 --> 00:32:43,740

at some of the evidence themselves or

720

00:32:47,149 --> 00:32:45,630

have some kind of access to the evidence

721

00:32:48,620 --> 00:32:47,159

behind the procedure that's been

722

00:32:51,710 --> 00:32:48,630

recommended to them or the drug that's

723

00:32:54,529 --> 00:32:51,720

been prescribed to them I think if they

724

00:32:56,060 --> 00:32:54,539

ask the doctors then there will be a

725

00:32:58,519 --> 00:32:56,070

tendency to get around it by saying oh

726

00:33:04,490 --> 00:32:58,529

yes the evidence is very good here's the

727

00:33:07,220 --> 00:33:04,500

tablet because the the patient's ability

728

00:33:11,570 --> 00:33:07,230

to interpret the evidence might not be

729

00:33:15,399 --> 00:33:11,580

very good the doctor's ability to convey

730

00:33:17,779 --> 00:33:15,409

the relative merits and strengths of

731

00:33:21,110 --> 00:33:17,789

different studies to a patient might be

732

00:33:22,399 --> 00:33:21,120

very difficult so in essence it's going

733

00:33:25,549 --> 00:33:22,409

to come down to just trusting the

734

00:33:27,110 --> 00:33:25,559

doctor's opinion again probably oh you

735

00:33:32,330 --> 00:33:27,120

know there's there's this thing I'm

736

00:33:34,789 --> 00:33:32,340

actually not so sure that I would like

737

00:33:38,029 --> 00:33:34,799

to believe that that's the case and I'll

738

00:33:39,769 --> 00:33:38,039

probably explain why that you know they

739

00:33:44,450 --> 00:33:39,779

always say half the population it has

740

00:33:45,560 --> 00:33:44,460

below-average intelligence but also half

741

00:33:48,169 --> 00:33:45,570

the population has above-average

742

00:33:50,389 --> 00:33:48,179

intelligence and half the population has

743

00:33:51,830 --> 00:33:50,399

above-average education levels and you

744

00:33:53,990 --> 00:33:51,840

don't have to educate a hundred percent

745

00:33:55,430 --> 00:33:54,000

of the population but you have if you

746

00:33:57,379 --> 00:33:55,440

have say twenty-five percent of our

747

00:33:59,269 --> 00:33:57,389

population who are able to understand

748

00:34:01,909 --> 00:33:59,279

what studies are all about and are able

749

00:34:03,110 --> 00:34:01,919

to ask the doctor what was the evidence

750

00:34:06,619 --> 00:34:03,120

for this treatment that you're

751
00:34:08,960 --> 00:34:06,629
recommending to me and what what are the

752
00:34:11,510 --> 00:34:08,970
risks what are the percentages get into

753
00:34:13,460 --> 00:34:11,520
it in detail that's an it you don't need

754
00:34:15,349 --> 00:34:13,470
a hundred percent to claim to require

755
00:34:17,659 --> 00:34:15,359
that if you have twenty twenty-five

756
00:34:20,270 --> 00:34:17,669
percent require that doctors will get in

757
00:34:21,950 --> 00:34:20,280
the habit of knowing yes it's not even

758
00:34:23,899 --> 00:34:21,960
about explaining it's about knowing the

759
00:34:27,740 --> 00:34:23,909
evidence yeah and they might actually

760
00:34:28,639 --> 00:34:27,750
get into a mode where they treat you

761
00:34:30,649 --> 00:34:28,649
know

762
00:34:31,849 --> 00:34:30,659
choose treatments based on evidence

763
00:34:33,169 --> 00:34:31,859

because they have to explain this to

764

00:34:37,399 --> 00:34:33,179

twenty twenty-five percent of their

765

00:34:40,309 --> 00:34:37,409

patients yeah I agree yeah I agree and

766

00:34:42,409 --> 00:34:40,319

if I go to the doctor or I take a family

767

00:34:44,750 --> 00:34:42,419

member to the doctor um I've asking the

768

00:34:50,510 --> 00:34:44,760

questions and i'm looking it up before I

769

00:34:52,490 --> 00:34:50,520

know so I have some experience with that

770

00:34:58,370 --> 00:34:52,500

but it's asking the right question as

771

00:35:02,240 --> 00:34:58,380

well I mean there's a lot of things out

772

00:35:05,839 --> 00:35:02,250

there that in medicine that there is

773

00:35:09,260 --> 00:35:05,849

evidence that they work for a certain

774

00:35:13,760 --> 00:35:09,270

outcome that they might have they then

775

00:35:18,019 --> 00:35:13,770

might not work overall so what are some

776

00:35:23,170 --> 00:35:18,029

of the classic examples classic example

777

00:35:32,710 --> 00:35:23,180

would probably be in surgery carotid

778

00:35:37,490 --> 00:35:32,720

bypass surgery for preventing strokes

779

00:35:41,839 --> 00:35:37,500

which was very popular in probably 20

780

00:35:45,200 --> 00:35:41,849

years ago or so and if you look at the

781

00:35:47,210 --> 00:35:45,210

evidence of whether it reduces the risk

782

00:35:51,190 --> 00:35:47,220

of stroke which is what you're

783

00:35:54,069 --> 00:35:51,200

interested in then it looked very good

784

00:35:59,329 --> 00:35:54,079

that's if you excluded the patients that

785

00:36:02,180 --> 00:35:59,339

died from the operation or perhaps had

786

00:36:06,710 --> 00:36:02,190

an early massive stroke things like that

787

00:36:10,670 --> 00:36:06,720

so in the end when you looked at it it

788

00:36:11,720 --> 00:36:10,680

it was probably worse off there isn't

789

00:36:14,480 --> 00:36:11,730

any way of looking at it though

790

00:36:17,180 --> 00:36:14,490

eliminating them exactly oh well it's

791

00:36:18,440 --> 00:36:17,190

the old thing of disease specific

792

00:36:20,450 --> 00:36:18,450

mortality and what is happening sorry

793

00:36:21,799 --> 00:36:20,460

this is a real epidemiological argument

794

00:36:26,120 --> 00:36:21,809

because if you look at a lot of

795

00:36:29,680 --> 00:36:26,130

treatments they are very good at

796

00:36:32,180 --> 00:36:29,690

reducing the disease specific mortality

797

00:36:36,079 --> 00:36:32,190

so if you've got a treatment from breast

798

00:36:37,819 --> 00:36:36,089

cancer say like radiotherapy I think if

799

00:36:39,500 --> 00:36:37,829

you look there has been studies done if

800

00:36:40,790 --> 00:36:39,510

you look at radiotherapy for breast

801
00:36:44,150 --> 00:36:40,800
cancer

802
00:36:48,020 --> 00:36:44,160
matically reduces the risk of dying from

803
00:36:50,540 --> 00:36:48,030
breast cancer and so that's it end of

804
00:36:53,000 --> 00:36:50,550
argument I mean it's just sounds like

805
00:36:55,550 --> 00:36:53,010
radiotherapy is carcinogenic in Sunrise

806
00:36:58,160 --> 00:36:55,560
exactly but it increases the risk of

807
00:37:01,160 --> 00:36:58,170
dying from other things and so the

808
00:37:02,600 --> 00:37:01,170
actual risk of death after 20 years with

809
00:37:06,230 --> 00:37:02,610
or without radiotherapy is probably not

810
00:37:08,660 --> 00:37:06,240
a lot different and same thing with this

811
00:37:11,540 --> 00:37:08,670
is the the debate that goes on with mass

812
00:37:15,970 --> 00:37:11,550
screening for things because it will

813
00:37:22,700 --> 00:37:18,440

mammograms for breast cancer which are

814

00:37:25,040 --> 00:37:22,710

being pushed in this state anyway and in

815

00:37:27,560 --> 00:37:25,050

a lot of places because it sounds good i

816

00:37:29,960 --> 00:37:27,570

always say this to my students if

817

00:37:33,500 --> 00:37:29,970

something sounds good if it sounds

818

00:37:35,870 --> 00:37:33,510

biologically plausible then i'd say odds

819

00:37:38,480 --> 00:37:35,880

are it's probably not true because you

820

00:37:41,360 --> 00:37:38,490

can make anything sound biologically

821

00:37:43,340 --> 00:37:41,370

plausible and whereas that's what we

822

00:37:46,850 --> 00:37:43,350

used to hang our hat on the old days was

823

00:37:49,160 --> 00:37:46,860

making a biologically you know argument

824

00:37:50,570 --> 00:37:49,170

for something to justify yourself now I

825

00:37:52,880 --> 00:37:50,580

think you can make a biological judge

826

00:37:54,830 --> 00:37:52,890

argument for just about anything and

827

00:37:56,840 --> 00:37:54,840

that's what people do and time and time

828

00:38:00,770 --> 00:37:56,850

again it gets shown to to be not the

829

00:38:04,790 --> 00:38:00,780

case I mean I can't believe how people

830

00:38:09,430 --> 00:38:04,800

are so adamant that mammography breast

831

00:38:12,860 --> 00:38:09,440

screening is is saving countless lives

832

00:38:15,290 --> 00:38:12,870

when you look at the evidence it's very

833

00:38:16,550 --> 00:38:15,300

questionable I mean there's there's a

834

00:38:19,310 --> 00:38:16,560

lot of debates written about this and

835

00:38:21,740 --> 00:38:19,320

the bmj studies of hundreds of thousands

836

00:38:24,380 --> 00:38:21,750

of patients randomized to mammography

837

00:38:26,840 --> 00:38:24,390

versus no mammography in Scandinavia

838

00:38:28,910 --> 00:38:26,850

think another one from Canada I think

839

00:38:31,250 --> 00:38:28,920

all of the studies have shown a decrease

840

00:38:33,110 --> 00:38:31,260

in disease specific mortality because

841

00:38:34,900 --> 00:38:33,120

you're diagnosing breast cancer in so

842

00:38:40,610 --> 00:38:34,910

many more people you're just not saving

843

00:38:43,190 --> 00:38:40,620

any lives so the risk of dying period in

844

00:38:45,110 --> 00:38:43,200

some of these studies were the same in

845

00:38:48,020 --> 00:38:45,120

both groups so that includes obviously a

846

00:38:51,200 --> 00:38:48,030

look at the life expectancy not just her

847

00:38:53,870 --> 00:38:51,210

yes yes we all die yes sir

848

00:38:57,140 --> 00:38:53,880

yeah but over a certain period of time

849

00:39:00,530 --> 00:38:57,150

the mortality was insane in one of the

850

00:39:03,020 --> 00:39:00,540

the Scandinavian studies the overall

851

00:39:04,490 --> 00:39:03,030

mortality in the time period looked at

852

00:39:07,550 --> 00:39:04,500

was actually higher in the mammography

853

00:39:10,099 --> 00:39:07,560

group than in the control group so you

854

00:39:12,140 --> 00:39:10,109

were less likely to die of breast cancer

855

00:39:14,150 --> 00:39:12,150

but you are more likely to know how

856

00:39:18,800 --> 00:39:14,160

could something like this be explained

857

00:39:20,270 --> 00:39:18,810

it doesn't seem doesn't seem to make

858

00:39:23,420 --> 00:39:20,280

sense because my mother if he's not even

859

00:39:25,609 --> 00:39:23,430

a treatment yeah well the theory is that

860

00:39:27,109 --> 00:39:25,619

well it's an interesting thing about the

861

00:39:32,060 --> 00:39:27,119

disease specific mortality because what

862

00:39:36,140 --> 00:39:32,070

it does is it probably over diagnosis so

863

00:39:39,020 --> 00:39:36,150

you're picking up the so-called breast

864

00:39:42,620 --> 00:39:39,030

cancer in patients that would never

865

00:39:44,690 --> 00:39:42,630

present would never normally be

866

00:39:46,550 --> 00:39:44,700

diagnosed with breast cancer maybe die

867

00:39:48,530 --> 00:39:46,560

or something else first maybe never get

868

00:39:50,839 --> 00:39:48,540

it to a stage where it's clinically

869

00:39:53,630 --> 00:39:50,849

apparent or causing them significant

870

00:39:55,430 --> 00:39:53,640

concern so in the mammography group the

871

00:40:00,380 --> 00:39:55,440

rate of breast cancer is going to be

872

00:40:02,180 --> 00:40:00,390

hugely higher so your disease specific

873

00:40:03,650 --> 00:40:02,190

mortality is going to be lower because

874

00:40:06,079 --> 00:40:03,660

the only people that died of breast

875

00:40:08,589 --> 00:40:06,089

cancer in the non mammography group are

876

00:40:11,630 --> 00:40:08,599

people that actually really have a

877

00:40:14,660 --> 00:40:11,640

cancer that's causing problems in their

878

00:40:16,880 --> 00:40:14,670

breasts whereas the other group the

879

00:40:19,190 --> 00:40:16,890

mortality may be the same but half of

880

00:40:22,310 --> 00:40:19,200

them been diagnosed with carcinoma in

881

00:40:24,200 --> 00:40:22,320

sight you or all these sort of new

882

00:40:26,540 --> 00:40:24,210

diagnoses which never used to be called

883

00:40:28,460 --> 00:40:26,550

cancer before or something like that so

884

00:40:32,349 --> 00:40:28,470

they let they lower the threshold of

885

00:40:35,060 --> 00:40:32,359

what is a cancer and of course lasering

886

00:40:36,500 --> 00:40:35,070

also it has done research on or he's

887

00:40:38,870 --> 00:40:36,510

doing research on monitoring

888

00:40:42,170 --> 00:40:38,880

specifically I think also specifically

889

00:40:43,730 --> 00:40:42,180

about prostate cancer at least that's

890

00:40:45,710 --> 00:40:43,740

one of the areas that he's looking into

891

00:40:47,510 --> 00:40:45,720

and I think the results are very clear

892

00:40:50,660 --> 00:40:47,520

there as well they're lit monitoring

893

00:40:53,240 --> 00:40:50,670

leads to overdiagnosis treatment yeah it

894

00:40:55,130 --> 00:40:53,250

does and there's also the psychological

895

00:40:59,690 --> 00:40:55,140

harm in the Scandinavian study of

896

00:41:02,300 --> 00:40:59,700

mammography something like some tens of

897

00:41:04,190 --> 00:41:02,310

thousands of patients were falsely

898

00:41:07,010 --> 00:41:04,200

diagnosed with breast cancer

899

00:41:09,770 --> 00:41:07,020

and some thousands of those people ended

900

00:41:11,359 --> 00:41:09,780

up having a procedure you know so they

901
00:41:13,490 --> 00:41:11,369
thought they had cancer they ended up

902
00:41:14,810 --> 00:41:13,500
having to have a biopsy or an excision

903
00:41:20,359 --> 00:41:14,820
or some kind of procedure and the

904
00:41:23,480 --> 00:41:20,369
psychological side of that is huge and

905
00:41:27,650 --> 00:41:23,490
it's all unnecessary and two known net

906
00:41:32,180 --> 00:41:27,660
gain and and yet there's a there's a

907
00:41:34,490 --> 00:41:32,190
political a sort of a social side to

908
00:41:35,960 --> 00:41:34,500
this that if somebody gets up and says I

909
00:41:37,940 --> 00:41:35,970
think we should stop mammography

910
00:41:39,560 --> 00:41:37,950
screening because the evidence behind it

911
00:41:41,329 --> 00:41:39,570
isn't really very good and we need to

912
00:41:44,839 --> 00:41:41,339
rethink it or at least let's look at the

913
00:41:46,670 --> 00:41:44,849

evidence more objectively and it might

914

00:41:49,430 --> 00:41:46,680

not be a good thing you can't do that

915

00:41:54,109 --> 00:41:49,440

you can't get up and say that but they

916

00:41:56,839 --> 00:41:54,119

they had a one of my favorite programs

917

00:41:59,150 --> 00:41:56,849

is Norman swans Health Report which is

918

00:42:02,230 --> 00:41:59,160

very good I don't know Norman personally

919

00:42:05,930 --> 00:42:02,240

but I can tell you from a scientific

920

00:42:07,490 --> 00:42:05,940

standpoint he is excellent he asks to

921

00:42:10,940 --> 00:42:07,500

all the right questions and looks at the

922

00:42:12,559 --> 00:42:10,950

evidence really well and they produced i

923

00:42:15,290 --> 00:42:12,569

think it was alex barrett that actually

924

00:42:17,000 --> 00:42:15,300

did it who's a collaborator of less air

925

00:42:18,200 --> 00:42:17,010

wing yes yes she's a university student

926

00:42:21,140 --> 00:42:18,210

in school of public health and that's

927

00:42:24,440 --> 00:42:21,150

where I did my clinical epidemiology so

928

00:42:26,720 --> 00:42:24,450

that's why I know Liz and Alex they're

929

00:42:29,270 --> 00:42:26,730

very good that's a great unit but

930

00:42:35,240 --> 00:42:29,280

presented a very objective look at

931

00:42:37,490 --> 00:42:35,250

breast screening and and yet copped

932

00:42:41,270 --> 00:42:37,500

enormous flak from breast screen New

933

00:42:44,660 --> 00:42:41,280

South Wales how dare they publish such a

934

00:42:47,420 --> 00:42:44,670

broadcast such an irresponsible article

935

00:42:49,430 --> 00:42:47,430

and think of the countless lives that

936

00:42:52,160 --> 00:42:49,440

are saved you know every day from this

937

00:42:56,120 --> 00:42:52,170

procedure and how could they dare to

938

00:42:57,950 --> 00:42:56,130

question the standard practice I think

939

00:42:59,540 --> 00:42:57,960

it probably talks to the lack of

940

00:43:01,819 --> 00:42:59,550

understanding of how science works in

941

00:43:05,540 --> 00:43:01,829

large parts of the population including

942

00:43:07,010 --> 00:43:05,550

people who should probably yeah and and

943

00:43:09,859 --> 00:43:07,020

this is the problem with it sounding

944

00:43:12,079 --> 00:43:09,869

good because it it's hard to argue

945

00:43:15,380 --> 00:43:12,089

against what you say you need to have a

946

00:43:17,160 --> 00:43:15,390

mammogram because you might have breast

947

00:43:20,430 --> 00:43:17,170

cancer because you're a woman is best

948

00:43:22,170 --> 00:43:20,440

is very common the only way you really

949

00:43:24,599 --> 00:43:22,180

know is a mammogram it's a much better

950

00:43:27,839 --> 00:43:24,609

test than it is just trying to diagnose

951
00:43:29,849 --> 00:43:27,849
it yourself and if we diagnose that we

952
00:43:31,980 --> 00:43:29,859
can treat it perhaps before it becomes a

953
00:43:33,839 --> 00:43:31,990
problem and I mean it's just hard to

954
00:43:38,010 --> 00:43:33,849
argue against that I mean it is just so

955
00:43:39,569 --> 00:43:38,020
logical and yet it really doesn't bury

956
00:43:42,569 --> 00:43:39,579
out there's lots of reasons why it might

957
00:43:45,839 --> 00:43:42,579
not bear out and there's a lot of

958
00:43:49,319 --> 00:43:45,849
interesting kind of fallacies and biases

959
00:43:53,370 --> 00:43:49,329
that can be built into this interval

960
00:43:55,349 --> 00:43:53,380
bias and things that are difficult to

961
00:43:57,089 --> 00:43:55,359
explain but there's lots of reasons why

962
00:43:59,460 --> 00:43:57,099
probably doesn't work and and

963
00:44:01,349 --> 00:43:59,470

interestingly one of them is that

964

00:44:02,910 --> 00:44:01,359

probably a lot of the treatments that we

965

00:44:06,390 --> 00:44:02,920

give aren't nearly as effective as we

966

00:44:08,309 --> 00:44:06,400

think they are surgery for instance you

967

00:44:09,599 --> 00:44:08,319

know radiotherapy chemotherapy a lot of

968

00:44:13,470 --> 00:44:09,609

these things aren't nearly as effective

969

00:44:16,140 --> 00:44:13,480

as the public believed them to be so but

970

00:44:18,599 --> 00:44:16,150

we do see a significant reduction food

971

00:44:21,420 --> 00:44:18,609

from deaths from cancer for example over

972

00:44:24,059 --> 00:44:21,430

there must know i think if you look take

973

00:44:25,859 --> 00:44:24,069

prostate cancer for instance because if

974

00:44:27,450 --> 00:44:25,869

you this is a classic example of

975

00:44:31,260 --> 00:44:27,460

jiggling the numbers to make things look

976

00:44:33,240 --> 00:44:31,270

but if you look at the survival rate say

977

00:44:35,520 --> 00:44:33,250

i don't know pick a time five years or

978

00:44:38,250 --> 00:44:35,530

ten years I don't have the exact data

979

00:44:42,089 --> 00:44:38,260

with me but in the 1950s for prostate

980

00:44:44,460 --> 00:44:42,099

cancer there was it was a significant

981

00:44:47,520 --> 00:44:44,470

mortality you associated with prostate

982

00:44:49,829 --> 00:44:47,530

cancer if you were once you were

983

00:44:52,230 --> 00:44:49,839

diagnosed with it there was mallets just

984

00:44:56,400 --> 00:44:52,240

for argument's sake let's just say it

985

00:44:59,940 --> 00:44:56,410

was fifty percent now over the years we

986

00:45:03,200 --> 00:44:59,950

have been faced with an increase in the

987

00:45:07,620 --> 00:45:03,210

number of patients with prostate cancer

988

00:45:09,930 --> 00:45:07,630

and a significant lowering of the

989

00:45:12,630 --> 00:45:09,940

mortality associated with the diagnosis

990

00:45:14,789 --> 00:45:12,640

of prostate cancer and treatments have

991

00:45:17,250 --> 00:45:14,799

changed so on the surface of it and the

992

00:45:20,819 --> 00:45:17,260

same thing for breast cancer we're faced

993

00:45:22,260 --> 00:45:20,829

with an epidemic okay and I've heard the

994

00:45:23,549 --> 00:45:22,270

Minister for health say the same thing

995

00:45:25,020 --> 00:45:23,559

about breast cancer I've got a quote

996

00:45:28,720 --> 00:45:25,030

here that i keep on my computer because

997

00:45:30,850 --> 00:45:28,730

it is so ill-informed but it was

998

00:45:33,160 --> 00:45:30,860

uh who is the Minister for federal

999

00:45:35,440 --> 00:45:33,170

minister for health some years ago said

1000

00:45:36,580 --> 00:45:35,450

isn't this terrible we're faced with an

1001

00:45:38,200 --> 00:45:36,590

epidemic of breast cancer where the

1002

00:45:40,240 --> 00:45:38,210

numbers are shooting up through the roof

1003

00:45:41,860 --> 00:45:40,250

i mean it's everybody's got at me out

1004

00:45:44,920 --> 00:45:41,870

you know where is it wasn't diagnosed as

1005

00:45:49,600 --> 00:45:44,930

much before so the rate has doubled and

1006

00:45:54,130 --> 00:45:49,610

yet the survival from breast cancer has

1007

00:45:55,960 --> 00:45:54,140

improved over that time as well and so

1008

00:45:58,270 --> 00:45:55,970

isn't this fantastic it must be the

1009

00:46:01,210 --> 00:45:58,280

treatment that's done it and partly

1010

00:46:04,570 --> 00:46:01,220

what's done it is that the threshold for

1011

00:46:06,670 --> 00:46:04,580

the diagnosis has gone down so as soon

1012

00:46:10,150 --> 00:46:06,680

as you start including things that were

1013

00:46:11,650 --> 00:46:10,160

once called benign cysts or customer

1014

00:46:13,860 --> 00:46:11,660

insight you soon as you start including

1015

00:46:15,850 --> 00:46:13,870

them as cancer all the sudden you've

1016

00:46:17,830 --> 00:46:15,860

increased the number of people with

1017

00:46:20,830 --> 00:46:17,840

breast cancer okay so that's that's

1018

00:46:24,280 --> 00:46:20,840

given us the epidemic and then you've

1019

00:46:26,080 --> 00:46:24,290

treated everyone now surprise surprise

1020

00:46:28,810 --> 00:46:26,090

the patients who have customer it's what

1021

00:46:31,060 --> 00:46:28,820

you do extremely well you know the the

1022

00:46:35,410 --> 00:46:31,070

survival for that is very very high and

1023

00:46:37,510 --> 00:46:35,420

so you end up with an increased

1024

00:46:40,050 --> 00:46:37,520

incidence and so the numbers they showed

1025

00:46:43,210 --> 00:46:40,060

with prostate cancer was that the

1026

00:46:46,210 --> 00:46:43,220

mortality fell from fifty percent to

1027

00:46:48,670 --> 00:46:46,220

five percent the numbers of people were

1028

00:46:52,870 --> 00:46:48,680

the numbers of prostate cancer patients

1029

00:46:56,650 --> 00:46:52,880

presenting went up and yet the number of

1030

00:47:00,670 --> 00:46:56,660

people who died each year from prostate

1031

00:47:03,850 --> 00:47:00,680

cancer actually went up you know so it's

1032

00:47:05,500 --> 00:47:03,860

so it just makes it sound good to say

1033

00:47:07,030 --> 00:47:05,510

everyone's got prostate cancer but no

1034

00:47:09,100 --> 00:47:07,040

one's dying of it anymore so basically

1035

00:47:10,720 --> 00:47:09,110

we're talking about that diagnosis tools

1036

00:47:15,010 --> 00:47:10,730

being better nowadays but treatment

1037

00:47:16,660 --> 00:47:15,020

tools not necessarily catching up no I

1038

00:47:18,490 --> 00:47:16,670

don't think diagnostic tools are

1039

00:47:21,420 --> 00:47:18,500

necessarily better I think that there

1040

00:47:25,930 --> 00:47:21,430

has been a change in the threshold for

1041

00:47:27,790 --> 00:47:25,940

diagnosis up but so say 34 years ago

1042

00:47:30,000 --> 00:47:27,800

mammogram didn't exist so you wouldn't

1043

00:47:33,490 --> 00:47:30,010

can't you wouldn't be able to see

1044

00:47:36,140 --> 00:47:33,500

cancerous or precancerous some

1045

00:47:39,800 --> 00:47:36,150

formations here but how is this helped

1046

00:47:40,940 --> 00:47:39,810

now it just increased its ad increase

1047

00:47:42,770 --> 00:47:40,950

the number of people who are diagnosed

1048

00:47:45,200 --> 00:47:42,780

it's similar to although although it's

1049

00:47:47,930 --> 00:47:45,210

only really diagnose Don biopsy so if

1050

00:47:49,849 --> 00:47:47,940

you have an abnormal mammogram it will

1051

00:47:51,650 --> 00:47:49,859

only lead you to have a biopsy if it's

1052

00:47:53,089 --> 00:47:51,660

suspicious so the dollar back that if

1053

00:47:54,589 --> 00:47:53,099

you look at the number of biopsies you'd

1054

00:47:56,870 --> 00:47:54,599

find that they've gone up as well yes

1055

00:47:59,150 --> 00:47:56,880

the other half so it's to me it's a

1056

00:48:01,900 --> 00:47:59,160

little bit like the whole autism

1057

00:48:03,980 --> 00:48:01,910

vaccination argument where the

1058

00:48:05,720 --> 00:48:03,990

anti-vaccination lobby claimed that

1059

00:48:08,300 --> 00:48:05,730

autism is obviously caused by vaccines

1060

00:48:11,510 --> 00:48:08,310

and the reason is they did their

1061

00:48:14,569 --> 00:48:11,520

evidence is that as vaccines vaccination

1062

00:48:16,430 --> 00:48:14,579

rates have gone up so have autism now in

1063

00:48:18,050 --> 00:48:16,440

what happened in the world is that in

1064

00:48:20,390 --> 00:48:18,060

certain places vaccination rates have

1065

00:48:22,309 --> 00:48:20,400

dropped so we had a natural experiment

1066

00:48:25,579 --> 00:48:22,319

unnatural epidemiological experiment

1067

00:48:27,349 --> 00:48:25,589

where the vaccination rates of job in

1068

00:48:29,660 --> 00:48:27,359

autism rates of course continue to rise

1069

00:48:32,300 --> 00:48:29,670

because it's got to do with a broadening

1070

00:48:34,400 --> 00:48:32,310

of criteria and with better diagnosis so

1071

00:48:37,010 --> 00:48:34,410

this gets a little bit it's a little bit

1072

00:48:39,140 --> 00:48:37,020

similar this get suttin yeah I on to my

1073

00:48:44,660 --> 00:48:39,150

next my next favorite topic which is

1074

00:48:46,910 --> 00:48:44,670

medicalization and yeah I don't know how

1075

00:48:49,370 --> 00:48:46,920

many kids and families I know have

1076

00:48:51,200 --> 00:48:49,380

autism now I mean nobody had it when I

1077

00:48:55,819 --> 00:48:51,210

was a kid now everybody's got some

1078

00:48:56,900 --> 00:48:55,829

degree of it and a lot of these kids do

1079

00:48:58,490 --> 00:48:56,910

you really want a school and they look

1080

00:49:00,290 --> 00:48:58,500

fine to me but i don't know i'm not an

1081

00:49:02,180 --> 00:49:00,300

expert and that kind of thing but yeah

1082

00:49:03,950 --> 00:49:02,190

surely it's diagnosed morning other than

1083

00:49:05,450 --> 00:49:03,960

ors before and it's not because it's an

1084

00:49:06,710 --> 00:49:05,460

epidemic it's probably because the

1085

00:49:10,550 --> 00:49:06,720

threshold or the diagnostic criteria

1086

00:49:12,410 --> 00:49:10,560

change and it's like depression you know

1087

00:49:15,079 --> 00:49:12,420

and and people i don't know people just

1088

00:49:17,540 --> 00:49:15,089

want to buy these things up it's in some

1089

00:49:19,370 --> 00:49:17,550

people's interests it's in the drug

1090

00:49:22,280 --> 00:49:19,380

company that makes antidepressants

1091

00:49:24,050 --> 00:49:22,290

interest to make depression appear to be

1092

00:49:26,720 --> 00:49:24,060

a problem i remember must be enough we

1093

00:49:27,829 --> 00:49:26,730

must be up to the stage now where 51% of

1094

00:49:31,370 --> 00:49:27,839

the people in the world have depression

1095

00:49:32,660 --> 00:49:31,380

you know the other fifty percent a to

1096

00:49:38,900 --> 00:49:32,670

hazard so when they need so they

1097

00:49:41,059 --> 00:49:38,910

normally yes by the way this thing about

1098

00:49:42,920 --> 00:49:41,069

over medicalization is not something

1099

00:49:44,839 --> 00:49:42,930

that only the scientific medical

1100

00:49:47,329 --> 00:49:44,849

fraternity

1101
00:49:48,469 --> 00:49:47,339
or so-called fraternities responsible

1102
00:49:50,349 --> 00:49:48,479
for it's something that we see in

1103
00:49:54,170 --> 00:49:50,359
alternatives to medicine as well and

1104
00:49:56,059 --> 00:49:54,180
where they make claims about how bad

1105
00:49:57,769 --> 00:49:56,069
things are but they also make claims as

1106
00:50:00,650 --> 00:49:57,779
to what they can treat of course they

1107
00:50:02,960 --> 00:50:00,660
treat with water or with you know making

1108
00:50:04,670 --> 00:50:02,970
you know making your back click it's

1109
00:50:06,469 --> 00:50:04,680
something that is that has no evidence

1110
00:50:08,779 --> 00:50:06,479
for so it seems to me like there's a bit

1111
00:50:11,029 --> 00:50:08,789
of a bit of a parallel here although I

1112
00:50:12,319 --> 00:50:11,039
would say one thing that you have to say

1113
00:50:14,660 --> 00:50:12,329

for a scientific medicine is that

1114

00:50:17,120 --> 00:50:14,670

there's at least the attitude that we

1115

00:50:19,279 --> 00:50:17,130

have to show scientifically what works

1116

00:50:21,620 --> 00:50:19,289

and what not I would say the big

1117

00:50:23,719 --> 00:50:21,630

advantage that medicine has over say

1118

00:50:32,779 --> 00:50:23,729

complementary alternative medicines is

1119

00:50:34,999 --> 00:50:32,789

that it is based on science okay so it's

1120

00:50:36,349 --> 00:50:35,009

using the scientific method and there

1121

00:50:38,719 --> 00:50:36,359

are a lot of people and especially the

1122

00:50:42,229 --> 00:50:38,729

you know the big names and a lot of

1123

00:50:45,829 --> 00:50:42,239

people in influence are using very good

1124

00:50:48,309 --> 00:50:45,839

scientific methods to to examine what

1125

00:50:52,130 --> 00:50:48,319

they what they're looking for the

1126
00:50:53,479 --> 00:50:52,140
downside of medicine compared to because

1127
00:50:55,069 --> 00:50:53,489
you've got to say okay somebody's sick

1128
00:50:56,870 --> 00:50:55,079
they got they got a pain in his stomach

1129
00:51:01,880 --> 00:50:56,880
should they go to a doctor or should

1130
00:51:04,039 --> 00:51:01,890
they go to a homeopath okay now your

1131
00:51:06,620 --> 00:51:04,049
argument then is well at least what the

1132
00:51:08,569 --> 00:51:06,630
doctors doing is is based on some signs

1133
00:51:11,440 --> 00:51:08,579
even though he may not necessarily be

1134
00:51:15,170 --> 00:51:11,450
able to diagnose them or he may be wrong

1135
00:51:18,589 --> 00:51:15,180
you know at least he's approaching in a

1136
00:51:19,880 --> 00:51:18,599
scientific manner well I would argue

1137
00:51:24,469 --> 00:51:19,890
that a lot of the time he probably isn't

1138
00:51:27,709 --> 00:51:24,479

but but having said that a lot of the

1139

00:51:30,019 --> 00:51:27,719

time they are that's the advantage the

1140

00:51:33,019 --> 00:51:30,029

downside is that the patient who goes to

1141

00:51:36,680 --> 00:51:33,029

the homeopath is much less likely to

1142

00:51:39,640 --> 00:51:36,690

have harm done to them whereas the

1143

00:51:42,709 --> 00:51:39,650

potential for harm being done to you by

1144

00:51:45,650 --> 00:51:42,719

attending a hospital is enormous

1145

00:51:48,979 --> 00:51:45,660

although you might say that going to a

1146

00:51:51,819 --> 00:51:48,989

homeopath can lead to the harm of not

1147

00:51:56,120 --> 00:51:54,529

yes this is where you might need yeah

1148

00:51:57,440 --> 00:51:56,130

but I think some of the time you can

1149

00:52:00,470 --> 00:51:57,450

still make an argument that they'd be

1150

00:52:02,990 --> 00:52:00,480

better off not being treated there's so

1151
00:52:04,190 --> 00:52:03,000
many examples it just has to be some of

1152
00:52:05,990 --> 00:52:04,200
the figures that come out when you look

1153
00:52:10,220 --> 00:52:06,000
into these things when you look at the

1154
00:52:14,390 --> 00:52:10,230
harm done in hospitals the deaths call

1155
00:52:18,440 --> 00:52:14,400
unnecessary deaths the deaths caused by

1156
00:52:21,140 --> 00:52:18,450
medical error medication errors all

1157
00:52:23,150 --> 00:52:21,150
sorts it's huge numbers that we're

1158
00:52:25,279 --> 00:52:23,160
looking at absolutely huge the studies

1159
00:52:30,499 --> 00:52:25,289
that were done out of Boston the studies

1160
00:52:32,779 --> 00:52:30,509
that were done here in in Australia it's

1161
00:52:35,900 --> 00:52:32,789
just the staggering how much have I need

1162
00:52:38,599 --> 00:52:35,910
to present this and the reaction to most

1163
00:52:40,640 --> 00:52:38,609

people is just well you know they will

1164

00:52:42,650 --> 00:52:40,650

probably stick anyway and it's you know

1165

00:52:47,059 --> 00:52:42,660

that's just you know good with the bad

1166

00:52:49,579 --> 00:52:47,069

and the canary in a very recent episode

1167

00:52:51,170 --> 00:52:49,589

of I have a segment called grain of salt

1168

00:52:53,539 --> 00:52:51,180

on the skeptics on podcast which were

1169

00:52:55,309 --> 00:52:53,549

recording for right now and in a recent

1170

00:52:56,630 --> 00:52:55,319

episode I actually spoke about that

1171

00:52:57,829 --> 00:52:56,640

statistical thing and I actually took a

1172

00:53:00,710 --> 00:52:57,839

different approach now I'd be interested

1173

00:53:02,089 --> 00:53:00,720

to hear how you would respond to that

1174

00:53:04,099 --> 00:53:02,099

because one of the things I said was

1175

00:53:08,539 --> 00:53:04,109

there's this number throwing about

1176

00:53:12,319 --> 00:53:08,549

18,000 people a year die of medical

1177

00:53:16,430 --> 00:53:12,329

error yeah what what I'd be interested

1178

00:53:18,349 --> 00:53:16,440

to to know and I didn't I was an actor I

1179

00:53:21,589 --> 00:53:18,359

wasn't actually able to find reliable

1180

00:53:25,160 --> 00:53:21,599

information is how many of these people

1181

00:53:26,870 --> 00:53:25,170

died because they were actually there

1182

00:53:28,730 --> 00:53:26,880

was some negligence involved that would

1183

00:53:31,579 --> 00:53:28,740

actually not they arrived at the

1184

00:53:33,289 --> 00:53:31,589

hospital healthy and or relatively

1185

00:53:35,870 --> 00:53:33,299

healthy would not would not have died

1186

00:53:38,779 --> 00:53:35,880

the other than through the fact that

1187

00:53:42,410 --> 00:53:38,789

they visited the hospital I think that's

1188

00:53:44,420 --> 00:53:42,420

a very important question to ask because

1189

00:53:46,039 --> 00:53:44,430

if you're talking about people who came

1190

00:53:48,859 --> 00:53:46,049

to a hospital and should have been saved

1191

00:53:50,329 --> 00:53:48,869

yeah but weren't yeah then that's a

1192

00:53:52,599 --> 00:53:50,339

completely different approach because

1193

00:53:54,440 --> 00:53:52,609

then you're comparing them to

1194

00:53:57,289 --> 00:53:54,450

alternative treatments that wouldn't

1195

00:54:01,510 --> 00:53:57,299

have helped them so yeah oh I think that

1196

00:54:05,780 --> 00:54:03,470

supposed to say hi or low because in

1197

00:54:08,240 --> 00:54:05,790

which way looking at but I think that

1198

00:54:11,359 --> 00:54:08,250

most people that present to a hospital

1199

00:54:14,390 --> 00:54:11,369

to give treated don't die vehicle death

1200

00:54:16,339 --> 00:54:14,400

rate in hospital isn't very high and so

1201
00:54:18,349 --> 00:54:16,349
I think most of those people that died

1202
00:54:20,570 --> 00:54:18,359
through medical error would not have

1203
00:54:21,770 --> 00:54:20,580
died anyway but I have to read the

1204
00:54:24,470 --> 00:54:21,780
studies again haven't read them for

1205
00:54:28,970 --> 00:54:24,480
years to look as it was broken down into

1206
00:54:33,170 --> 00:54:28,980
sort of actual sort of medication errors

1207
00:54:37,400 --> 00:54:33,180
and they had different categories of

1208
00:54:40,310 --> 00:54:37,410
adverse events but I see complications

1209
00:54:43,070 --> 00:54:40,320
all the time in the hospital it just

1210
00:54:45,140 --> 00:54:43,080
errors occur all the time but isn't

1211
00:54:46,609 --> 00:54:45,150
there the bias here okay I'll throw that

1212
00:54:49,580 --> 00:54:46,619
back at you because you look you look

1213
00:54:50,720 --> 00:54:49,590

you're a surgeon and I academic here you

1214

00:54:53,150 --> 00:54:50,730

look at things in terms of the

1215

00:54:55,880 --> 00:54:53,160

statistics side as well as the clinical

1216

00:54:57,890 --> 00:54:55,890

side and I'm just wondering you are the

1217

00:55:00,680 --> 00:54:57,900

hospital and you see those complications

1218

00:55:03,410 --> 00:55:00,690

could it be that you're a little bit

1219

00:55:04,880 --> 00:55:03,420

biased and just seeing seeing seeing the

1220

00:55:07,310 --> 00:55:04,890

complications I mean those patients just

1221

00:55:09,410 --> 00:55:07,320

go home a very small proportion actually

1222

00:55:14,120 --> 00:55:09,420

have complications i would assume these

1223

00:55:16,070 --> 00:55:14,130

days that first of all he's uh it

1224

00:55:23,500 --> 00:55:16,080

depends on kind of what area you're

1225

00:55:26,900 --> 00:55:23,510

looking at yeah complications are common

1226

00:55:30,170 --> 00:55:26,910

perhaps it's a question that should be

1227

00:55:33,380 --> 00:55:30,180

asked is because most complications that

1228

00:55:35,359 --> 00:55:33,390

I say aren't death there there are other

1229

00:55:37,780 --> 00:55:35,369

things where it's something wasn't fixed

1230

00:55:41,540 --> 00:55:37,790

properly and it needs to be redone and

1231

00:55:43,250 --> 00:55:41,550

you know they didn't use the right thing

1232

00:55:45,920 --> 00:55:43,260

here and now something else has to be

1233

00:55:47,510 --> 00:55:45,930

added to it or they neglected to give

1234

00:55:49,310 --> 00:55:47,520

them this medication and therefore they

1235

00:55:54,320 --> 00:55:49,320

got a problem the question there is

1236

00:55:56,810 --> 00:55:54,330

probably the so what factor because it's

1237

00:55:58,220 --> 00:55:56,820

interesting we worrying in orthopedic

1238

00:56:00,940 --> 00:55:58,230

trauma for insta I may be going off the

1239

00:56:04,220 --> 00:56:00,950

trachea so bring me back if if I am

1240

00:56:06,530 --> 00:56:04,230

fixing factors for instance we worry

1241

00:56:08,530 --> 00:56:06,540

about whether the bone heals or not okay

1242

00:56:11,329 --> 00:56:08,540

and so that's what we really hang out

1243

00:56:12,950 --> 00:56:11,339

our expertise on is we can get a bone to

1244

00:56:14,430 --> 00:56:12,960

heal and if we can't we consider that a

1245

00:56:16,020 --> 00:56:14,440

failure of treatment

1246

00:56:17,970 --> 00:56:16,030

and and a certain percentage of them

1247

00:56:20,280 --> 00:56:17,980

don't I mean if they're baby berrykin or

1248

00:56:22,680 --> 00:56:20,290

whatever and and one of our common

1249

00:56:27,000 --> 00:56:22,690

operations is to have to rio preto bones

1250

00:56:28,559 --> 00:56:27,010

to get them to hell and we consider that

1251

00:56:29,490 --> 00:56:28,569

a disaster that's a failure of treatment

1252

00:56:32,400 --> 00:56:29,500

the patients have to go to hospital

1253

00:56:35,490 --> 00:56:32,410

again they've had another procedure it's

1254

00:56:37,170 --> 00:56:35,500

it's quite a big deal and so we consider

1255

00:56:41,030 --> 00:56:37,180

that a bad thing and I think that should

1256

00:56:43,260 --> 00:56:41,040

be avoided however the patients don't

1257

00:56:44,190 --> 00:56:43,270

patients don't necessarily see that it's

1258

00:56:47,520 --> 00:56:44,200

a bad thing and I've done some

1259

00:56:49,500 --> 00:56:47,530

satisfaction surveys where the patient

1260

00:56:50,930 --> 00:56:49,510

satisfaction is completely unrelated to

1261

00:56:52,920 --> 00:56:50,940

whether they have a complication or not

1262

00:56:56,510 --> 00:56:52,930

or whether they need to have another

1263

00:56:58,950 --> 00:56:56,520

operation it's completely unrelated and

1264

00:57:00,930 --> 00:56:58,960

to give you an example if I had a

1265

00:57:03,780 --> 00:57:00,940

patient that I did an operational I

1266

00:57:06,809 --> 00:57:03,790

pinned their broken bone and the next

1267

00:57:08,339 --> 00:57:06,819

day I saw them and their leg was twisted

1268

00:57:10,349 --> 00:57:08,349

and it was in the wrong position and I

1269

00:57:12,030 --> 00:57:10,359

had done the operation incorrectly and

1270

00:57:14,220 --> 00:57:12,040

they had to go back and have another

1271

00:57:16,559 --> 00:57:14,230

operation to redo it now that's an

1272

00:57:18,750 --> 00:57:16,569

adverse event in any person's book it's

1273

00:57:21,599 --> 00:57:18,760

a complication you may even call it

1274

00:57:24,059 --> 00:57:21,609

negligence or not you know no attention

1275

00:57:25,680 --> 00:57:24,069

to detail but it's a bad result and it's

1276

00:57:31,440 --> 00:57:25,690

required another operation for the

1277

00:57:33,150 --> 00:57:31,450

patient however by and large patients it

1278

00:57:36,690 --> 00:57:33,160

will be very good about things like that

1279

00:57:39,359 --> 00:57:36,700

so if I say to the patient look we've

1280

00:57:40,800 --> 00:57:39,369

done your operation and he bones has

1281

00:57:42,300 --> 00:57:40,810

been stabilized but if you look at your

1282

00:57:43,950 --> 00:57:42,310

feet here if I just explained to you you

1283

00:57:46,079 --> 00:57:43,960

can see there's some malalignment it's

1284

00:57:47,460 --> 00:57:46,089

not it's not quite right and I think

1285

00:57:49,140 --> 00:57:47,470

that that should be corrected and in

1286

00:57:51,329 --> 00:57:49,150

fact the x-rays show that it's out by a

1287

00:57:53,550 --> 00:57:51,339

considerable amount and what I'd like to

1288

00:57:55,980 --> 00:57:53,560

do is take you back we operate on you

1289

00:57:59,700 --> 00:57:55,990

again and I'm very sorry this has had to

1290

00:58:01,440 --> 00:57:59,710

happen but it has and and what I'd like

1291

00:58:03,780 --> 00:58:01,450

to do is remove some of the screws

1292

00:58:06,990 --> 00:58:03,790

realign your leg and reinsert the screws

1293

00:58:09,120 --> 00:58:07,000

again in a better position and we can do

1294

00:58:11,430 --> 00:58:09,130

that for you as soon as we can we'll

1295

00:58:13,079 --> 00:58:11,440

book it for tomorrow morning and but you

1296

00:58:14,099 --> 00:58:13,089

a little menu in hospital for couple of

1297

00:58:17,430 --> 00:58:14,109

extra days and you do have to have

1298

00:58:19,309 --> 00:58:17,440

another operation but most patients are

1299

00:58:23,250 --> 00:58:19,319

find a better they really don't mind

1300

00:58:25,710 --> 00:58:23,260

which is interesting you know so when is

1301

00:58:28,480 --> 00:58:25,720

a complication a bad thing

1302

00:58:30,010 --> 00:58:28,490

most patients are happy with that result

1303

00:58:33,700 --> 00:58:30,020

and they will leave the hospital

1304

00:58:37,570 --> 00:58:33,710

satisfied however if they get a good

1305

00:58:40,090 --> 00:58:37,580

operation and I'm rude to them or I

1306

00:58:42,040 --> 00:58:40,100

don't see them afterwards I don't answer

1307

00:58:43,780 --> 00:58:42,050

their questions properly on dismissive

1308

00:58:45,370 --> 00:58:43,790

of them they will be completely

1309

00:58:47,350 --> 00:58:45,380

dissatisfied that will be dissatisfied

1310

00:58:49,260 --> 00:58:47,360

with the operation with the results of

1311

00:58:51,820 --> 00:58:49,270

the operation with the look of their leg

1312

00:58:55,110 --> 00:58:51,830

with the the scar that will be

1313

00:58:57,340 --> 00:58:55,120

dissatisfied with the whole procedure

1314

00:58:59,560 --> 00:58:57,350

whereas the other patient who's now got

1315

00:59:01,360 --> 00:58:59,570

two scars may be completely satisfied

1316

00:59:03,160 --> 00:59:01,370

look at how well those two scars healed

1317

00:59:05,860 --> 00:59:03,170

up and the doctor was really nice to me

1318

00:59:09,310 --> 00:59:05,870

so it's interesting about complications

1319

00:59:13,480 --> 00:59:09,320

so that's why we probably have to bring

1320

00:59:16,840 --> 00:59:13,490

it to more objective things like death

1321

00:59:18,970 --> 00:59:16,850

yeah well Beth is absolutely objective

1322

00:59:20,500 --> 00:59:18,980

but also and I think in that respect

1323

00:59:21,880 --> 00:59:20,510

probably should probably look at life

1324

00:59:24,670 --> 00:59:21,890

expectancy and I think one of the things

1325

00:59:29,230 --> 00:59:24,680

that to me are the clear indications of

1326
00:59:31,150 --> 00:59:29,240
the success of medical science is the

1327
00:59:34,740 --> 00:59:31,160
difference in life expectancy between

1328
00:59:36,790 --> 00:59:34,750
places that to have a disagreement I

1329
00:59:40,650 --> 00:59:36,800
disagree that the difference in life

1330
00:59:43,120 --> 00:59:40,660
expectancy is due to medical science I

1331
00:59:45,730 --> 00:59:43,130
that's been looked at and in some

1332
00:59:47,650 --> 00:59:45,740
studies they say that probably the

1333
00:59:50,260 --> 00:59:47,660
proportion of the difference in life

1334
00:59:52,780 --> 00:59:50,270
expectancy due to medical technology and

1335
01:00:00,960 --> 00:59:52,790
medical science is may be of the order

1336
01:00:08,500 --> 01:00:04,780
nutrition clean drinking water a good

1337
01:00:11,440 --> 01:00:08,510
food healthy lifestyle that kind of

1338
01:00:14,290 --> 01:00:11,450

thing rather than through the heart

1339

01:00:16,960 --> 01:00:14,300

bypass is in China a good example of not

1340

01:00:19,030 --> 01:00:16,970

because in China the main difference is

1341

01:00:21,820 --> 01:00:19,040

actually not there's increased

1342

01:00:23,440 --> 01:00:21,830

organization probably a life that's a

1343

01:00:25,330 --> 01:00:23,450

little bit less healthy we're going to

1344

01:00:28,840 --> 01:00:25,340

show me something on you we keep talking

1345

01:00:31,510 --> 01:00:28,850

I'll show you something here okay just

1346

01:00:33,010 --> 01:00:31,520

should probably tell listeners that ian

1347

01:00:35,290 --> 01:00:33,020

has just pulled out his laptop he's

1348

01:00:36,359 --> 01:00:35,300

looking for us some information there

1349

01:00:38,370 --> 01:00:36,369

I've done you

1350

01:00:40,710 --> 01:00:38,380

the deepest type of research it's called

1351

01:00:43,680 --> 01:00:40,720

googling and what the information I

1352

01:00:46,440 --> 01:00:43,690

found was that things like clean water

1353

01:00:48,150 --> 01:00:46,450

or nutrition have not actually changed

1354

01:00:49,890 --> 01:00:48,160

dramatically in China over the past 50

1355

01:00:52,799 --> 01:00:49,900

years but what has changed penetration

1356

01:00:56,489 --> 01:00:52,809

of of Western medicine into rural areas

1357

01:00:58,890 --> 01:00:56,499

as well as the big cities and there was

1358

01:01:01,529 --> 01:00:58,900

a suggestion that that has significantly

1359

01:01:04,289 --> 01:01:01,539

contributor to find an example where it

1360

01:01:05,880 --> 01:01:04,299

hasn't happened oh ok it's easy to pick

1361

01:01:07,650 --> 01:01:05,890

somewhere where it has but there's the

1362

01:01:09,359 --> 01:01:07,660

change in life expectancy over the last

1363

01:01:12,210 --> 01:01:09,369

300 years could you describe the

1364

01:01:14,849 --> 01:01:12,220

mathletes so the graph goes up from I

1365

01:01:17,700 --> 01:01:14,859

think that it's not exactly mark but are

1366

01:01:22,650 --> 01:01:17,710

under 40 so a life expectancy of under

1367

01:01:25,829 --> 01:01:22,660

40 in the year 1700 to pushing 80 around

1368

01:01:29,099 --> 01:01:25,839

San ladieswear dear 2000 yet but in a

1369

01:01:30,839 --> 01:01:29,109

way I I wish I could remember where I

1370

01:01:35,249 --> 01:01:30,849

got this from I think it's from the UK

1371

01:01:37,559 --> 01:01:35,259

actually elysees by the way that people

1372

01:01:40,529 --> 01:01:37,569

were not dropping off at the age of 38

1373

01:01:42,630 --> 01:01:40,539

in this joint I love dying young yes so

1374

01:01:44,069 --> 01:01:42,640

you're so dying at the age of 90 we were

1375

01:01:46,140 --> 01:01:44,079

also a lot more beer infant mortality

1376

01:01:49,319 --> 01:01:46,150

was very high and that skews the figures

1377

01:01:51,299 --> 01:01:49,329

a lot yeah but what you can see is that

1378

01:01:54,539 --> 01:01:51,309

ever so gradually the life expectancy

1379

01:01:57,150 --> 01:01:54,549

has increased over the last 300 years

1380

01:02:00,420 --> 01:01:57,160

and it's been increasing steadily and

1381

01:02:04,109 --> 01:02:00,430

it's probably plateaued more or less

1382

01:02:07,140 --> 01:02:04,119

compared to the rapid increase from 1702

1383

01:02:08,819 --> 01:02:07,150

1802 1900 and when we get to the ear of

1384

01:02:10,440 --> 01:02:08,829

modern medicine where medicine really

1385

01:02:12,359 --> 01:02:10,450

has actually made a difference I mean

1386

01:02:14,220 --> 01:02:12,369

you've got to be talking what not you

1387

01:02:17,789 --> 01:02:14,230

would say what nineteen fifty plus I

1388

01:02:20,880 --> 01:02:17,799

mean no real good surgery before before

1389

01:02:28,200 --> 01:02:20,890

then antibiotics not until nineteen dr.

1390

01:02:30,900 --> 01:02:28,210

World War two paths and so yeah and

1391

01:02:33,809 --> 01:02:30,910

that's when the that's the tail end of

1392

01:02:36,029 --> 01:02:33,819

it and so to attribute the changing life

1393

01:02:38,279 --> 01:02:36,039

expectancy from 40 to 80 over the last

1394

01:02:41,819 --> 01:02:38,289

three hundred years to a few medical

1395

01:02:45,620 --> 01:02:41,829

advances in the last 50 s probably

1396

01:02:48,550 --> 01:02:45,630

drawing a longbow the other one is that

1397

01:02:50,590 --> 01:02:48,560

his antibiotics is often quoted

1398

01:02:52,540 --> 01:02:50,600

is the famous one well I'll show you

1399

01:02:54,430 --> 01:02:52,550

another trend a hundred year trend

1400

01:02:58,720 --> 01:02:54,440

showing the gradual decrease in

1401

01:03:02,980 --> 01:02:58,730

mortality steady gradual decrease over

1402

01:03:05,140 --> 01:03:02,990

time in waterfront on TV yeah and then

1403

01:03:07,150 --> 01:03:05,150

you mark on there where antibiotics were

1404

01:03:09,940 --> 01:03:07,160

introduced it made knows no knowledge to

1405

01:03:13,710 --> 01:03:09,950

it at all it was just about any rough

1406

01:03:19,840 --> 01:03:16,110

uninterruptible trained from them from

1407

01:03:23,500 --> 01:03:19,850

1902 about nineteen eighty yeah and then

1408

01:03:25,860 --> 01:03:23,510

actually going up a little bit but in

1409

01:03:29,020 --> 01:03:25,870

the middle of the 1900s when antibiotics

1410

01:03:31,630 --> 01:03:29,030

for TB was introduced at the graph

1411

01:03:37,930 --> 01:03:31,640

continues in a linear fashion in the

1412

01:03:42,070 --> 01:03:37,940

same direction yeah okay we're almost

1413

01:03:45,520 --> 01:03:42,080

out of time mostly because the tape here

1414

01:03:47,140 --> 01:03:45,530

is about right now I swear we've enjoyed

1415

01:03:49,690 --> 01:03:47,150

the token we're talking for much longer

1416

01:03:52,120 --> 01:03:49,700

than I expected I want to go back to the

1417

01:03:53,860 --> 01:03:52,130

surgical studies good and something

1418

01:03:58,030 --> 01:03:53,870

something specific that you said earlier

1419

01:03:59,920 --> 01:03:58,040

to do with the throw scopic surgery for

1420

01:04:01,780 --> 01:03:59,930

the knees where you mentioned it's just

1421

01:04:03,400 --> 01:04:01,790

too little cuts not even stitches are

1422

01:04:07,270 --> 01:04:03,410

required but what do you do about things

1423

01:04:11,680 --> 01:04:07,280

that are either require a larger cut yes

1424

01:04:14,440 --> 01:04:11,690

or where the surgery is for a something

1425

01:04:16,030 --> 01:04:14,450

like open heart surgery you know like

1426
01:04:18,850 --> 01:04:16,040
these they're kind of things where you

1427
01:04:20,440 --> 01:04:18,860
do not just open the chest cavity just

1428
01:04:21,550 --> 01:04:20,450
in order to design well I think they did

1429
01:04:24,550 --> 01:04:21,560
it I think there was a sham surgery

1430
01:04:27,640 --> 01:04:24,560
study done a long time ago on ligation

1431
01:04:31,210 --> 01:04:27,650
of the internal mammary artery which is

1432
01:04:33,280 --> 01:04:31,220
inside the chest it's an artery inside

1433
01:04:36,640 --> 01:04:33,290
the chest which runs along the chest

1434
01:04:40,060 --> 01:04:36,650
wall and the it doesn't run to the heart

1435
01:04:42,460 --> 01:04:40,070
but it's a branch of a vessel that comes

1436
01:04:44,800 --> 01:04:42,470
from the same origin the theory and

1437
01:04:47,710 --> 01:04:44,810
again biological plausibility fantastic

1438
01:04:50,260 --> 01:04:47,720

is this harder used to be ligated and by

1439

01:04:52,570 --> 01:04:50,270

ligating this artery and not having any

1440

01:04:54,730 --> 01:04:52,580

blood going down your chest wall it

1441

01:04:57,160 --> 01:04:54,740

would divert the blood and an extent to

1442

01:05:00,640 --> 01:04:57,170

your heart so more blood will be going

1443

01:05:02,180 --> 01:05:00,650

to the to the cardiac vessels rather

1444

01:05:04,090 --> 01:05:02,190

than to this other fairly useless

1445

01:05:06,890 --> 01:05:04,100

thistle and so they would like eight the

1446

01:05:08,870 --> 01:05:06,900

internal memory artery and was great

1447

01:05:12,560 --> 01:05:08,880

procedure it worked very well and was

1448

01:05:14,540 --> 01:05:12,570

accepted and widely used because her

1449

01:05:15,890 --> 01:05:14,550

biological plausibility and then they

1450

01:05:18,170 --> 01:05:15,900

did a randomized control trial where

1451
01:05:19,940 --> 01:05:18,180
they located the artery and half of them

1452
01:05:22,220 --> 01:05:19,950
and didn't locate in the other half and

1453
01:05:24,710 --> 01:05:22,230
they found no difference that's amazing

1454
01:05:27,260 --> 01:05:24,720
so when they say they didn't like gate I

1455
01:05:30,500 --> 01:05:27,270
know for example in certain treatments

1456
01:05:33,380 --> 01:05:30,510
for example certain types of infection

1457
01:05:35,840 --> 01:05:33,390
of fungal infections what you would do

1458
01:05:38,450 --> 01:05:35,850
is my wife used to work in clinical

1459
01:05:41,060 --> 01:05:38,460
studies and she worked in this study

1460
01:05:47,000 --> 01:05:41,070
where they compared a new treatment new

1461
01:05:50,510 --> 01:05:47,010
drug for fungal infections that the

1462
01:05:52,670 --> 01:05:50,520
control was not was not placebo the

1463
01:05:55,100 --> 01:05:52,680

control was this standard best treatment

1464

01:05:56,420 --> 01:05:55,110

of the day I'm just wondering about

1465

01:05:57,980 --> 01:05:56,430

something like this whether it's quite

1466

01:05:59,930 --> 01:05:57,990

radical you opened the chest cavity

1467

01:06:03,620 --> 01:05:59,940

those it's an into significant injury

1468

01:06:05,300 --> 01:06:03,630

which takes a long time to heal do you

1469

01:06:06,770 --> 01:06:05,310

actually then do something else so you

1470

01:06:10,880 --> 01:06:06,780

just opened the chest cavity and then

1471

01:06:12,950 --> 01:06:10,890

dunno that's it that's it don't do

1472

01:06:14,510 --> 01:06:12,960

anything else you got to be careful of

1473

01:06:17,390 --> 01:06:14,520

using the gold standard there's a kind

1474

01:06:19,820 --> 01:06:17,400

of a creeping error that gets into this

1475

01:06:21,290 --> 01:06:19,830

because something gets tested and or

1476

01:06:23,660 --> 01:06:21,300

doesn't get tested it's just standard

1477

01:06:25,160 --> 01:06:23,670

practice and then something else gets

1478

01:06:27,320 --> 01:06:25,170

tested against that because it's the

1479

01:06:29,840 --> 01:06:27,330

gold standard and it's found to be just

1480

01:06:31,220 --> 01:06:29,850

as good or slightly better and then

1481

01:06:32,960 --> 01:06:31,230

something else gets tested against that

1482

01:06:34,820 --> 01:06:32,970

new gold standard more sudden we've got

1483

01:06:36,200 --> 01:06:34,830

something that's absolutely fantastic

1484

01:06:40,330 --> 01:06:36,210

but probably if you tested against the

1485

01:06:44,120 --> 01:06:40,340

share it may not be that beneficial but

1486

01:06:47,570 --> 01:06:44,130

in you don't have to do a sham trial

1487

01:06:50,450 --> 01:06:47,580

recently they did a great study in

1488

01:06:52,430 --> 01:06:50,460

surgery looking at appendicectomy and

1489

01:06:56,270 --> 01:06:52,440

still today if you present to a hospital

1490

01:06:58,790 --> 01:06:56,280

in Sydney with pain and signs consistent

1491

01:07:00,530 --> 01:06:58,800

with appendicitis you will have your

1492

01:07:02,180 --> 01:07:00,540

appendix removed and you will have it

1493

01:07:05,720 --> 01:07:02,190

removed as a matter of some degree of

1494

01:07:07,070 --> 01:07:05,730

urgency and yet a randomized control

1495

01:07:09,830 --> 01:07:07,080

trial published in the British general

1496

01:07:12,390 --> 01:07:09,840

surgery this year randomizing patients

1497

01:07:16,600 --> 01:07:12,400

to surgery or antibiotics

1498

01:07:18,790 --> 01:07:16,610

showed in no difference in the treatment

1499

01:07:20,740 --> 01:07:18,800

between the two groups except that the

1500

01:07:22,300 --> 01:07:20,750

complication rate was higher in the

1501

01:07:23,920 --> 01:07:22,310

surgically treated group as you would

1502

01:07:25,660 --> 01:07:23,930

probably expect yeah because they get

1503

01:07:27,190 --> 01:07:25,670

adhesions all sorts of late

1504

01:07:28,840 --> 01:07:27,200

complications from having an operation

1505

01:07:31,150 --> 01:07:28,850

so you want to try and avoid so do as

1506

01:07:33,760 --> 01:07:31,160

much as possible there's so many areas

1507

01:07:35,410 --> 01:07:33,770

where surgery is just not done anymore

1508

01:07:37,840 --> 01:07:35,420

where it used to be done before is

1509

01:07:40,420 --> 01:07:37,850

standard as a trauma surgeon when I came

1510

01:07:43,000 --> 01:07:40,430

here every trauma patient that came in

1511

01:07:44,680 --> 01:07:43,010

that had a bleeding abdomen had their

1512

01:07:46,030 --> 01:07:44,690

abdomen open and had their spleen taken

1513

01:07:48,460 --> 01:07:46,040

out and their liver packed and

1514

01:07:50,710 --> 01:07:48,470

everything else done in now it's really

1515

01:07:52,360 --> 01:07:50,720

done you just leave them alone and they

1516

01:07:54,520 --> 01:07:52,370

tend to do fairly well and he sounds to

1517

01:07:55,780 --> 01:07:54,530

me like you like that optional you like

1518

01:07:57,130 --> 01:07:55,790

the fact that that's odee it's

1519

01:07:58,990 --> 01:07:57,140

progressing yeah well it's just

1520

01:08:03,370 --> 01:07:59,000

consistently I'm still waiting to be

1521

01:08:04,720 --> 01:08:03,380

shown the the study that shows oh this

1522

01:08:07,390 --> 01:08:04,730

operation we were doing actually was

1523

01:08:10,360 --> 01:08:07,400

good and I still haven't seen that study

1524

01:08:12,940 --> 01:08:10,370

I just keep seeing operations fall by

1525

01:08:14,710 --> 01:08:12,950

the wayside but then as new technology

1526

01:08:16,120 --> 01:08:14,720

come along new operations get introduced

1527

01:08:19,090 --> 01:08:16,130

without necessarily going through the

1528

01:08:21,220 --> 01:08:19,100

same oops but could that be because the

1529

01:08:22,510 --> 01:08:21,230

studies are conducted conducted in those

1530

01:08:24,970 --> 01:08:22,520

areas where there's a level of

1531

01:08:26,410 --> 01:08:24,980

uncertainty amongst the surgeons could

1532

01:08:27,610 --> 01:08:26,420

it be there's a certain bias down the

1533

01:08:29,560 --> 01:08:27,620

results you're saying you haven't seen a

1534

01:08:32,020 --> 01:08:29,570

successful trial but perhaps it's

1535

01:08:34,990 --> 01:08:32,030

because those miles that where it's

1536

01:08:38,320 --> 01:08:35,000

quite clear that to everybody involved

1537

01:08:40,240 --> 01:08:38,330

there's benefits not just too few best

1538

01:08:43,420 --> 01:08:40,250

you just possibly I think that's a good

1539

01:08:45,100 --> 01:08:43,430

point but gee you know appendicitis

1540

01:08:46,960 --> 01:08:45,110

that's something where there's just no

1541

01:08:48,310 --> 01:08:46,970

argument I mean you ask any surgeon you

1542

01:08:51,460 --> 01:08:48,320

got a pen oh so take your pen Excel i

1543

01:08:53,530 --> 01:08:51,470

mean it's infected it will get worse and

1544

01:08:56,890 --> 01:08:53,540

it will rupture and it will mean it's

1545

01:09:02,050 --> 01:08:56,900

biological with you can't argue against

1546

01:09:03,370 --> 01:09:02,060

that and yet apparently you can but no I

1547

01:09:05,470 --> 01:09:03,380

don't think there's much uncertainty and

1548

01:09:10,000 --> 01:09:05,480

even with studies that show that surgery

1549

01:09:12,220 --> 01:09:10,010

is not necessarily required they're

1550

01:09:15,390 --> 01:09:12,230

still operate on them is the honda

1551

01:09:17,380 --> 01:09:15,400

studies done there's no uncertainty I

1552

01:09:18,880 --> 01:09:17,390

don't know it's something about being a

1553

01:09:20,890 --> 01:09:18,890

surgeon you have to be fairly certain

1554

01:09:21,990 --> 01:09:20,900

I've got things and you have to make

1555

01:09:25,200 --> 01:09:22,000

decisions as to

1556

01:09:30,570 --> 01:09:25,210

your hand must not shiver sure has not

1557

01:09:32,160 --> 01:09:30,580

steak we have to to end now in thank you

1558

01:09:36,390 --> 01:09:32,170

very much for being on the skeptic zone

1559

01:09:38,280 --> 01:09:36,400

and hopefully we'll have time to ask you

1560

01:09:41,820 --> 01:09:38,290

some more questions some other time what

1561

01:09:43,140 --> 01:09:41,830

does it thanks very much thank you after

1562

01:09:45,210 --> 01:09:43,150

listening to the interview while editing

1563

01:09:47,039 --> 01:09:45,220

it I realized that some issues that

1564

01:09:49,710 --> 01:09:47,049

would be important to most skeptics were

1565

01:09:51,120 --> 01:09:49,720

not covered so I contacted en again by

1566

01:09:54,510 --> 01:09:51,130

email and ask him to the following

1567

01:09:56,370 --> 01:09:54,520

questions one since you dispute that

1568

01:09:58,560 --> 01:09:56,380

scientific medicine is responsible for

1569

01:10:02,120 --> 01:09:58,570

the increase in life expectancy what

1570

01:10:05,370 --> 01:10:02,130

benefits has it provided to society to

1571

01:10:07,830 --> 01:10:05,380

similarly for antibiotics we saw it had

1572

01:10:09,540 --> 01:10:07,840

no effect on the decline in TB yet it is

1573

01:10:11,670 --> 01:10:09,550

common knowledge that antibiotics have

1574

01:10:14,160 --> 01:10:11,680

saved millions of lives is this common

1575

01:10:17,850 --> 01:10:14,170

knowledge wrong if it is what benefits

1576

01:10:20,550 --> 01:10:17,860

has antibiotics provided three we have

1577

01:10:21,930 --> 01:10:20,560

not discussed vaccines per se so could

1578

01:10:23,370 --> 01:10:21,940

you tell me what you think of the debate

1579

01:10:27,210 --> 01:10:23,380

about the efficacy and safety of

1580

01:10:29,070 --> 01:10:27,220

vaccines this was Ian's response the

1581

01:10:30,510 --> 01:10:29,080

benefit of society from medicine is an

1582

01:10:32,340 --> 01:10:30,520

interesting question taking out the

1583

01:10:34,020 --> 01:10:32,350

question of mortality the knee-jerk

1584

01:10:36,510 --> 01:10:34,030

response would be relief of suffering

1585

01:10:38,610 --> 01:10:36,520

from things such as joint replacement

1586

01:10:41,310 --> 01:10:38,620

surgery and even simple things like

1587

01:10:43,230 --> 01:10:41,320

painkillers and antidepressants it with

1588

01:10:44,490 --> 01:10:43,240

recent research showing the twenty-five

1589

01:10:46,830 --> 01:10:44,500

percent of Australian and knee

1590

01:10:48,270 --> 01:10:46,840

replacement recipients stating that they

1591

01:10:50,880 --> 01:10:48,280

would not have had the procedure given

1592

01:10:52,770 --> 01:10:50,890

their time over with now narcotic

1593

01:10:54,780 --> 01:10:52,780

analgesic complications and addiction

1594

01:10:56,430 --> 01:10:54,790

being such a problem and with recent

1595

01:10:58,440 --> 01:10:56,440

questions over the effectiveness of

1596

01:11:00,060 --> 01:10:58,450

antidepressants not to mention the

1597

01:11:02,130 --> 01:11:00,070

increase in suicide rates in younger

1598

01:11:05,040 --> 01:11:02,140

patients I am not sure how to answer

1599

01:11:06,830 --> 01:11:05,050

that question as always it comes down to

1600

01:11:09,180 --> 01:11:06,840

the balance between benefit and harm I

1601
01:11:11,610 --> 01:11:09,190
think their areas in medicine where

1602
01:11:13,470 --> 01:11:11,620
there is clear benefit examples would be

1603
01:11:15,600 --> 01:11:13,480
antibiotics for simple infections

1604
01:11:17,550 --> 01:11:15,610
anesthesia and simple analgesics and

1605
01:11:20,310 --> 01:11:17,560
immunization programs for conditions

1606
01:11:22,800 --> 01:11:20,320
like smallpox now eradicated polio and

1607
01:11:24,540 --> 01:11:22,810
measles but we must also accept that

1608
01:11:26,850 --> 01:11:24,550
their areas where medicine does little

1609
01:11:28,680 --> 01:11:26,860
good and actually does harm particularly

1610
01:11:31,380 --> 01:11:28,690
in my field of surgery as we discussed

1611
01:11:32,820 --> 01:11:31,390
an interesting perspective on this is

1612
01:11:35,090 --> 01:11:32,830
given by the Nobel Prize winning

1613
01:11:37,130 --> 01:11:35,100

economist Amartya Sen

1614

01:11:40,250 --> 01:11:37,140

his 2002 article in the british medical

1615

01:11:42,860 --> 01:11:40,260

journal titled health perception versus

1616

01:11:44,930 --> 01:11:42,870

observation he noted that the quality of

1617

01:11:47,240 --> 01:11:44,940

life is relative to what you are used to

1618

01:11:49,310 --> 01:11:47,250

and that people in the poorest parts of

1619

01:11:51,260 --> 01:11:49,320

india actually write their quality of

1620

01:11:53,810 --> 01:11:51,270

life as similar to those in better off

1621

01:11:56,030 --> 01:11:53,820

areas Carl Sagan asked a similar

1622

01:11:58,640 --> 01:11:56,040

question when you asked if we the human

1623

01:12:01,370 --> 01:11:58,650

race were any happier because of science

1624

01:12:03,260 --> 01:12:01,380

not just medicine are people happier

1625

01:12:05,270 --> 01:12:03,270

less stressed or more satisfied with

1626

01:12:08,990 --> 01:12:05,280

their lot than the average person 100

1627

01:12:12,260 --> 01:12:09,000

200 or 1000 years ago probably not is my

1628

01:12:13,940 --> 01:12:12,270

answer specifically about immunization I

1629

01:12:15,680 --> 01:12:13,950

think that this is one of those areas

1630

01:12:17,090 --> 01:12:15,690

where there is a perplexing and

1631

01:12:19,880 --> 01:12:17,100

disproportionate response to the

1632

01:12:21,770 --> 01:12:19,890

question of harm common immunisations of

1633

01:12:23,810 --> 01:12:21,780

children have a high benefit to risk

1634

01:12:26,180 --> 01:12:23,820

ratio but there is a strong reaction

1635

01:12:28,190 --> 01:12:26,190

against the potential harm at the cost

1636

01:12:30,530 --> 01:12:28,200

of ignoring the benefit this is

1637

01:12:32,690 --> 01:12:30,540

perplexing because if I raise the same

1638

01:12:34,820 --> 01:12:32,700

questions of something else topical like

1639

01:12:36,530 --> 01:12:34,830

cancer screening or surgery where there

1640

01:12:38,450 --> 01:12:36,540

is a real possibility of the harm while

1641

01:12:42,200 --> 01:12:38,460

wearing the benefits nobody wants to

1642

01:12:43,850 --> 01:12:42,210

know so this was Ian's response and I'd

1643

01:12:45,830 --> 01:12:43,860

like to thank Ian very much for the

1644

01:12:47,420 --> 01:12:45,840

extensive interview and for the amount

1645

01:12:50,420 --> 01:12:47,430

of time and thought he had given for the

1646

01:13:03,939 --> 01:12:59,310

you

1647

01:13:05,530 --> 01:13:03,949

episode of the skeptic zone don't forget

1648

01:13:07,959 --> 01:13:05,540

if you found that interview interesting

1649

01:13:11,140 --> 01:13:07,969

and I sure did please come to skeptics

1650

01:13:13,390 --> 01:13:11,150

own TV and let us know your comments

1651

01:13:16,120 --> 01:13:13,400

next week the full shows back again with

1652

01:13:19,060 --> 01:13:16,130

Stefan dr. Richie reports a grain of

1653

01:13:24,879 --> 01:13:19,070

salt and the think tank until then it's

1654

01:13:27,310 --> 01:13:24,889

goodbye from Richard Saunders you've

1655

01:13:31,930 --> 01:13:27,320

been listening to the skeptic zone visit

1656

01:13:34,390 --> 01:13:31,940

our website at wwc a petting zoo TV for

1657

01:13:36,710 --> 01:13:34,400

comments contacts and extra video

1658

01:13:51,090 --> 01:13:36,720

reports