

1
00:00:11,109 --> 00:00:13,138

I

2
00:00:20,588 --> 00:00:26,598
hello and welcome to the skeptic zone

3
00:00:23,268 --> 00:00:29,509
show number 52 for the 16th of oktober

4
00:00:26,599 --> 00:00:32,359
2009 Richard Saunders here with you

5
00:00:29,509 --> 00:00:34,189
today's episode of the skeptic zone is

6
00:00:32,359 --> 00:00:37,429
given over to an extensive interview

7
00:00:34,189 --> 00:00:40,459
with Professor Ian Harris by Iran so

8
00:00:37,429 --> 00:00:44,119
give this is a fascinating interview in

9
00:00:40,460 --> 00:00:46,158
Harris being an orthopedic surgeon Iran

10
00:00:44,119 --> 00:00:48,759
really gets to the nub of many important

11
00:00:46,158 --> 00:00:51,558
questions regarding our perception of

12
00:00:48,759 --> 00:00:53,718
modern medicine scientific medicine and

13
00:00:51,558 --> 00:00:56,268
I think you'll find Ian Harris's

14
00:00:53,719 --> 00:00:58,730
responses very interesting in fact I

15
00:00:56,268 --> 00:01:02,179
invite you after the show to click on

16
00:00:58,729 --> 00:01:04,698
the comments link at ww skeptics on TV

17
00:01:02,179 --> 00:01:07,549
and give us your thoughts about this

18
00:01:04,698 --> 00:01:09,379
interview before we start the interview

19
00:01:07,549 --> 00:01:11,118
and a quick announcement don't forget

20
00:01:09,379 --> 00:01:12,679
the Australian skeptics National

21
00:01:11,118 --> 00:01:14,709
Convention is going to be held at the

22
00:01:12,679 --> 00:01:17,359
end of november in brisbane australia

23
00:01:14,709 --> 00:01:20,769
please come along and see us or should

24
00:01:17,359 --> 00:01:25,099
be a great convention more details at ww

25
00:01:20,769 --> 00:01:26,658
skeptics come you and why you're at this

26
00:01:25,099 --> 00:01:29,089
skeptics website don't forget to

27
00:01:26,659 --> 00:01:33,320
subscribe to the skeptic the skeptic

28
00:01:29,090 --> 00:01:36,859
magazine from Australian skeptics ok sit

29

00:01:33,319 --> 00:01:38,508
back have a nice ginger beer yes have a

30
00:01:36,859 --> 00:01:41,478
nice cool drink of ginger beer and enjoy

31
00:01:38,509 --> 00:01:43,959
this interview with Ian Harris by Iran

32
00:01:41,478 --> 00:01:43,959
Segev

33
00:01:44,700 --> 00:01:46,759
you

34
00:01:53,359 --> 00:01:57,599
ian harris is a professor of orthopedic

35
00:01:56,280 --> 00:02:00,060
surgery at the University of New South

36
00:01:57,599 --> 00:02:02,419
Wales and the director of orthopaedic

37
00:02:00,060 --> 00:02:05,340
surgery at Liverpool Hospital in Sydney

38
00:02:02,420 --> 00:02:06,599
en has also studied epidemiology and is

39
00:02:05,340 --> 00:02:08,310
particularly interested in the

40
00:02:06,599 --> 00:02:11,310
assessment of the efficacy and safety of

41
00:02:08,310 --> 00:02:12,840
medical interventions I met Ian at his

42
00:02:11,310 --> 00:02:14,159
office in Liverpool Hospital to talk

43
00:02:12,840 --> 00:02:16,319

about how surgical techniques are

44

00:02:14,159 --> 00:02:18,120

assessed but ended up having a lot of

45

00:02:16,319 --> 00:02:21,090

what I thought were facts about medicine

46

00:02:18,120 --> 00:02:23,250

in general challenge so it's so in fact

47

00:02:21,090 --> 00:02:25,620

that if you really important issues had

48

00:02:23,250 --> 00:02:27,060

to be covered after the interview listen

49

00:02:25,620 --> 00:02:29,430

at the end of the interview for some

50

00:02:27,060 --> 00:02:34,530

more information but now here is

51

00:02:29,430 --> 00:02:35,760

Professor Ian Harris Professor Ian

52

00:02:34,530 --> 00:02:39,180

Harris thank you very much for joining

53

00:02:35,759 --> 00:02:40,620

us on skeptics on what further I would

54

00:02:39,180 --> 00:02:42,270

like to speak today about surgical

55

00:02:40,620 --> 00:02:45,450

techniques and how they might be

56

00:02:42,270 --> 00:02:48,330

verified we skeptical community will do

57

00:02:45,449 --> 00:02:51,719

by and large people will know about how

58
00:02:48,330 --> 00:02:53,520
double-blind tests are done on drugs but

59
00:02:51,719 --> 00:02:55,530
it doesn't seem like surgical techniques

60
00:02:53,520 --> 00:03:00,390
necessarily lend themselves to this kind

61
00:02:55,530 --> 00:03:02,939
of study so very strict and that is a

62
00:03:00,389 --> 00:03:08,939
fact that can be used to the surgeons

63
00:03:02,939 --> 00:03:11,959
advantage by avoiding such trials the

64
00:03:08,939 --> 00:03:14,699
bottom line is that randomized trials

65
00:03:11,959 --> 00:03:18,000
can be done in surgery and are being

66
00:03:14,699 --> 00:03:20,099
done in surgery however there are

67
00:03:18,000 --> 00:03:22,289
logistical problems with randomized

68
00:03:20,099 --> 00:03:25,289
trials particularly when it comes to

69
00:03:22,289 --> 00:03:27,329
blinding although they've been some very

70
00:03:25,289 --> 00:03:30,959
interesting examples where that has been

71
00:03:27,330 --> 00:03:34,410
overcome with with interesting results

72
00:03:30,959 --> 00:03:38,370
and I recently published an article on

73
00:03:34,409 --> 00:03:41,519
the need to be doing sham surgery for

74
00:03:38,370 --> 00:03:45,120
such trials in the australia new zealand

75
00:03:41,519 --> 00:03:46,920
journal of surgery sham surgical trials

76
00:03:45,120 --> 00:03:48,810
have been done in the past whenever

77
00:03:46,919 --> 00:03:51,319
they've been done they've always shown

78
00:03:48,810 --> 00:03:53,659
that the surgery has been not effective

79
00:03:51,319 --> 00:03:57,180
and i think that there's a role for

80
00:03:53,659 --> 00:03:59,280
doing them whenever it's raised in the

81
00:03:57,180 --> 00:04:01,469
surgical community and you say we'll

82
00:03:59,280 --> 00:04:02,919
look you know we're unsure whether this

83
00:04:01,469 --> 00:04:05,979
technique is really

84
00:04:02,919 --> 00:04:08,949
beneficial we need to do a proper study

85
00:04:05,979 --> 00:04:12,009
where the patients are blinded and they

86

00:04:08,949 --> 00:04:13,899
undergo some kind of sham surgery the

87
00:04:12,009 --> 00:04:15,969
answer not only the knee-jerk response

88
00:04:13,900 --> 00:04:18,430
is that oh you can't do that it's

89
00:04:15,969 --> 00:04:23,439
unethical but there's a bit of confusion

90
00:04:18,430 --> 00:04:27,310
I think with the ethics there is the

91
00:04:23,439 --> 00:04:31,870
ethics of medical practice of treating

92
00:04:27,310 --> 00:04:33,819
patients and and biologic surgery one of

93
00:04:31,870 --> 00:04:38,709
the codes that we live by is to do no

94
00:04:33,819 --> 00:04:42,040
harm so when in doubt you know we try

95
00:04:38,709 --> 00:04:45,939
and avoid harming the patient in any way

96
00:04:42,040 --> 00:04:50,740
and so on the surface of it to do a sham

97
00:04:45,939 --> 00:04:52,810
operation is in some way exposing

98
00:04:50,740 --> 00:04:55,629
patients to risk all those sham

99
00:04:52,810 --> 00:04:59,019
operations can be done in such a way

100
00:04:55,629 --> 00:05:01,209

there's quite a low risk but you're

101

00:04:59,019 --> 00:05:04,839

exposing the patient to some degree of

102

00:05:01,209 --> 00:05:09,430

risk and yet not offering them any real

103

00:05:04,839 --> 00:05:11,739

tangible benefit and so it appears that

104

00:05:09,430 --> 00:05:15,879

a sham surgical trial goes against the

105

00:05:11,740 --> 00:05:19,240

ethics of medical practice however it

106

00:05:15,879 --> 00:05:25,329

does satisfy the ethics of scientific

107

00:05:19,240 --> 00:05:30,038

investigation which is really to perform

108

00:05:25,329 --> 00:05:33,909

the best possible unbiased study that we

109

00:05:30,038 --> 00:05:36,399

can in order to investigate something

110

00:05:33,910 --> 00:05:39,210

properly and it's well known and in the

111

00:05:36,399 --> 00:05:41,679

past it's always been the case that

112

00:05:39,209 --> 00:05:43,719

scientific investigations in medical

113

00:05:41,680 --> 00:05:46,900

devices and even drugs and things like

114

00:05:43,720 --> 00:05:49,300

that may involve some small degree of

115
00:05:46,899 --> 00:05:52,329
risk to patients without any tangible

116
00:05:49,300 --> 00:05:56,319
benefit and the ethics gets broader as

117
00:05:52,329 --> 00:05:58,859
well because epidemiologists will argue

118
00:05:56,319 --> 00:06:02,259
with surgeons saying that it is

119
00:05:58,860 --> 00:06:04,840
unethical to be operating on patients

120
00:06:02,259 --> 00:06:06,879
without randomized control trial

121
00:06:04,839 --> 00:06:08,788
evidence that what we do is beneficial

122
00:06:06,879 --> 00:06:11,319
so it's really turning it on its head

123
00:06:08,788 --> 00:06:12,899
the surgeons will say it's unethical to

124
00:06:11,319 --> 00:06:14,560
do a randomized trial and

125
00:06:12,899 --> 00:06:16,089
epidemiologists will say it's unethical

126
00:06:14,560 --> 00:06:22,000
to be operating without

127
00:06:16,089 --> 00:06:24,919
and I think that history supports the

128
00:06:22,000 --> 00:06:26,449
epidemiologists unfortunately and you

129
00:06:24,920 --> 00:06:31,009
have to believe me because I'm a surgeon

130
00:06:26,449 --> 00:06:35,329
saying that and because in the past so

131
00:06:31,009 --> 00:06:38,420
many operations have been shown to not

132
00:06:35,329 --> 00:06:42,769
be as helpful as we once thought they

133
00:06:38,420 --> 00:06:45,170
were through you know good studies that

134
00:06:42,769 --> 00:06:47,719
were done I mean Ava if i'm not mistaken

135
00:06:45,170 --> 00:06:50,180
in any case when a patient enters a

136
00:06:47,720 --> 00:06:52,340
study there this sign and informed

137
00:06:50,180 --> 00:06:54,350
consent in which they know that they

138
00:06:52,339 --> 00:06:56,810
might be subjected to sham surgery sure

139
00:06:54,350 --> 00:06:57,770
yeah so it's the patient is involved in

140
00:06:56,810 --> 00:07:00,500
the decision it's not like you

141
00:06:57,769 --> 00:07:02,120
inflicting harm on a patient who doesn't

142
00:07:00,500 --> 00:07:06,230
know what's happening we're definitely

143

00:07:02,120 --> 00:07:10,699
um and all the studies have properly

144
00:07:06,230 --> 00:07:13,640
informed consent that is vetted by an

145
00:07:10,699 --> 00:07:16,069
ethics committee the trouble is there's

146
00:07:13,639 --> 00:07:18,500
this knee-jerk response and and I sit on

147
00:07:16,069 --> 00:07:20,389
ethics committee here at the hospital if

148
00:07:18,500 --> 00:07:21,889
you say to people on ethics committee

149
00:07:20,389 --> 00:07:23,750
all we want to do a study involving sham

150
00:07:21,889 --> 00:07:25,279
surgery though we can't do that it's

151
00:07:23,750 --> 00:07:27,170
just the automatic responses well you

152
00:07:25,279 --> 00:07:28,849
can't do that that's just you kind of do

153
00:07:27,170 --> 00:07:31,490
it and but when you actually sit at

154
00:07:28,850 --> 00:07:33,860
explain it to people they can see the

155
00:07:31,490 --> 00:07:37,660
benefit of it the problem with the

156
00:07:33,860 --> 00:07:42,770
patient sign the consent is there's this

157
00:07:37,660 --> 00:07:44,210

presumption of the of therapy even

158

00:07:42,769 --> 00:07:45,740

though you can sit down and explain to

159

00:07:44,209 --> 00:07:47,689

patients what's going on they're

160

00:07:45,740 --> 00:07:50,449

assuming that because the doctor is

161

00:07:47,689 --> 00:07:55,639

treating them that they're providing it

162

00:07:50,449 --> 00:07:57,740

with some kind of benefit but but you're

163

00:07:55,639 --> 00:07:59,180

right we're in these sham surgery trials

164

00:07:57,740 --> 00:08:02,300

that is explained to the patients that

165

00:07:59,180 --> 00:08:04,310

you may be randomized to an arm of the

166

00:08:02,300 --> 00:08:08,569

study that will afford you know

167

00:08:04,310 --> 00:08:13,939

possibility of benefit and the benefit

168

00:08:08,569 --> 00:08:15,769

yeah yes yes yeah because we do have the

169

00:08:13,939 --> 00:08:17,360

placebo effect yeah that size it was

170

00:08:15,769 --> 00:08:18,889

definitely it'll yeah and that's the

171

00:08:17,360 --> 00:08:20,990

thing about surgery surgery has such a

172
00:08:18,889 --> 00:08:23,089
strong pasiba effect so there's been

173
00:08:20,990 --> 00:08:25,259
studies which have some fascinating

174
00:08:23,089 --> 00:08:29,009
studies in medicine

175
00:08:25,259 --> 00:08:31,500
looking at the strength of the placebo

176
00:08:29,009 --> 00:08:36,659
effect so for instance if you're doing a

177
00:08:31,500 --> 00:08:41,129
trial and you deliberately make it known

178
00:08:36,659 --> 00:08:43,079
to the subjects that the drug they're

179
00:08:41,129 --> 00:08:45,090
receiving is or make them believe that

180
00:08:43,080 --> 00:08:47,240
the drug that they're receiving is very

181
00:08:45,090 --> 00:08:50,790
expensive you will get a much better

182
00:08:47,240 --> 00:08:52,409
placebo effect then if they think

183
00:08:50,789 --> 00:08:54,240
they're getting a cheap drug or an old

184
00:08:52,409 --> 00:08:56,819
drug you know I believe there's also a

185
00:08:54,240 --> 00:08:58,799
color effect if I member correctly I

186
00:08:56,820 --> 00:09:01,020
think it's the same even the same Smith

187
00:08:58,799 --> 00:09:05,099
and be the same study that showed that

188
00:09:01,019 --> 00:09:08,189
the color of the taking hello tablets

189
00:09:05,100 --> 00:09:10,320
actually has an effect as well yeah yeah

190
00:09:08,190 --> 00:09:13,260
and it's the end of the way it's sold to

191
00:09:10,320 --> 00:09:16,200
the patient as well so surgery has all

192
00:09:13,259 --> 00:09:20,539
the hallmarks of having a massive

193
00:09:16,200 --> 00:09:25,230
bow effect it's got a huge investment in

194
00:09:20,539 --> 00:09:28,319
trust cost time risk everything from the

195
00:09:25,230 --> 00:09:29,850
patient to go ahead with this they have

196
00:09:28,320 --> 00:09:31,740
to go through a lot of procedures before

197
00:09:29,850 --> 00:09:34,830
they even get to the hospital sign a lot

198
00:09:31,740 --> 00:09:38,100
of forms consent forms this is a big

199
00:09:34,830 --> 00:09:40,620
operation you're having done and then

200

00:09:38,100 --> 00:09:41,730
they go to this institution this

201
00:09:40,620 --> 00:09:43,560
hospital where they have to get

202
00:09:41,730 --> 00:09:46,550
undressed and change they get checked

203
00:09:43,559 --> 00:09:48,869
and double-checked they get needles

204
00:09:46,549 --> 00:09:52,529
injections they have a huge cut they

205
00:09:48,870 --> 00:09:55,529
have drips afterwards and it's a hell of

206
00:09:52,529 --> 00:09:57,539
a big procedure to go through and so I

207
00:09:55,529 --> 00:09:59,399
think their mind must be telling them

208
00:09:57,539 --> 00:10:02,219
they better get some benefit out of this

209
00:09:59,399 --> 00:10:05,329
you know there must be some kind of yeah

210
00:10:02,220 --> 00:10:07,830
why else would they do it you know and

211
00:10:05,330 --> 00:10:11,940
so you've really got to overcome that

212
00:10:07,830 --> 00:10:14,990
but you know I think we we need to do we

213
00:10:11,940 --> 00:10:19,410
need to do more studies in in surgery

214
00:10:14,990 --> 00:10:23,430

with a sham well I once they won such a

215

00:10:19,409 --> 00:10:25,250

sham surgery based study that I seem to

216

00:10:23,429 --> 00:10:28,379

recall it has to do with them

217

00:10:25,250 --> 00:10:30,509

arthroscopic surgery for the knees that

218

00:10:28,379 --> 00:10:31,799

was a great study this was a that was

219

00:10:30,509 --> 00:10:33,360

reported in the

220

00:10:31,799 --> 00:10:37,169

New England Journal of Medicine a few

221

00:10:33,360 --> 00:10:40,610

years ago and what they did is they took

222

00:10:37,169 --> 00:10:44,939

a whole bunch of patients who had

223

00:10:40,610 --> 00:10:46,139

mechanical problems with their knees and

224

00:10:44,940 --> 00:10:48,390

I think these were older patients I

225

00:10:46,139 --> 00:10:53,578

think it was a Veterans Affairs study in

226

00:10:48,389 --> 00:10:56,549

the US and they had symptoms which would

227

00:10:53,578 --> 00:11:01,769

often result in having an arthroscopy

228

00:10:56,549 --> 00:11:04,370

done and and I think they may have had a

229
00:11:01,769 --> 00:11:06,720
background of osteoarthritis in the knee

230
00:11:04,370 --> 00:11:10,440
but with mechanical symptoms and the

231
00:11:06,720 --> 00:11:12,899
theory is that you operate on it you

232
00:11:10,440 --> 00:11:15,360
find irregularities in the knee or rough

233
00:11:12,899 --> 00:11:18,179
patches or torn cartilages and you take

234
00:11:15,360 --> 00:11:21,930
them out and that smooth things over and

235
00:11:18,179 --> 00:11:24,328
gets rid of their symptoms and so what

236
00:11:21,929 --> 00:11:28,049
they did is a study where the patients

237
00:11:24,328 --> 00:11:29,519
in the sham group actually got incisions

238
00:11:28,049 --> 00:11:32,939
in their knees and arthroscopy is a

239
00:11:29,519 --> 00:11:34,528
fairly it doesn't involve any stitches

240
00:11:32,940 --> 00:11:37,140
in fact it's just two small holes in the

241
00:11:34,528 --> 00:11:40,139
knee camera gets put in and you do it

242
00:11:37,139 --> 00:11:42,240
all remote so it's not a very invasive

243
00:11:40,139 --> 00:11:43,470
procedure so it's easy to do a sham on

244
00:11:42,240 --> 00:11:45,659
that you just have to make two little

245
00:11:43,470 --> 00:11:48,420
cuts without any stitches the infection

246
00:11:45,659 --> 00:11:51,389
rates extremely low for such a procedure

247
00:11:48,419 --> 00:11:54,860
it's not a really big procedure and I

248
00:11:51,389 --> 00:11:56,850
think that they offered some benefit

249
00:11:54,860 --> 00:11:58,320
theoretical benefit to the sham group

250
00:11:56,850 --> 00:11:59,278
because think they washed out the name

251
00:11:58,320 --> 00:12:02,480
but they didn't actually do an

252
00:11:59,278 --> 00:12:04,289
arthroscopic procedure on them and

253
00:12:02,480 --> 00:12:05,850
apparently there's a documentary on

254
00:12:04,289 --> 00:12:08,338
another discovery channel which I would

255
00:12:05,850 --> 00:12:12,269
love to see but I haven't seen it but it

256
00:12:08,339 --> 00:12:14,699
shows patients who have had they have

257

00:12:12,269 --> 00:12:17,069
been in a study and they're now playing

258
00:12:14,698 --> 00:12:19,169
soccer with their grandchildren and

259
00:12:17,070 --> 00:12:21,390
saying what a fantastic procedure it's

260
00:12:19,169 --> 00:12:25,349
been another way they were in the shower

261
00:12:21,389 --> 00:12:26,909
affair so but that study showed no

262
00:12:25,350 --> 00:12:30,589
difference in the outcome between the

263
00:12:26,909 --> 00:12:30,588
sham group and the arthroscopic group

264
00:12:31,039 --> 00:12:39,360
that study opens up a whole a lot of

265
00:12:35,789 --> 00:12:43,328
questions because that study I would say

266
00:12:39,360 --> 00:12:47,079
has not changed practice one bit

267
00:12:43,328 --> 00:12:49,198
and that is this just in Australia or

268
00:12:47,078 --> 00:12:53,498
what do you see that's worldwide

269
00:12:49,198 --> 00:12:56,438
worldwide here particularly where

270
00:12:53,499 --> 00:12:58,360
there's private medicine where there's

271
00:12:56,438 --> 00:13:00,698

an incentive to operate and there's an

272

00:12:58,360 --> 00:13:04,269

expectation from the patients to operate

273

00:13:00,698 --> 00:13:09,428

and it's a customer service environment

274

00:13:04,269 --> 00:13:11,709

so in the private sector in Australia a

275

00:13:09,428 --> 00:13:13,659

patient with some clicking and

276

00:13:11,708 --> 00:13:15,818

mechanical symptoms perhaps locking in

277

00:13:13,659 --> 00:13:18,068

their knee who presents to an orthopedic

278

00:13:15,818 --> 00:13:21,009

surgeon will expect to have an

279

00:13:18,068 --> 00:13:22,719

arthroscopy by and large they'll be

280

00:13:21,009 --> 00:13:26,379

referred there from their general

281

00:13:22,720 --> 00:13:28,178

practitioner for an arthroscopy the

282

00:13:26,379 --> 00:13:30,909

surgeon will not have much else to offer

283

00:13:28,178 --> 00:13:33,519

them except an arthroscopy because there

284

00:13:30,909 --> 00:13:35,169

aren't that many alternatives they

285

00:13:33,519 --> 00:13:37,419

probably would have had a course perhaps

286

00:13:35,169 --> 00:13:39,849
of physiotherapy or tried some

287

00:13:37,419 --> 00:13:42,009
anti-inflammatory tablets and so that's

288

00:13:39,850 --> 00:13:45,509
really it's really like go away I can't

289

00:13:42,009 --> 00:13:47,798
help you or we'll do an arthroscopy and

290

00:13:45,509 --> 00:13:50,139
I'm trying to take the side of the

291

00:13:47,798 --> 00:13:51,909
orthopedic surgeons here but go away I

292

00:13:50,139 --> 00:13:54,249
can't help you is not very good for your

293

00:13:51,909 --> 00:13:57,068
practice and the patient will go to the

294

00:13:54,249 --> 00:14:00,909
next orthopedic surgeon down the street

295

00:13:57,068 --> 00:14:03,368
and get there ought to be done so by and

296

00:14:00,909 --> 00:14:04,928
large they just get done well as long as

297

00:14:03,369 --> 00:14:07,569
nobody offers them homeopathy that's

298

00:14:04,928 --> 00:14:09,629
fine in this respect that we should

299

00:14:07,568 --> 00:14:12,849
probably ask you so so are you in a

300
00:14:09,629 --> 00:14:14,649
clinical surgeon as well also do do you

301
00:14:12,850 --> 00:14:17,139
operate all right as well as but you're

302
00:14:14,649 --> 00:14:19,659
also says clinical academic on your head

303
00:14:17,139 --> 00:14:21,579
so does that mean you conduct studies

304
00:14:19,659 --> 00:14:24,789
yeah this is to that so what kind of

305
00:14:21,578 --> 00:14:29,769
proportions of your day are roughly 5050

306
00:14:24,789 --> 00:14:31,958
so I started out as a medical training

307
00:14:29,769 --> 00:14:34,659
here in university of new south wales

308
00:14:31,958 --> 00:14:37,118
and then did orthopaedic training

309
00:14:34,659 --> 00:14:38,828
locally and then started practices

310
00:14:37,119 --> 00:14:41,048
norfolk surgeon in my area of interest

311
00:14:38,828 --> 00:14:43,539
is in orthopaedic trauma so it's mainly

312
00:14:41,048 --> 00:14:46,588
factors broken bones cutting a car

313
00:14:43,539 --> 00:14:50,558
accidents motorbikes things like that

314

00:14:46,589 --> 00:14:53,110
and I was happy doing that but unhappy

315
00:14:50,558 --> 00:14:56,889
with the science behind what we did

316
00:14:53,110 --> 00:15:00,610
particularly in surgery they also found

317
00:14:56,889 --> 00:15:02,860
that I had a poor understanding of the

318
00:15:00,610 --> 00:15:04,389
science behind my own understanding of

319
00:15:02,860 --> 00:15:06,249
the scientific method wasn't very good

320
00:15:04,389 --> 00:15:09,369
and it isn't taught very well in

321
00:15:06,249 --> 00:15:11,199
medicine so I tried to get an

322
00:15:09,369 --> 00:15:13,178
understanding from from mentors and

323
00:15:11,198 --> 00:15:15,969
other people who seem to be able to

324
00:15:13,178 --> 00:15:17,588
critically appraise the literature in a

325
00:15:15,970 --> 00:15:21,730
scientific manner so I tried to learn

326
00:15:17,589 --> 00:15:23,949
that so I eventually did some courses

327
00:15:21,730 --> 00:15:26,019
then this led me to to study clinical

328
00:15:23,948 --> 00:15:28,359

epidemiology which is basically you know

329

00:15:26,019 --> 00:15:33,068

evidence-based medicine the science

330

00:15:28,360 --> 00:15:36,360

behind the the the studies that we do

331

00:15:33,068 --> 00:15:38,798

and so I did a master's degree in

332

00:15:36,360 --> 00:15:41,168

clinical epidemiology at University of

333

00:15:38,798 --> 00:15:42,879

Sydney which is a fairly it's a very

334

00:15:41,168 --> 00:15:45,698

good course run by the school of public

335

00:15:42,879 --> 00:15:49,209

health fair and the people there are all

336

00:15:45,698 --> 00:15:52,088

good skeptics very very soundly

337

00:15:49,208 --> 00:15:56,349

scientifically based and then I did a

338

00:15:52,089 --> 00:15:59,169

PhD in in surgical outcomes at

339

00:15:56,350 --> 00:16:01,329

University of Sydney as well and then so

340

00:15:59,168 --> 00:16:04,528

that you do other research projects and

341

00:16:01,328 --> 00:16:08,409

now I have students working for me and

342

00:16:04,528 --> 00:16:11,470

and and so I split my time between the

343
00:16:08,409 --> 00:16:12,850
academic activities I'm employed by the

344
00:16:11,470 --> 00:16:14,798
university of new south wales and the

345
00:16:12,850 --> 00:16:16,509
clinical activities which is looking

346
00:16:14,798 --> 00:16:19,600
after patients that come into to this

347
00:16:16,509 --> 00:16:21,278
hospital and the two crossover we do

348
00:16:19,600 --> 00:16:24,149
studies on the patients that come in

349
00:16:21,278 --> 00:16:27,068
here have you found that having studied

350
00:16:24,149 --> 00:16:29,649
epidemiology and being much more aware

351
00:16:27,068 --> 00:16:31,238
of the scientific mahou the scientific

352
00:16:29,649 --> 00:16:32,918
method can inform the way you treat

353
00:16:31,239 --> 00:16:35,918
patients that changed your practice

354
00:16:32,918 --> 00:16:40,149
definitely yeah i was already always a

355
00:16:35,918 --> 00:16:44,048
little bit wary but i would be probably

356
00:16:40,149 --> 00:16:46,499
the most conservative one of the most

357
00:16:44,048 --> 00:16:50,009
conservative orthopaedic surgeons around

358
00:16:46,499 --> 00:16:51,999
so when I go to meetings I got a lot of

359
00:16:50,009 --> 00:16:55,839
clinical meetings and meetings with

360
00:16:51,999 --> 00:16:59,048
other surgeons things I would tend to

361
00:16:55,839 --> 00:17:02,259
take up one end of the spectrum which is

362
00:16:59,048 --> 00:17:04,898
the non-operative end whereas some other

363
00:17:02,259 --> 00:17:06,429
surgeons are there is a lot that it can

364
00:17:04,898 --> 00:17:07,719
be quite aggressive and operate on a lot

365
00:17:06,429 --> 00:17:10,240
of patience

366
00:17:07,720 --> 00:17:13,029
where I would not operate on them and

367
00:17:10,240 --> 00:17:17,859
that's because my interpretation of the

368
00:17:13,029 --> 00:17:20,048
evidence is such that I from my

369
00:17:17,859 --> 00:17:22,240
experience and from my understanding of

370
00:17:20,048 --> 00:17:25,599
the literature if there is not good

371

00:17:22,240 --> 00:17:28,929
evidence for a procedure then the

372
00:17:25,599 --> 00:17:33,038
procedure probably doesn't work whereas

373
00:17:28,929 --> 00:17:35,950
the ver default position is well we know

374
00:17:33,038 --> 00:17:38,440
from experience in my hands that this

375
00:17:35,950 --> 00:17:41,380
procedure works so until evidence comes

376
00:17:38,440 --> 00:17:43,330
out that shows me otherwise I'm going to

377
00:17:41,380 --> 00:17:46,480
continue doing it and this is what this

378
00:17:43,329 --> 00:17:50,139
is medicine for the last you know 100

379
00:17:46,480 --> 00:17:52,980
years or 200 years is that people you

380
00:17:50,140 --> 00:17:55,360
know right back to the 1800s when they

381
00:17:52,980 --> 00:17:58,450
were doing bloodletting in Venice

382
00:17:55,359 --> 00:17:59,859
section on everybody and they finally

383
00:17:58,450 --> 00:18:02,529
came out with the evidence that it

384
00:17:59,859 --> 00:18:05,349
didn't actually offer any benefit people

385
00:18:02,529 --> 00:18:07,569

still did it because that's what they

386

00:18:05,349 --> 00:18:10,449

did and they saw patients get better

387

00:18:07,569 --> 00:18:11,918

after they did it not realizing of

388

00:18:10,450 --> 00:18:15,730

course the patients tend to get better

389

00:18:11,919 --> 00:18:18,610

anyway other cases where surgery might

390

00:18:15,730 --> 00:18:20,200

be obvious where you think studies are

391

00:18:18,609 --> 00:18:21,939

not required we're gonna give you an

392

00:18:20,200 --> 00:18:23,860

example that I might think of yeah a

393

00:18:21,940 --> 00:18:27,100

broken bone that hasn't set properly

394

00:18:23,859 --> 00:18:28,928

yeah oh well this is my field and I

395

00:18:27,099 --> 00:18:33,908

think subconsciously this is what's

396

00:18:28,929 --> 00:18:36,370

drawing me to to my particular area of

397

00:18:33,909 --> 00:18:39,700

super specialty within medicine which is

398

00:18:36,369 --> 00:18:42,399

basically fixing broken bones because

399

00:18:39,700 --> 00:18:47,319

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

400
00:18:42,400 --> 00:18:50,710
white area however within this field

401
00:18:47,319 --> 00:18:53,678
this the evidence is still questionable

402
00:18:50,710 --> 00:18:54,970
for a lot of the things we do and I

403
00:18:53,679 --> 00:18:56,919
spend a lot of time arguing with

404
00:18:54,970 --> 00:19:01,600
patients who come to see me with it with

405
00:18:56,919 --> 00:19:02,740
a broken somewhere and the x-rays never

406
00:19:01,599 --> 00:19:04,240
looked perfect I mean if you treat it

407
00:19:02,740 --> 00:19:06,099
not operatively you still see the

408
00:19:04,240 --> 00:19:10,419
fracture and it's you know just roughly

409
00:19:06,099 --> 00:19:11,589
lined up which is fine and I better have

410
00:19:10,419 --> 00:19:13,780
to argue with the patients because

411
00:19:11,589 --> 00:19:16,569
there's this expectation the patients

412
00:19:13,779 --> 00:19:18,849
say to me but doctor how is it going to

413
00:19:16,569 --> 00:19:20,889
heal if you don't put it together you

414
00:19:18,849 --> 00:19:22,809
know if less you operate on it too

415
00:19:20,890 --> 00:19:25,630
put the bones together it will never

416
00:19:22,809 --> 00:19:27,519
heal this is the this is what we have to

417
00:19:25,630 --> 00:19:31,060
deal with this is the understanding of a

418
00:19:27,519 --> 00:19:32,410
lot of people and I have to go back to

419
00:19:31,059 --> 00:19:33,789
them to explain that bones have been

420
00:19:32,410 --> 00:19:36,190
healing for hundreds of millions of

421
00:19:33,789 --> 00:19:40,149
years without operations and quite

422
00:19:36,190 --> 00:19:42,700
successfully and evolution has has

423
00:19:40,150 --> 00:19:44,530
worked out over several billion years a

424
00:19:42,700 --> 00:19:47,140
way of making bones joined together

425
00:19:44,529 --> 00:19:49,869
which is quite unique and extremely

426
00:19:47,140 --> 00:19:52,780
involved and involving hundreds and

427
00:19:49,869 --> 00:19:57,189
thousands of mediator factors and

428

00:19:52,779 --> 00:20:00,819
proteins and local chemicals to make

429
00:19:57,190 --> 00:20:03,910
this process work when we operate on it

430
00:20:00,819 --> 00:20:06,429
we completely just remove all of those

431
00:20:03,910 --> 00:20:09,640
factors that are in there helping it

432
00:20:06,430 --> 00:20:11,259
heal and by large when we operate on

433
00:20:09,640 --> 00:20:13,540
things probably the chance of bands

434
00:20:11,259 --> 00:20:15,400
healing is lower one of the reasons we

435
00:20:13,539 --> 00:20:18,339
operate on bones is not to get them to

436
00:20:15,400 --> 00:20:21,340
heal when we operate its Norway to hold

437
00:20:18,339 --> 00:20:24,699
them in a position such that when they

438
00:20:21,339 --> 00:20:26,949
heal the function will be better so it's

439
00:20:24,700 --> 00:20:29,019
to deal with the functionality post post

440
00:20:26,950 --> 00:20:31,240
injury rather than with the healing

441
00:20:29,019 --> 00:20:33,549
process yeah that's a large part of it

442
00:20:31,240 --> 00:20:36,640

however there are examples where bones

443

00:20:33,549 --> 00:20:38,980

are very badly broken and they you can't

444

00:20:36,640 --> 00:20:40,660

control them you know classic example is

445

00:20:38,980 --> 00:20:44,019

probably the femur fracture so the thigh

446

00:20:40,660 --> 00:20:46,240

bone fracture is a good one forever

447

00:20:44,019 --> 00:20:47,740

they've been treated in traction and I

448

00:20:46,240 --> 00:20:50,069

remember at this hospital when I came

449

00:20:47,740 --> 00:20:52,450

here as a junior many many years ago

450

00:20:50,069 --> 00:20:54,759

there was a doctor still treating the

451

00:20:52,450 --> 00:20:56,740

retraction and in World War two and in

452

00:20:54,759 --> 00:20:59,109

the 50s and 60s there were whole wards

453

00:20:56,740 --> 00:21:04,150

full of young motorbike riders who were

454

00:20:59,109 --> 00:21:06,669

in traction for four months now they

455

00:21:04,150 --> 00:21:08,590

were healed and that hill satisfactorily

456

00:21:06,670 --> 00:21:10,240

they probably healed a lot of them

457
00:21:08,589 --> 00:21:12,099
healed with a bit of deformity so the

458
00:21:10,240 --> 00:21:13,779
hill a bit short and and slightly

459
00:21:12,099 --> 00:21:16,119
crooked and so people had a bit of a

460
00:21:13,779 --> 00:21:17,920
limp afterwards so I think our modern

461
00:21:16,119 --> 00:21:21,009
methods these days where we operate on

462
00:21:17,920 --> 00:21:22,870
them probably gets better function but

463
00:21:21,009 --> 00:21:24,879
the other thing is the imperative is

464
00:21:22,869 --> 00:21:27,789
that to leave every patient with a

465
00:21:24,880 --> 00:21:29,080
broken femur in hospital in traction for

466
00:21:27,789 --> 00:21:32,240
three months it's just not possible

467
00:21:29,079 --> 00:21:35,509
these days I mean that the cost

468
00:21:32,240 --> 00:21:38,390
to the hospitals the cost of the patient

469
00:21:35,509 --> 00:21:41,240
being out of work not being at home to

470
00:21:38,390 --> 00:21:42,650
look after their kids and everything to

471
00:21:41,240 --> 00:21:46,910
put some in a hospital for three months

472
00:21:42,650 --> 00:21:48,980
is unthinkable these days whereas it was

473
00:21:46,910 --> 00:21:51,340
just a matter of course in those days so

474
00:21:48,980 --> 00:21:53,480
we operate on every single thigh bone

475
00:21:51,339 --> 00:21:55,399
every single femur fracture that comes

476
00:21:53,480 --> 00:21:59,000
in and we fix them and they go home

477
00:21:55,400 --> 00:22:01,460
normally within a few days but we've

478
00:21:59,000 --> 00:22:02,420
increased the infection rate because of

479
00:22:01,460 --> 00:22:05,779
that because they never used to get

480
00:22:02,420 --> 00:22:07,550
infected so imagine with that yeah they

481
00:22:05,779 --> 00:22:10,910
always used to heal interaction here and

482
00:22:07,549 --> 00:22:14,569
they never got infected but they would

483
00:22:10,910 --> 00:22:16,519
have probably more residual deformity

484
00:22:14,569 --> 00:22:18,649
with that because it's difficult to

485

00:22:16,519 --> 00:22:20,089
control the alignment in traction it's

486
00:22:18,650 --> 00:22:24,530
easy to control the alignment when you

487
00:22:20,089 --> 00:22:28,609
put a big metal rod in there um so you

488
00:22:24,529 --> 00:22:33,440
know but but still the belief in surgery

489
00:22:28,609 --> 00:22:35,779
is so great amongst the people being

490
00:22:33,440 --> 00:22:37,820
operated on and the surgeons themselves

491
00:22:35,779 --> 00:22:39,829
and often have a bit of fun with the

492
00:22:37,819 --> 00:22:44,750
junior doctors when they come through to

493
00:22:39,829 --> 00:22:46,939
learn about orthopedics one big area of

494
00:22:44,750 --> 00:22:48,980
orthopedic surgery is the hip fractures

495
00:22:46,940 --> 00:22:52,549
in the elderly it's an extremely common

496
00:22:48,980 --> 00:22:54,380
condition and and most people have a

497
00:22:52,549 --> 00:22:56,119
grandmother or an RD or someone who's

498
00:22:54,380 --> 00:22:57,920
had a hip fracture and had a fixed or

499
00:22:56,119 --> 00:23:00,259

had it replaced or pinned or whatever

500

00:22:57,920 --> 00:23:03,410

it's very common we would do that

501

00:23:00,259 --> 00:23:08,089

operation every day in most hospitals in

502

00:23:03,410 --> 00:23:09,590

the world and they all undergo surgery

503

00:23:08,089 --> 00:23:13,599

whereas in the old days a lot of them

504

00:23:09,589 --> 00:23:16,849

were treated in traction or other ways

505

00:23:13,599 --> 00:23:18,500

but there's this belief that without

506

00:23:16,849 --> 00:23:23,359

surgery these patients are somehow

507

00:23:18,500 --> 00:23:25,819

doomed and there's an urgency associated

508

00:23:23,359 --> 00:23:27,709

with the operation and a lot of Surgeons

509

00:23:25,819 --> 00:23:30,470

believe that the patients have to be

510

00:23:27,710 --> 00:23:32,480

operated on immediately or within 24

511

00:23:30,470 --> 00:23:36,529

hours otherwise the mortality is

512

00:23:32,480 --> 00:23:39,049

unacceptable and if it's left wall in a

513

00:23:36,529 --> 00:23:42,139

few days then the patient's sort of you

514
00:23:39,049 --> 00:23:44,609
know deteriorate and it's it's really

515
00:23:42,140 --> 00:23:47,400
quite an emergency and often

516
00:23:44,609 --> 00:23:49,019
say to the junior doctors so what would

517
00:23:47,400 --> 00:23:51,179
happen if we treated this fracture not

518
00:23:49,019 --> 00:23:54,629
operatively if we treated it say in

519
00:23:51,179 --> 00:23:56,009
traction and they often kind of just

520
00:23:54,630 --> 00:23:58,410
laugh at me just think I'm having a joke

521
00:23:56,009 --> 00:23:59,789
and I go no I'm serious what would

522
00:23:58,410 --> 00:24:03,660
happen and they all the patient would

523
00:23:59,789 --> 00:24:06,539
die and I say well really what would

524
00:24:03,660 --> 00:24:09,240
they die off me and all they'd be

525
00:24:06,539 --> 00:24:13,200
immobilized in bed so they would get bed

526
00:24:09,240 --> 00:24:15,960
sores and pneumonia and urinary tract

527
00:24:13,200 --> 00:24:18,240
infections and terrible complications

528
00:24:15,960 --> 00:24:19,769
and they would the patients would

529
00:24:18,240 --> 00:24:22,019
deteriorate to such an extent they're

530
00:24:19,769 --> 00:24:24,960
elderly anyway in their reserves are as

531
00:24:22,019 --> 00:24:26,819
good and basically died the only

532
00:24:24,960 --> 00:24:29,490
randomized control trial has ever been

533
00:24:26,819 --> 00:24:32,399
done has done some time ago and it

534
00:24:29,490 --> 00:24:35,250
randomized patients to traction versus

535
00:24:32,400 --> 00:24:38,070
surgical fixation for hip fractures in

536
00:24:35,250 --> 00:24:39,779
elderly patients there was no difference

537
00:24:38,069 --> 00:24:42,539
in the mortality between the two groups

538
00:24:39,779 --> 00:24:43,798
and that's when it's quite obvious the

539
00:24:42,539 --> 00:24:46,200
difference would be quite obviously the

540
00:24:43,798 --> 00:24:48,779
patient yeah so it's not blinded it's

541
00:24:46,200 --> 00:24:50,548
yeah it's not it's not blinded is

542

00:24:48,779 --> 00:24:52,918
randomized in control it's I'm buying it

543
00:24:50,548 --> 00:24:54,210
yeah it's not blinded so you're going to

544
00:24:52,919 --> 00:24:56,160
be children operatively you're going to

545
00:24:54,210 --> 00:24:57,539
be treated operatively but there's no

546
00:24:56,160 --> 00:24:59,250
difference in the mortality you're no

547
00:24:57,539 --> 00:25:01,048
more likely to die if you get triggered

548
00:24:59,250 --> 00:25:03,660
on operatively then if you get treated

549
00:25:01,048 --> 00:25:05,429
operatively I need a few tell surgeons

550
00:25:03,660 --> 00:25:08,130
this they don't believe you most of them

551
00:25:05,429 --> 00:25:10,980
aren't even aware of the study that was

552
00:25:08,130 --> 00:25:12,480
done and the same thing with the urgency

553
00:25:10,980 --> 00:25:14,839
of the procedure if you look at the

554
00:25:12,480 --> 00:25:19,679
literature sign typically and if you

555
00:25:14,839 --> 00:25:21,539
control for the general condition of the

556
00:25:19,679 --> 00:25:23,460

patient there's really no difference if

557

00:25:21,539 --> 00:25:26,099

you operate on it within 12 hours or 24

558

00:25:23,460 --> 00:25:28,860

hours of 48 hours or probably 72 hours

559

00:25:26,099 --> 00:25:30,480

in fact that randomized control trial

560

00:25:28,859 --> 00:25:32,189

that I mentioned shows you that it's

561

00:25:30,480 --> 00:25:34,200

there's no difference in mortality if

562

00:25:32,190 --> 00:25:35,910

you never operate on them so it's hard

563

00:25:34,200 --> 00:25:37,440

to argue that you need to operate in a

564

00:25:35,910 --> 00:25:38,700

certain number of hours when we know

565

00:25:37,440 --> 00:25:42,150

that if you don't operate at all it

566

00:25:38,700 --> 00:25:44,900

doesn't make any difference and a lot of

567

00:25:42,150 --> 00:25:47,700

these studies tend to be biased because

568

00:25:44,900 --> 00:25:49,470

the patients that they're not controlled

569

00:25:47,700 --> 00:25:51,120

trials so the patient's you get operated

570

00:25:49,470 --> 00:25:53,700

on earlier of the fitter and healthier

571
00:25:51,119 --> 00:25:55,500
ones who are fit for the operation the

572
00:25:53,700 --> 00:25:57,110
patients who are medically unwell and

573
00:25:55,500 --> 00:26:01,170
need some work up

574
00:25:57,109 --> 00:26:02,279
transfusion or a pacemaker or something

575
00:26:01,170 --> 00:26:03,480
this they're the ones they go up wrote

576
00:26:02,279 --> 00:26:05,099
it on later and they're going to have a

577
00:26:03,480 --> 00:26:07,380
high mortality anyway because they're

578
00:26:05,099 --> 00:26:10,559
sicker so but good studies would

579
00:26:07,380 --> 00:26:12,390
actually look at yeah and the better

580
00:26:10,559 --> 00:26:15,379
studies that i slor' the variables and

581
00:26:12,390 --> 00:26:18,330
allow for this do not show this dramatic

582
00:26:15,380 --> 00:26:23,340
difference in mortality that the poorest

583
00:26:18,329 --> 00:26:27,059
studies show but unfortunately a lot of

584
00:26:23,339 --> 00:26:30,869
the people who are making the decisions

585
00:26:27,059 --> 00:26:36,179
about surgical treatment don't have the

586
00:26:30,869 --> 00:26:39,239
skills and the will to get to the bottom

587
00:26:36,180 --> 00:26:42,630
of the literature and you know I guess

588
00:26:39,240 --> 00:26:44,609
to be fair to them i mean there's data

589
00:26:42,630 --> 00:26:47,220
out there and how many medical articles

590
00:26:44,609 --> 00:26:49,109
are published every day and and in order

591
00:26:47,220 --> 00:26:52,740
to be a head of the medical literature

592
00:26:49,109 --> 00:26:54,659
you would have to read for you know 48

593
00:26:52,740 --> 00:26:55,890
hours a day or something just to just to

594
00:26:54,660 --> 00:26:58,259
stay on top of everything that's coming

595
00:26:55,890 --> 00:27:00,450
out but you know the evidence is there

596
00:26:58,259 --> 00:27:01,529
if you if you look for it and if you

597
00:27:00,450 --> 00:27:03,840
know where to look there's good

598
00:27:01,529 --> 00:27:06,210
summaries of the evidence Cochrane

599

00:27:03,839 --> 00:27:08,639
reviews and things like that which are

600
00:27:06,210 --> 00:27:11,069
which are very helpful so how do you

601
00:27:08,640 --> 00:27:13,259
change that culture of preferring

602
00:27:11,069 --> 00:27:16,289
clinical judgment of a science and

603
00:27:13,259 --> 00:27:19,740
studies that's a very good question

604
00:27:16,289 --> 00:27:23,460
because that's what we need to do we

605
00:27:19,740 --> 00:27:27,690
need to have the decision makers the the

606
00:27:23,460 --> 00:27:30,059
doctors basing their decisions on better

607
00:27:27,690 --> 00:27:33,690
science and have them able to interpret

608
00:27:30,059 --> 00:27:36,929
the data better okay the first answer

609
00:27:33,690 --> 00:27:41,730
that question is it is changing so a lot

610
00:27:36,930 --> 00:27:42,930
more people are savvy to the scientific

611
00:27:41,730 --> 00:27:45,569
side of things and evidence-based

612
00:27:42,930 --> 00:27:47,549
medicine and particularly for reasons

613
00:27:45,569 --> 00:27:51,419

I'm not sure of in the United States and

614

00:27:47,549 --> 00:27:54,930

Canada so in North America they're a lot

615

00:27:51,420 --> 00:27:57,360

more aware of these things and it has

616

00:27:54,930 --> 00:28:01,440

changed a lot in the last 10 to 20 years

617

00:27:57,359 --> 00:28:03,029

so it is changing what are we it's I

618

00:28:01,440 --> 00:28:04,559

would say the same thing for Australia

619

00:28:03,029 --> 00:28:08,579

in the UK other countries that can't

620

00:28:04,559 --> 00:28:10,500

really comment on but so what is that

621

00:28:08,579 --> 00:28:11,899

we're doing to make this change

622

00:28:10,500 --> 00:28:15,319

there's probably a little bit more

623

00:28:11,900 --> 00:28:19,430

emphasis on evidence-based medicine

624

00:28:15,319 --> 00:28:24,750

principles in undergraduate medicine

625

00:28:19,430 --> 00:28:27,180

it's it becomes a kind of

626

00:28:24,750 --> 00:28:28,589

self-propagating thing that people get

627

00:28:27,180 --> 00:28:32,490

interested in it and so they teach

628
00:28:28,589 --> 00:28:34,049
younger people about it and they become

629
00:28:32,490 --> 00:28:36,089
aware that this is the right way of

630
00:28:34,049 --> 00:28:39,419
seeing things and so they teach other

631
00:28:36,089 --> 00:28:43,289
people and it kind of spreads by

632
00:28:39,420 --> 00:28:46,980
influence and we've made an effort in

633
00:28:43,289 --> 00:28:50,190
the College of Surgeons in Australia now

634
00:28:46,980 --> 00:28:53,880
has a course which is run which is done

635
00:28:50,190 --> 00:28:56,519
by most young trainees which is a course

636
00:28:53,880 --> 00:28:58,140
that I'm involved in called the clear

637
00:28:56,519 --> 00:29:00,059
course which stands for critical

638
00:28:58,140 --> 00:29:03,540
literature evaluation and research which

639
00:29:00,059 --> 00:29:05,549
is basically just a two-day you know

640
00:29:03,539 --> 00:29:10,950
summary course about evidence-based

641
00:29:05,549 --> 00:29:13,069
medicine but I I do sometimes question

642
00:29:10,950 --> 00:29:20,279
the effectiveness of that course I think

643
00:29:13,069 --> 00:29:23,909
sometimes people will get really have

644
00:29:20,279 --> 00:29:25,470
their eyes opened by it and a very open

645
00:29:23,910 --> 00:29:26,610
to it and it changes their practice but

646
00:29:25,470 --> 00:29:29,039
some people just sit there and they're

647
00:29:26,609 --> 00:29:30,929
only doing the course because they have

648
00:29:29,039 --> 00:29:32,940
to get it ticked off on their CV or

649
00:29:30,930 --> 00:29:34,440
something like that and so it can be

650
00:29:32,940 --> 00:29:36,600
hard to get through to something what

651
00:29:34,440 --> 00:29:38,370
about you mentioned earlier the doctors

652
00:29:36,599 --> 00:29:40,559
are not actually trained very well in

653
00:29:38,369 --> 00:29:42,239
the scientific method while in medical

654
00:29:40,559 --> 00:29:44,490
school is that something that you

655
00:29:42,240 --> 00:29:48,089
believe can be changed or he's changing

656

00:29:44,490 --> 00:29:51,480
yeah I definitely can be changed I

657
00:29:48,089 --> 00:29:54,209
believe it is challenging but it's a bit

658
00:29:51,480 --> 00:29:57,809
hard to keep track of because I'm not

659
00:29:54,210 --> 00:30:00,569
directly involved in the course

660
00:29:57,809 --> 00:30:02,819
curriculum for undergraduate medicine

661
00:30:00,569 --> 00:30:05,579
and now particularly new south wales the

662
00:30:02,819 --> 00:30:10,649
last five years we've seen an extra one

663
00:30:05,579 --> 00:30:14,909
two three four five I think medical

664
00:30:10,650 --> 00:30:17,340
schools open up and I have no idea what

665
00:30:14,910 --> 00:30:18,480
they're teaching but there's so many you

666
00:30:17,339 --> 00:30:21,240
know when I went through there was only

667
00:30:18,480 --> 00:30:22,289
two medical schools and others until

668
00:30:21,240 --> 00:30:24,329
they must be up seven or eight in New

669
00:30:22,289 --> 00:30:26,819
South Wales but I assume that there

670
00:30:24,329 --> 00:30:29,298

there is a core curriculum for medicine

671

00:30:26,819 --> 00:30:31,678

in the rightful registration in yourself

672

00:30:29,298 --> 00:30:34,288

I'm not sure because I know that the

673

00:30:31,679 --> 00:30:37,169

course does vary a lot between the

674

00:30:34,288 --> 00:30:39,000

universities it varies quite a lot so

675

00:30:37,169 --> 00:30:41,309

I'm not sure whether there's a core

676

00:30:39,000 --> 00:30:43,200

curriculum I don't think it's like the

677

00:30:41,308 --> 00:30:45,898

HSC or anything about that where you

678

00:30:43,200 --> 00:30:48,870

have to cover cert things that's

679

00:30:45,898 --> 00:30:51,689

actually been scary because ain't nobody

680

00:30:48,869 --> 00:30:56,638

with Justin HSC would come near me with

681

00:30:51,690 --> 00:30:57,960

a knife well hopefully but all you have

682

00:30:56,638 --> 00:31:01,469

to get all you have to do to be

683

00:30:57,960 --> 00:31:03,380

registered just have a medical degree in

684

00:31:01,470 --> 00:31:06,720

order to get your medical degree

685
00:31:03,380 --> 00:31:08,159
accredited from the University so say

686
00:31:06,720 --> 00:31:10,620
for instance University of Western

687
00:31:08,159 --> 00:31:12,720
Sydney which has opened up recently they

688
00:31:10,619 --> 00:31:16,138
developed a medical course from the

689
00:31:12,720 --> 00:31:17,460
ground up now this is where it's not my

690
00:31:16,138 --> 00:31:18,778
area of expertise but I assume they

691
00:31:17,460 --> 00:31:24,808
would have had to have their medical

692
00:31:18,778 --> 00:31:27,690
course accredited and but what I can't

693
00:31:24,808 --> 00:31:30,480
tell you is what how stringent that is

694
00:31:27,690 --> 00:31:32,610
or what criteria there are to have a

695
00:31:30,480 --> 00:31:35,490
medical course accredited you'll be

696
00:31:32,609 --> 00:31:38,278
interesting to find out to find out who

697
00:31:35,490 --> 00:31:41,730
the accreditation but who the

698
00:31:38,278 --> 00:31:44,388
accreditation authority is who's who's

699
00:31:41,730 --> 00:31:46,769
on it and how they evaluate their

700
00:31:44,388 --> 00:31:48,148
courses if you Father let me know

701
00:31:46,769 --> 00:31:49,558
because it would be interested yeah well

702
00:31:48,148 --> 00:31:51,329
I think I think it's very interesting

703
00:31:49,558 --> 00:31:53,129
and it probably leads up to my next

704
00:31:51,329 --> 00:31:55,408
question which is to do with public

705
00:31:53,130 --> 00:31:57,179
demand one of the things that we as

706
00:31:55,409 --> 00:31:59,960
skeptics do is try to educate the public

707
00:31:57,179 --> 00:32:05,009
how to think critically and not take

708
00:31:59,960 --> 00:32:07,110
claims at face value and try to explain

709
00:32:05,009 --> 00:32:08,970
to people why while science is

710
00:32:07,109 --> 00:32:11,219
definitely not perfect it's the best

711
00:32:08,970 --> 00:32:13,169
best method we have of finding what's

712
00:32:11,220 --> 00:32:16,048
true and what's not true and of course

713

00:32:13,169 --> 00:32:19,100
it's very true in medicine scientific

714
00:32:16,048 --> 00:32:22,408
medicine and I'm wondering whether

715
00:32:19,099 --> 00:32:25,879
educating the public to demand of the

716
00:32:22,409 --> 00:32:28,799
doctors demand of the authorities that

717
00:32:25,880 --> 00:32:33,649
treatments are based on science would be

718
00:32:28,798 --> 00:32:37,859
a good approach yeah i agree i think the

719
00:32:33,648 --> 00:32:42,178
public should be educated better I don't

720
00:32:37,859 --> 00:32:43,740
know whether they should be able to look

721
00:32:42,179 --> 00:32:45,630
at some of the evidence themselves or

722
00:32:43,740 --> 00:32:47,159
have some kind of access to the evidence

723
00:32:45,630 --> 00:32:48,630
behind the procedure that's been

724
00:32:47,159 --> 00:32:51,720
recommended to them or the drug that's

725
00:32:48,630 --> 00:32:54,539
been prescribed to them I think if they

726
00:32:51,720 --> 00:32:56,069
ask the doctors then there will be a

727
00:32:54,538 --> 00:32:58,528

tendency to get around it by saying oh

728

00:32:56,069 --> 00:33:04,500

yes the evidence is very good here's the

729

00:32:58,528 --> 00:33:07,230

tablet because the the patient's ability

730

00:33:04,500 --> 00:33:11,579

to interpret the evidence might not be

731

00:33:07,230 --> 00:33:15,409

very good the doctor's ability to convey

732

00:33:11,579 --> 00:33:17,788

the relative merits and strengths of

733

00:33:15,409 --> 00:33:21,120

different studies to a patient might be

734

00:33:17,788 --> 00:33:22,408

very difficult so in essence it's going

735

00:33:21,119 --> 00:33:25,558

to come down to just trusting the

736

00:33:22,409 --> 00:33:27,120

doctor's opinion again probably oh you

737

00:33:25,558 --> 00:33:32,339

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

738

00:33:27,119 --> 00:33:34,798

actually not so sure that I would like

739

00:33:32,339 --> 00:33:38,038

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

740

00:33:34,798 --> 00:33:39,778

probably explain why that you know they

741

00:33:38,038 --> 00:33:44,460

always say half the population it has

742
00:33:39,778 --> 00:33:45,569
below-average intelligence but also half

743
00:33:44,460 --> 00:33:48,179
the population has above-average

744
00:33:45,569 --> 00:33:50,398
intelligence and half the population has

745
00:33:48,179 --> 00:33:51,840
above-average education levels and you

746
00:33:50,398 --> 00:33:54,000
don't have to educate a hundred percent

747
00:33:51,839 --> 00:33:55,439
of the population but you have if you

748
00:33:54,000 --> 00:33:57,388
have say twenty-five percent of our

749
00:33:55,440 --> 00:33:59,278
population who are able to understand

750
00:33:57,388 --> 00:34:01,918
what studies are all about and are able

751
00:33:59,278 --> 00:34:03,119
to ask the doctor what was the evidence

752
00:34:01,919 --> 00:34:06,629
for this treatment that you're

753
00:34:03,119 --> 00:34:08,969
recommending to me and what what are the

754
00:34:06,628 --> 00:34:11,519
risks what are the percentages get into

755
00:34:08,969 --> 00:34:13,469
it in detail that's an it you don't need

756
00:34:11,519 --> 00:34:15,358
a hundred percent to claim to require

757
00:34:13,469 --> 00:34:17,668
that if you have twenty twenty-five

758
00:34:15,358 --> 00:34:20,279
percent require that doctors will get in

759
00:34:17,668 --> 00:34:21,960
the habit of knowing yes it's not even

760
00:34:20,280 --> 00:34:23,909
about explaining it's about knowing the

761
00:34:21,960 --> 00:34:27,750
evidence yeah and they might actually

762
00:34:23,909 --> 00:34:28,648
get into a mode where they treat you

763
00:34:27,750 --> 00:34:30,659
know

764
00:34:28,648 --> 00:34:31,858
choose treatments based on evidence

765
00:34:30,659 --> 00:34:33,179
because they have to explain this to

766
00:34:31,858 --> 00:34:37,409
twenty twenty-five percent of their

767
00:34:33,179 --> 00:34:40,318
patients yeah I agree yeah I agree and

768
00:34:37,409 --> 00:34:42,419
if I go to the doctor or I take a family

769
00:34:40,318 --> 00:34:44,759
member to the doctor um I've asking the

770

00:34:42,418 --> 00:34:50,519
questions and i'm looking it up before I

771
00:34:44,760 --> 00:34:52,500
know so I have some experience with that

772
00:34:50,519 --> 00:34:58,380
but it's asking the right question as

773
00:34:52,500 --> 00:35:02,250
well I mean there's a lot of things out

774
00:34:58,380 --> 00:35:05,849
there that in medicine that there is

775
00:35:02,250 --> 00:35:09,269
evidence that they work for a certain

776
00:35:05,849 --> 00:35:13,769
outcome that they might have they then

777
00:35:09,269 --> 00:35:18,028
might not work overall so what are some

778
00:35:13,769 --> 00:35:23,179
of the classic examples classic example

779
00:35:18,028 --> 00:35:32,719
would probably be in surgery carotid

780
00:35:23,179 --> 00:35:37,500
bypass surgery for preventing strokes

781
00:35:32,719 --> 00:35:41,848
which was very popular in probably 20

782
00:35:37,500 --> 00:35:45,210
years ago or so and if you look at the

783
00:35:41,849 --> 00:35:47,220
evidence of whether it reduces the risk

784
00:35:45,210 --> 00:35:51,199

of stroke which is what you're

785

00:35:47,219 --> 00:35:54,078

interested in then it looked very good

786

00:35:51,199 --> 00:35:59,338

that's if you excluded the patients that

787

00:35:54,079 --> 00:36:02,190

died from the operation or perhaps had

788

00:35:59,338 --> 00:36:06,719

an early massive stroke things like that

789

00:36:02,190 --> 00:36:10,679

so in the end when you looked at it it

790

00:36:06,719 --> 00:36:11,730

it was probably worse off there isn't

791

00:36:10,679 --> 00:36:14,489

any way of looking at it though

792

00:36:11,730 --> 00:36:17,190

eliminating them exactly oh well it's

793

00:36:14,489 --> 00:36:18,449

the old thing of disease specific

794

00:36:17,190 --> 00:36:20,460

mortality and what is happening sorry

795

00:36:18,449 --> 00:36:21,808

this is a real epidemiological argument

796

00:36:20,460 --> 00:36:26,130

because if you look at a lot of

797

00:36:21,809 --> 00:36:29,690

treatments they are very good at

798

00:36:26,130 --> 00:36:32,190

reducing the disease specific mortality

799

00:36:29,690 --> 00:36:36,088

so if you've got a treatment from breast

800

00:36:32,190 --> 00:36:37,829

cancer say like radiotherapy I think if

801

00:36:36,088 --> 00:36:39,509

you look there has been studies done if

802

00:36:37,829 --> 00:36:40,800

you look at radiotherapy for breast

803

00:36:39,510 --> 00:36:44,160

cancer

804

00:36:40,800 --> 00:36:48,030

matically reduces the risk of dying from

805

00:36:44,159 --> 00:36:50,549

breast cancer and so that's it end of

806

00:36:48,030 --> 00:36:53,010

argument I mean it's just sounds like

807

00:36:50,550 --> 00:36:55,560

radiotherapy is carcinogenic in Sunrise

808

00:36:53,010 --> 00:36:58,170

exactly but it increases the risk of

809

00:36:55,559 --> 00:37:01,170

dying from other things and so the

810

00:36:58,170 --> 00:37:02,610

actual risk of death after 20 years with

811

00:37:01,170 --> 00:37:06,240

or without radiotherapy is probably not

812

00:37:02,610 --> 00:37:08,670

a lot different and same thing with this

813
00:37:06,239 --> 00:37:11,549
is the the debate that goes on with mass

814
00:37:08,670 --> 00:37:15,800
screening for things because it will

815
00:37:11,550 --> 00:37:15,800
reduce the disease specific mortality so

816
00:37:15,980 --> 00:37:22,710
mammograms for breast cancer which are

817
00:37:18,449 --> 00:37:25,049
being pushed in this state anyway and in

818
00:37:22,710 --> 00:37:27,570
a lot of places because it sounds good i

819
00:37:25,050 --> 00:37:29,970
always say this to my students if

820
00:37:27,570 --> 00:37:33,510
something sounds good if it sounds

821
00:37:29,969 --> 00:37:35,879
biologically plausible then i'd say odds

822
00:37:33,510 --> 00:37:38,490
are it's probably not true because you

823
00:37:35,880 --> 00:37:41,369
can make anything sound biologically

824
00:37:38,489 --> 00:37:43,349
plausible and whereas that's what we

825
00:37:41,369 --> 00:37:46,859
used to hang our hat on the old days was

826
00:37:43,349 --> 00:37:49,170
making a biologically you know argument

827

00:37:46,860 --> 00:37:50,579
for something to justify yourself now I

828
00:37:49,170 --> 00:37:52,889
think you can make a biological judge

829
00:37:50,579 --> 00:37:54,840
argument for just about anything and

830
00:37:52,889 --> 00:37:56,849
that's what people do and time and time

831
00:37:54,840 --> 00:38:00,780
again it gets shown to to be not the

832
00:37:56,849 --> 00:38:04,799
case I mean I can't believe how people

833
00:38:00,780 --> 00:38:09,440
are so adamant that mammography breast

834
00:38:04,800 --> 00:38:12,870
screening is is saving countless lives

835
00:38:09,440 --> 00:38:15,300
when you look at the evidence it's very

836
00:38:12,869 --> 00:38:16,559
questionable I mean there's there's a

837
00:38:15,300 --> 00:38:19,320
lot of debates written about this and

838
00:38:16,559 --> 00:38:21,750
the bmj studies of hundreds of thousands

839
00:38:19,320 --> 00:38:24,390
of patients randomized to mammography

840
00:38:21,750 --> 00:38:26,849
versus no mammography in Scandinavia

841
00:38:24,389 --> 00:38:28,920

think another one from Canada I think

842

00:38:26,849 --> 00:38:31,259

all of the studies have shown a decrease

843

00:38:28,920 --> 00:38:33,119

in disease specific mortality because

844

00:38:31,260 --> 00:38:34,910

you're diagnosing breast cancer in so

845

00:38:33,119 --> 00:38:40,619

many more people you're just not saving

846

00:38:34,909 --> 00:38:43,199

any lives so the risk of dying period in

847

00:38:40,619 --> 00:38:45,119

some of these studies were the same in

848

00:38:43,199 --> 00:38:48,029

both groups so that includes obviously a

849

00:38:45,119 --> 00:38:51,210

look at the life expectancy not just her

850

00:38:48,030 --> 00:38:53,880

yes yes we all die yes sir

851

00:38:51,210 --> 00:38:57,150

yeah but over a certain period of time

852

00:38:53,880 --> 00:39:00,539

the mortality was insane in one of the

853

00:38:57,150 --> 00:39:03,030

the Scandinavian studies the overall

854

00:39:00,539 --> 00:39:04,500

mortality in the time period looked at

855

00:39:03,030 --> 00:39:07,560

was actually higher in the mammography

856
00:39:04,500 --> 00:39:10,108
group than in the control group so you

857
00:39:07,559 --> 00:39:12,150
were less likely to die of breast cancer

858
00:39:10,108 --> 00:39:14,159
but you are more likely to know how

859
00:39:12,150 --> 00:39:18,809
could something like this be explained

860
00:39:14,159 --> 00:39:20,279
it doesn't seem doesn't seem to make

861
00:39:18,809 --> 00:39:23,429
sense because my mother if he's not even

862
00:39:20,280 --> 00:39:25,619
a treatment yeah well the theory is that

863
00:39:23,429 --> 00:39:27,118
well it's an interesting thing about the

864
00:39:25,619 --> 00:39:32,070
disease specific mortality because what

865
00:39:27,119 --> 00:39:36,150
it does is it probably over diagnosis so

866
00:39:32,070 --> 00:39:39,030
you're picking up the so-called breast

867
00:39:36,150 --> 00:39:42,630
cancer in patients that would never

868
00:39:39,030 --> 00:39:44,700
present would never normally be

869
00:39:42,630 --> 00:39:46,559
diagnosed with breast cancer maybe die

870
00:39:44,699 --> 00:39:48,539
or something else first maybe never get

871
00:39:46,559 --> 00:39:50,849
it to a stage where it's clinically

872
00:39:48,539 --> 00:39:53,639
apparent or causing them significant

873
00:39:50,849 --> 00:39:55,440
concern so in the mammography group the

874
00:39:53,639 --> 00:40:00,389
rate of breast cancer is going to be

875
00:39:55,440 --> 00:40:02,190
hugely higher so your disease specific

876
00:40:00,389 --> 00:40:03,659
mortality is going to be lower because

877
00:40:02,190 --> 00:40:06,088
the only people that died of breast

878
00:40:03,659 --> 00:40:08,598
cancer in the non mammography group are

879
00:40:06,088 --> 00:40:11,639
people that actually really have a

880
00:40:08,599 --> 00:40:14,670
cancer that's causing problems in their

881
00:40:11,639 --> 00:40:16,889
breasts whereas the other group the

882
00:40:14,670 --> 00:40:19,200
mortality may be the same but half of

883
00:40:16,889 --> 00:40:22,319
them been diagnosed with carcinoma in

884

00:40:19,199 --> 00:40:24,210
sight you or all these sort of new

885
00:40:22,320 --> 00:40:26,550
diagnoses which never used to be called

886
00:40:24,210 --> 00:40:28,470
cancer before or something like that so

887
00:40:26,550 --> 00:40:32,359
they let they lower the threshold of

888
00:40:28,469 --> 00:40:35,069
what is a cancer and of course lasering

889
00:40:32,358 --> 00:40:36,509
also it has done research on or he's

890
00:40:35,070 --> 00:40:38,880
doing research on monitoring

891
00:40:36,510 --> 00:40:42,180
specifically I think also specifically

892
00:40:38,880 --> 00:40:43,740
about prostate cancer at least that's

893
00:40:42,179 --> 00:40:45,719
one of the areas that he's looking into

894
00:40:43,739 --> 00:40:47,519
and I think the results are very clear

895
00:40:45,719 --> 00:40:50,669
there as well they're lit monitoring

896
00:40:47,519 --> 00:40:53,250
leads to overdiagnosis treatment yeah it

897
00:40:50,670 --> 00:40:55,139
does and there's also the psychological

898
00:40:53,250 --> 00:40:59,699

harm in the Scandinavian study of

899

00:40:55,139 --> 00:41:02,309

mammography something like some tens of

900

00:40:59,699 --> 00:41:04,199

thousands of patients were falsely

901

00:41:02,309 --> 00:41:07,019

diagnosed with breast cancer

902

00:41:04,199 --> 00:41:09,779

and some thousands of those people ended

903

00:41:07,019 --> 00:41:11,369

up having a procedure you know so they

904

00:41:09,780 --> 00:41:13,500

thought they had cancer they ended up

905

00:41:11,369 --> 00:41:14,820

having to have a biopsy or an excision

906

00:41:13,500 --> 00:41:20,369

or some kind of procedure and the

907

00:41:14,820 --> 00:41:23,490

psychological side of that is huge and

908

00:41:20,369 --> 00:41:27,660

it's all unnecessary and two known net

909

00:41:23,489 --> 00:41:32,189

gain and and yet there's a there's a

910

00:41:27,659 --> 00:41:34,500

political a sort of a social side to

911

00:41:32,190 --> 00:41:35,970

this that if somebody gets up and says I

912

00:41:34,500 --> 00:41:37,949

think we should stop mammography

913
00:41:35,969 --> 00:41:39,569
screening because the evidence behind it

914
00:41:37,949 --> 00:41:41,338
isn't really very good and we need to

915
00:41:39,570 --> 00:41:44,849
rethink it or at least let's look at the

916
00:41:41,338 --> 00:41:46,679
evidence more objectively and it might

917
00:41:44,849 --> 00:41:49,440
not be a good thing you can't do that

918
00:41:46,679 --> 00:41:54,118
you can't get up and say that but they

919
00:41:49,440 --> 00:41:56,849
they had a one of my favorite programs

920
00:41:54,119 --> 00:41:59,160
is Norman swans Health Report which is

921
00:41:56,849 --> 00:42:02,240
very good I don't know Norman personally

922
00:41:59,159 --> 00:42:05,940
but I can tell you from a scientific

923
00:42:02,239 --> 00:42:07,500
standpoint he is excellent he asks to

924
00:42:05,940 --> 00:42:10,950
all the right questions and looks at the

925
00:42:07,500 --> 00:42:12,568
evidence really well and they produced i

926
00:42:10,949 --> 00:42:15,299
think it was alex barrett that actually

927

00:42:12,568 --> 00:42:17,009

did it who's a collaborator of less air

928

00:42:15,300 --> 00:42:18,210

wing yes yes she's a university student

929

00:42:17,010 --> 00:42:21,150

in school of public health and that's

930

00:42:18,210 --> 00:42:24,449

where I did my clinical epidemiology so

931

00:42:21,150 --> 00:42:26,730

that's why I know Liz and Alex they're

932

00:42:24,449 --> 00:42:29,279

very good that's a great unit but

933

00:42:26,730 --> 00:42:35,250

presented a very objective look at

934

00:42:29,280 --> 00:42:37,500

breast screening and and yet copped

935

00:42:35,250 --> 00:42:41,280

enormous flak from breast screen New

936

00:42:37,500 --> 00:42:44,670

South Wales how dare they publish such a

937

00:42:41,280 --> 00:42:47,430

broadcast such an irresponsible article

938

00:42:44,670 --> 00:42:49,440

and think of the countless lives that

939

00:42:47,429 --> 00:42:52,169

are saved you know every day from this

940

00:42:49,440 --> 00:42:56,130

procedure and how could they dare to

941

00:42:52,170 --> 00:42:57,960
question the standard practice I think

942
00:42:56,130 --> 00:42:59,550
it probably talks to the lack of

943
00:42:57,960 --> 00:43:01,829
understanding of how science works in

944
00:42:59,550 --> 00:43:05,550
large parts of the population including

945
00:43:01,829 --> 00:43:07,019
people who should probably yeah and and

946
00:43:05,550 --> 00:43:09,869
this is the problem with it sounding

947
00:43:07,019 --> 00:43:12,088
good because it it's hard to argue

948
00:43:09,869 --> 00:43:15,390
against what you say you need to have a

949
00:43:12,088 --> 00:43:17,170
mammogram because you might have breast

950
00:43:15,389 --> 00:43:20,440
cancer because you're a woman is best

951
00:43:17,170 --> 00:43:22,180
is very common the only way you really

952
00:43:20,440 --> 00:43:24,608
know is a mammogram it's a much better

953
00:43:22,179 --> 00:43:27,848
test than it is just trying to diagnose

954
00:43:24,608 --> 00:43:29,858
it yourself and if we diagnose that we

955
00:43:27,849 --> 00:43:31,990

can treat it perhaps before it becomes a

956

00:43:29,858 --> 00:43:33,848

problem and I mean it's just hard to

957

00:43:31,989 --> 00:43:38,019

argue against that I mean it is just so

958

00:43:33,849 --> 00:43:39,579

logical and yet it really doesn't bury

959

00:43:38,019 --> 00:43:42,579

out there's lots of reasons why it might

960

00:43:39,579 --> 00:43:45,849

not bear out and there's a lot of

961

00:43:42,579 --> 00:43:49,329

interesting kind of fallacies and biases

962

00:43:45,849 --> 00:43:53,380

that can be built into this interval

963

00:43:49,329 --> 00:43:55,359

bias and things that are difficult to

964

00:43:53,380 --> 00:43:57,099

explain but there's lots of reasons why

965

00:43:55,358 --> 00:43:59,469

probably doesn't work and and

966

00:43:57,099 --> 00:44:01,359

interestingly one of them is that

967

00:43:59,469 --> 00:44:02,919

probably a lot of the treatments that we

968

00:44:01,358 --> 00:44:06,400

give aren't nearly as effective as we

969

00:44:02,920 --> 00:44:08,318

think they are surgery for instance you

970
00:44:06,400 --> 00:44:09,608
know radiotherapy chemotherapy a lot of

971
00:44:08,318 --> 00:44:13,480
these things aren't nearly as effective

972
00:44:09,608 --> 00:44:16,150
as the public believed them to be so but

973
00:44:13,480 --> 00:44:18,608
we do see a significant reduction food

974
00:44:16,150 --> 00:44:21,430
from deaths from cancer for example over

975
00:44:18,608 --> 00:44:24,068
there must know i think if you look take

976
00:44:21,429 --> 00:44:25,868
prostate cancer for instance because if

977
00:44:24,068 --> 00:44:27,460
you this is a classic example of

978
00:44:25,869 --> 00:44:31,269
jiggling the numbers to make things look

979
00:44:27,460 --> 00:44:33,250
but if you look at the survival rate say

980
00:44:31,269 --> 00:44:35,530
i don't know pick a time five years or

981
00:44:33,250 --> 00:44:38,260
ten years I don't have the exact data

982
00:44:35,530 --> 00:44:42,099
with me but in the 1950s for prostate

983
00:44:38,260 --> 00:44:44,470
cancer there was it was a significant

984
00:44:42,099 --> 00:44:47,530
mortality you associated with prostate

985
00:44:44,469 --> 00:44:49,838
cancer if you were once you were

986
00:44:47,530 --> 00:44:52,240
diagnosed with it there was mallets just

987
00:44:49,838 --> 00:44:56,409
for argument's sake let's just say it

988
00:44:52,239 --> 00:44:59,949
was fifty percent now over the years we

989
00:44:56,409 --> 00:45:03,210
have been faced with an increase in the

990
00:44:59,949 --> 00:45:07,629
number of patients with prostate cancer

991
00:45:03,210 --> 00:45:09,940
and a significant lowering of the

992
00:45:07,630 --> 00:45:12,640
mortality associated with the diagnosis

993
00:45:09,940 --> 00:45:14,798
of prostate cancer and treatments have

994
00:45:12,639 --> 00:45:17,259
changed so on the surface of it and the

995
00:45:14,798 --> 00:45:20,829
same thing for breast cancer we're faced

996
00:45:17,260 --> 00:45:22,270
with an epidemic okay and I've heard the

997
00:45:20,829 --> 00:45:23,559
Minister for health say the same thing

998

00:45:22,269 --> 00:45:25,030
about breast cancer I've got a quote

999
00:45:23,559 --> 00:45:28,730
here that i keep on my computer because

1000
00:45:25,030 --> 00:45:30,860
it is so ill-informed but it was

1001
00:45:28,730 --> 00:45:33,170
uh who is the Minister for federal

1002
00:45:30,860 --> 00:45:35,450
minister for health some years ago said

1003
00:45:33,170 --> 00:45:36,590
isn't this terrible we're faced with an

1004
00:45:35,449 --> 00:45:38,210
epidemic of breast cancer where the

1005
00:45:36,590 --> 00:45:40,250
numbers are shooting up through the roof

1006
00:45:38,210 --> 00:45:41,869
i mean it's everybody's got at me out

1007
00:45:40,250 --> 00:45:44,929
you know where is it wasn't diagnosed as

1008
00:45:41,869 --> 00:45:49,609
much before so the rate has doubled and

1009
00:45:44,929 --> 00:45:54,139
yet the survival from breast cancer has

1010
00:45:49,610 --> 00:45:55,970
improved over that time as well and so

1011
00:45:54,139 --> 00:45:58,279
isn't this fantastic it must be the

1012
00:45:55,969 --> 00:46:01,219

treatment that's done it and partly

1013

00:45:58,280 --> 00:46:04,580

what's done it is that the threshold for

1014

00:46:01,219 --> 00:46:06,679

the diagnosis has gone down so as soon

1015

00:46:04,579 --> 00:46:10,159

as you start including things that were

1016

00:46:06,679 --> 00:46:11,659

once called benign cysts or customer

1017

00:46:10,159 --> 00:46:13,869

insight you soon as you start including

1018

00:46:11,659 --> 00:46:15,859

them as cancer all the sudden you've

1019

00:46:13,869 --> 00:46:17,839

increased the number of people with

1020

00:46:15,860 --> 00:46:20,840

breast cancer okay so that's that's

1021

00:46:17,840 --> 00:46:24,289

given us the epidemic and then you've

1022

00:46:20,840 --> 00:46:26,090

treated everyone now surprise surprise

1023

00:46:24,289 --> 00:46:28,820

the patients who have customer it's what

1024

00:46:26,090 --> 00:46:31,070

you do extremely well you know the the

1025

00:46:28,820 --> 00:46:35,420

survival for that is very very high and

1026

00:46:31,070 --> 00:46:37,519

so you end up with an increased

1027
00:46:35,420 --> 00:46:40,059
incidence and so the numbers they showed

1028
00:46:37,519 --> 00:46:43,219
with prostate cancer was that the

1029
00:46:40,059 --> 00:46:46,219
mortality fell from fifty percent to

1030
00:46:43,219 --> 00:46:48,679
five percent the numbers of people were

1031
00:46:46,219 --> 00:46:52,879
the numbers of prostate cancer patients

1032
00:46:48,679 --> 00:46:56,659
presenting went up and yet the number of

1033
00:46:52,880 --> 00:47:00,680
people who died each year from prostate

1034
00:46:56,659 --> 00:47:03,859
cancer actually went up you know so it's

1035
00:47:00,679 --> 00:47:05,509
so it just makes it sound good to say

1036
00:47:03,860 --> 00:47:07,039
everyone's got prostate cancer but no

1037
00:47:05,510 --> 00:47:09,110
one's dying of it anymore so basically

1038
00:47:07,039 --> 00:47:10,730
we're talking about that diagnosis tools

1039
00:47:09,110 --> 00:47:15,019
being better nowadays but treatment

1040
00:47:10,730 --> 00:47:16,670
tools not necessarily catching up no I

1041
00:47:15,019 --> 00:47:18,500
don't think diagnostic tools are

1042
00:47:16,670 --> 00:47:21,430
necessarily better I think that there

1043
00:47:18,500 --> 00:47:25,940
has been a change in the threshold for

1044
00:47:21,429 --> 00:47:27,799
diagnosis up but so say 34 years ago

1045
00:47:25,940 --> 00:47:30,010
mammogram didn't exist so you wouldn't

1046
00:47:27,800 --> 00:47:33,500
can't you wouldn't be able to see

1047
00:47:30,010 --> 00:47:36,150
cancerous or precancerous some

1048
00:47:33,500 --> 00:47:39,809
formations here but how is this helped

1049
00:47:36,150 --> 00:47:40,950
now it just increased its ad increase

1050
00:47:39,809 --> 00:47:42,779
the number of people who are diagnosed

1051
00:47:40,949 --> 00:47:45,210
it's similar to although although it's

1052
00:47:42,780 --> 00:47:47,940
only really diagnose Don biopsy so if

1053
00:47:45,210 --> 00:47:49,858
you have an abnormal mammogram it will

1054
00:47:47,940 --> 00:47:51,659
only lead you to have a biopsy if it's

1055

00:47:49,858 --> 00:47:53,098
suspicious so the dollar back that if

1056
00:47:51,659 --> 00:47:54,598
you look at the number of biopsies you'd

1057
00:47:53,099 --> 00:47:56,880
find that they've gone up as well yes

1058
00:47:54,599 --> 00:47:59,160
the other half so it's to me it's a

1059
00:47:56,880 --> 00:48:01,910
little bit like the whole autism

1060
00:47:59,159 --> 00:48:03,989
vaccination argument where the

1061
00:48:01,909 --> 00:48:05,730
anti-vaccination lobby claimed that

1062
00:48:03,989 --> 00:48:08,309
autism is obviously caused by vaccines

1063
00:48:05,730 --> 00:48:11,519
and the reason is they did their

1064
00:48:08,309 --> 00:48:14,578
evidence is that as vaccines vaccination

1065
00:48:11,519 --> 00:48:16,440
rates have gone up so have autism now in

1066
00:48:14,579 --> 00:48:18,060
what happened in the world is that in

1067
00:48:16,440 --> 00:48:20,400
certain places vaccination rates have

1068
00:48:18,059 --> 00:48:22,318
dropped so we had a natural experiment

1069
00:48:20,400 --> 00:48:25,588

unnatural epidemiological experiment

1070

00:48:22,318 --> 00:48:27,358

where the vaccination rates of job in

1071

00:48:25,588 --> 00:48:29,670

autism rates of course continue to rise

1072

00:48:27,358 --> 00:48:32,309

because it's got to do with a broadening

1073

00:48:29,670 --> 00:48:34,409

of criteria and with better diagnosis so

1074

00:48:32,309 --> 00:48:37,019

this gets a little bit it's a little bit

1075

00:48:34,409 --> 00:48:39,149

similar this get suttin yeah I on to my

1076

00:48:37,019 --> 00:48:44,670

next my next favorite topic which is

1077

00:48:39,150 --> 00:48:46,920

medicalization and yeah I don't know how

1078

00:48:44,670 --> 00:48:49,380

many kids and families I know have

1079

00:48:46,920 --> 00:48:51,210

autism now I mean nobody had it when I

1080

00:48:49,380 --> 00:48:55,829

was a kid now everybody's got some

1081

00:48:51,210 --> 00:48:56,909

degree of it and a lot of these kids do

1082

00:48:55,829 --> 00:48:58,500

you really want a school and they look

1083

00:48:56,909 --> 00:49:00,299

fine to me but i don't know i'm not an

1084
00:48:58,500 --> 00:49:02,190
expert and that kind of thing but yeah

1085
00:49:00,300 --> 00:49:03,960
surely it's diagnosed morning other than

1086
00:49:02,190 --> 00:49:05,460
ors before and it's not because it's an

1087
00:49:03,960 --> 00:49:06,720
epidemic it's probably because the

1088
00:49:05,460 --> 00:49:10,559
threshold or the diagnostic criteria

1089
00:49:06,719 --> 00:49:12,419
change and it's like depression you know

1090
00:49:10,559 --> 00:49:15,088
and and people i don't know people just

1091
00:49:12,420 --> 00:49:17,550
want to buy these things up it's in some

1092
00:49:15,088 --> 00:49:19,380
people's interests it's in the drug

1093
00:49:17,550 --> 00:49:22,289
company that makes antidepressants

1094
00:49:19,380 --> 00:49:24,059
interest to make depression appear to be

1095
00:49:22,289 --> 00:49:26,730
a problem i remember must be enough we

1096
00:49:24,059 --> 00:49:27,838
must be up to the stage now where 51% of

1097
00:49:26,730 --> 00:49:31,380
the people in the world have depression

1098
00:49:27,838 --> 00:49:32,670
you know the other fifty percent a to

1099
00:49:31,380 --> 00:49:38,910
hazard so when they need so they

1100
00:49:32,670 --> 00:49:41,068
normally yes by the way this thing about

1101
00:49:38,909 --> 00:49:42,929
over medicalization is not something

1102
00:49:41,068 --> 00:49:44,849
that only the scientific medical

1103
00:49:42,929 --> 00:49:47,338
fraternity

1104
00:49:44,849 --> 00:49:48,479
or so-called fraternities responsible

1105
00:49:47,338 --> 00:49:50,358
for it's something that we see in

1106
00:49:48,478 --> 00:49:54,179
alternatives to medicine as well and

1107
00:49:50,358 --> 00:49:56,068
where they make claims about how bad

1108
00:49:54,179 --> 00:49:57,778
things are but they also make claims as

1109
00:49:56,068 --> 00:50:00,659
to what they can treat of course they

1110
00:49:57,778 --> 00:50:02,969
treat with water or with you know making

1111
00:50:00,659 --> 00:50:04,679
you know making your back click it's

1112

00:50:02,969 --> 00:50:06,478
something that is that has no evidence

1113
00:50:04,679 --> 00:50:08,788
for so it seems to me like there's a bit

1114
00:50:06,478 --> 00:50:11,038
of a bit of a parallel here although I

1115
00:50:08,789 --> 00:50:12,329
would say one thing that you have to say

1116
00:50:11,039 --> 00:50:14,670
for a scientific medicine is that

1117
00:50:12,329 --> 00:50:17,130
there's at least the attitude that we

1118
00:50:14,670 --> 00:50:19,289
have to show scientifically what works

1119
00:50:17,130 --> 00:50:21,630
and what not I would say the big

1120
00:50:19,289 --> 00:50:23,729
advantage that medicine has over say

1121
00:50:21,630 --> 00:50:32,789
complementary alternative medicines is

1122
00:50:23,728 --> 00:50:35,009
that it is based on science okay so it's

1123
00:50:32,789 --> 00:50:36,359
using the scientific method and there

1124
00:50:35,009 --> 00:50:38,728
are a lot of people and especially the

1125
00:50:36,358 --> 00:50:42,239
you know the big names and a lot of

1126
00:50:38,728 --> 00:50:45,838

people in influence are using very good

1127

00:50:42,239 --> 00:50:48,318

scientific methods to to examine what

1128

00:50:45,838 --> 00:50:52,139

they what they're looking for the

1129

00:50:48,318 --> 00:50:53,489

downside of medicine compared to because

1130

00:50:52,139 --> 00:50:55,078

you've got to say okay somebody's sick

1131

00:50:53,489 --> 00:50:56,880

they got they got a pain in his stomach

1132

00:50:55,079 --> 00:51:01,890

should they go to a doctor or should

1133

00:50:56,880 --> 00:51:04,048

they go to a homeopath okay now your

1134

00:51:01,889 --> 00:51:06,629

argument then is well at least what the

1135

00:51:04,048 --> 00:51:08,579

doctors doing is is based on some signs

1136

00:51:06,630 --> 00:51:11,450

even though he may not necessarily be

1137

00:51:08,579 --> 00:51:15,180

able to diagnose them or he may be wrong

1138

00:51:11,449 --> 00:51:18,598

you know at least he's approaching in a

1139

00:51:15,179 --> 00:51:19,889

scientific manner well I would argue

1140

00:51:18,599 --> 00:51:24,479

that a lot of the time he probably isn't

1141
00:51:19,889 --> 00:51:27,719
but but having said that a lot of the

1142
00:51:24,478 --> 00:51:30,028
time they are that's the advantage the

1143
00:51:27,719 --> 00:51:33,028
downside is that the patient who goes to

1144
00:51:30,028 --> 00:51:36,690
the homeopath is much less likely to

1145
00:51:33,028 --> 00:51:39,650
have harm done to them whereas the

1146
00:51:36,690 --> 00:51:42,719
potential for harm being done to you by

1147
00:51:39,650 --> 00:51:45,660
attending a hospital is enormous

1148
00:51:42,719 --> 00:51:48,989
although you might say that going to a

1149
00:51:45,659 --> 00:51:51,469
homeopath can lead to the harm of not

1150
00:51:48,989 --> 00:51:51,469
being treated

1151
00:51:51,829 --> 00:51:56,130
yes this is where you might need yeah

1152
00:51:54,539 --> 00:51:57,450
but I think some of the time you can

1153
00:51:56,130 --> 00:52:00,480
still make an argument that they'd be

1154
00:51:57,449 --> 00:52:03,000
better off not being treated there's so

1155
00:52:00,480 --> 00:52:04,199
many examples it just has to be some of

1156
00:52:03,000 --> 00:52:06,000
the figures that come out when you look

1157
00:52:04,199 --> 00:52:10,230
into these things when you look at the

1158
00:52:06,000 --> 00:52:14,400
harm done in hospitals the deaths call

1159
00:52:10,230 --> 00:52:18,449
unnecessary deaths the deaths caused by

1160
00:52:14,400 --> 00:52:21,150
medical error medication errors all

1161
00:52:18,449 --> 00:52:23,159
sorts it's huge numbers that we're

1162
00:52:21,150 --> 00:52:25,289
looking at absolutely huge the studies

1163
00:52:23,159 --> 00:52:30,509
that were done out of Boston the studies

1164
00:52:25,289 --> 00:52:32,789
that were done here in in Australia it's

1165
00:52:30,509 --> 00:52:35,909
just the staggering how much have I need

1166
00:52:32,789 --> 00:52:38,609
to present this and the reaction to most

1167
00:52:35,909 --> 00:52:40,649
people is just well you know they will

1168
00:52:38,608 --> 00:52:42,659
probably stick anyway and it's you know

1169

00:52:40,650 --> 00:52:47,068
that's just you know good with the bad

1170
00:52:42,659 --> 00:52:49,588
and the canary in a very recent episode

1171
00:52:47,068 --> 00:52:51,179
of I have a segment called grain of salt

1172
00:52:49,588 --> 00:52:53,548
on the skeptics on podcast which were

1173
00:52:51,179 --> 00:52:55,318
recording for right now and in a recent

1174
00:52:53,548 --> 00:52:56,639
episode I actually spoke about that

1175
00:52:55,318 --> 00:52:57,838
statistical thing and I actually took a

1176
00:52:56,639 --> 00:53:00,719
different approach now I'd be interested

1177
00:52:57,838 --> 00:53:02,099
to hear how you would respond to that

1178
00:53:00,719 --> 00:53:04,108
because one of the things I said was

1179
00:53:02,099 --> 00:53:08,548
there's this number throwing about

1180
00:53:04,108 --> 00:53:12,328
18,000 people a year die of medical

1181
00:53:08,548 --> 00:53:16,440
error yeah what what I'd be interested

1182
00:53:12,329 --> 00:53:18,359
to to know and I didn't I was an actor I

1183
00:53:16,440 --> 00:53:21,599

wasn't actually able to find reliable

1184

00:53:18,358 --> 00:53:25,170
information is how many of these people

1185

00:53:21,599 --> 00:53:26,880
died because they were actually there

1186

00:53:25,170 --> 00:53:28,740
was some negligence involved that would

1187

00:53:26,880 --> 00:53:31,588
actually not they arrived at the

1188

00:53:28,739 --> 00:53:33,298
hospital healthy and or relatively

1189

00:53:31,588 --> 00:53:35,880
healthy would not would not have died

1190

00:53:33,298 --> 00:53:38,788
the other than through the fact that

1191

00:53:35,880 --> 00:53:42,420
they visited the hospital I think that's

1192

00:53:38,789 --> 00:53:44,430
a very important question to ask because

1193

00:53:42,420 --> 00:53:46,048
if you're talking about people who came

1194

00:53:44,429 --> 00:53:48,868
to a hospital and should have been saved

1195

00:53:46,048 --> 00:53:50,338
yeah but weren't yeah then that's a

1196

00:53:48,869 --> 00:53:52,608
completely different approach because

1197

00:53:50,338 --> 00:53:54,449
then you're comparing them to

1198
00:53:52,608 --> 00:53:57,298
alternative treatments that wouldn't

1199
00:53:54,449 --> 00:54:00,108
have helped them so yeah oh I think that

1200
00:53:57,298 --> 00:54:00,108
that number is

1201
00:54:01,519 --> 00:54:05,789
supposed to say hi or low because in

1202
00:54:03,480 --> 00:54:08,250
which way looking at but I think that

1203
00:54:05,789 --> 00:54:11,369
most people that present to a hospital

1204
00:54:08,250 --> 00:54:14,400
to give treated don't die vehicle death

1205
00:54:11,369 --> 00:54:16,349
rate in hospital isn't very high and so

1206
00:54:14,400 --> 00:54:18,358
I think most of those people that died

1207
00:54:16,349 --> 00:54:20,580
through medical error would not have

1208
00:54:18,358 --> 00:54:21,779
died anyway but I have to read the

1209
00:54:20,579 --> 00:54:24,480
studies again haven't read them for

1210
00:54:21,780 --> 00:54:28,980
years to look as it was broken down into

1211
00:54:24,480 --> 00:54:33,179
sort of actual sort of medication errors

1212
00:54:28,980 --> 00:54:37,409
and they had different categories of

1213
00:54:33,179 --> 00:54:40,319
adverse events but I see complications

1214
00:54:37,409 --> 00:54:43,079
all the time in the hospital it just

1215
00:54:40,320 --> 00:54:45,150
errors occur all the time but isn't

1216
00:54:43,079 --> 00:54:46,619
there the bias here okay I'll throw that

1217
00:54:45,150 --> 00:54:49,590
back at you because you look you look

1218
00:54:46,619 --> 00:54:50,730
you're a surgeon and I academic here you

1219
00:54:49,590 --> 00:54:53,160
look at things in terms of the

1220
00:54:50,730 --> 00:54:55,889
statistics side as well as the clinical

1221
00:54:53,159 --> 00:54:57,899
side and I'm just wondering you are the

1222
00:54:55,889 --> 00:55:00,690
hospital and you see those complications

1223
00:54:57,900 --> 00:55:03,420
could it be that you're a little bit

1224
00:55:00,690 --> 00:55:04,889
biased and just seeing seeing seeing the

1225
00:55:03,420 --> 00:55:07,320
complications I mean those patients just

1226

00:55:04,889 --> 00:55:09,420
go home a very small proportion actually

1227
00:55:07,320 --> 00:55:14,130
have complications i would assume these

1228
00:55:09,420 --> 00:55:16,079
days that first of all he's uh it

1229
00:55:14,130 --> 00:55:23,510
depends on kind of what area you're

1230
00:55:16,079 --> 00:55:26,909
looking at yeah complications are common

1231
00:55:23,510 --> 00:55:30,180
perhaps it's a question that should be

1232
00:55:26,909 --> 00:55:33,389
asked is because most complications that

1233
00:55:30,179 --> 00:55:35,368
I say aren't death there there are other

1234
00:55:33,389 --> 00:55:37,789
things where it's something wasn't fixed

1235
00:55:35,369 --> 00:55:41,550
properly and it needs to be redone and

1236
00:55:37,789 --> 00:55:43,259
you know they didn't use the right thing

1237
00:55:41,550 --> 00:55:45,930
here and now something else has to be

1238
00:55:43,260 --> 00:55:47,520
added to it or they neglected to give

1239
00:55:45,929 --> 00:55:49,319
them this medication and therefore they

1240
00:55:47,519 --> 00:55:54,329

got a problem the question there is

1241
00:55:49,320 --> 00:55:56,820
probably the so what factor because it's

1242
00:55:54,329 --> 00:55:58,230
interesting we worrying in orthopedic

1243
00:55:56,820 --> 00:56:00,950
trauma for insta I may be going off the

1244
00:55:58,230 --> 00:56:04,230
trachea so bring me back if if I am

1245
00:56:00,949 --> 00:56:06,539
fixing factors for instance we worry

1246
00:56:04,230 --> 00:56:08,539
about whether the bone heals or not okay

1247
00:56:06,539 --> 00:56:11,338
and so that's what we really hang out

1248
00:56:08,539 --> 00:56:12,960
our expertise on is we can get a bone to

1249
00:56:11,338 --> 00:56:14,440
heal and if we can't we consider that a

1250
00:56:12,960 --> 00:56:16,030
failure of treatment

1251
00:56:14,440 --> 00:56:17,980
and and a certain percentage of them

1252
00:56:16,030 --> 00:56:20,290
don't I mean if they're baby berrykin or

1253
00:56:17,980 --> 00:56:22,690
whatever and and one of our common

1254
00:56:20,289 --> 00:56:27,009
operations is to have to rio preto bones

1255
00:56:22,690 --> 00:56:28,568
to get them to hell and we consider that

1256
00:56:27,010 --> 00:56:29,500
a disaster that's a failure of treatment

1257
00:56:28,568 --> 00:56:32,409
the patients have to go to hospital

1258
00:56:29,500 --> 00:56:35,500
again they've had another procedure it's

1259
00:56:32,409 --> 00:56:37,179
it's quite a big deal and so we consider

1260
00:56:35,500 --> 00:56:41,039
that a bad thing and I think that should

1261
00:56:37,179 --> 00:56:43,269
be avoided however the patients don't

1262
00:56:41,039 --> 00:56:44,199
patients don't necessarily see that it's

1263
00:56:43,269 --> 00:56:47,530
a bad thing and I've done some

1264
00:56:44,199 --> 00:56:49,509
satisfaction surveys where the patient

1265
00:56:47,530 --> 00:56:50,940
satisfaction is completely unrelated to

1266
00:56:49,510 --> 00:56:52,930
whether they have a complication or not

1267
00:56:50,940 --> 00:56:56,519
or whether they need to have another

1268
00:56:52,929 --> 00:56:58,960
operation it's completely unrelated and

1269
00:56:56,519 --> 00:57:00,940
to give you an example if I had a

1270
00:56:58,960 --> 00:57:03,789
patient that I did an operational I

1271
00:57:00,940 --> 00:57:06,818
pinned their broken bone and the next

1272
00:57:03,789 --> 00:57:08,349
day I saw them and their leg was twisted

1273
00:57:06,818 --> 00:57:10,358
and it was in the wrong position and I

1274
00:57:08,349 --> 00:57:12,039
had done the operation incorrectly and

1275
00:57:10,358 --> 00:57:14,230
they had to go back and have another

1276
00:57:12,039 --> 00:57:16,568
operation to redo it now that's an

1277
00:57:14,230 --> 00:57:18,760
adverse event in any person's book it's

1278
00:57:16,568 --> 00:57:21,608
a complication you may even call it

1279
00:57:18,760 --> 00:57:24,069
negligence or not you know no attention

1280
00:57:21,608 --> 00:57:25,690
to detail but it's a bad result and it's

1281
00:57:24,068 --> 00:57:31,449
required another operation for the

1282
00:57:25,690 --> 00:57:33,159
patient however by and large patients it

1283

00:57:31,449 --> 00:57:36,699
will be very good about things like that

1284
00:57:33,159 --> 00:57:39,368
so if I say to the patient look we've

1285
00:57:36,699 --> 00:57:40,809
done your operation and he bones has

1286
00:57:39,369 --> 00:57:42,309
been stabilized but if you look at your

1287
00:57:40,809 --> 00:57:43,960
feet here if I just explained to you you

1288
00:57:42,309 --> 00:57:46,088
can see there's some malalignment it's

1289
00:57:43,960 --> 00:57:47,470
not it's not quite right and I think

1290
00:57:46,088 --> 00:57:49,150
that that should be corrected and in

1291
00:57:47,469 --> 00:57:51,338
fact the x-rays show that it's out by a

1292
00:57:49,150 --> 00:57:53,559
considerable amount and what I'd like to

1293
00:57:51,338 --> 00:57:55,989
do is take you back we operate on you

1294
00:57:53,559 --> 00:57:59,710
again and I'm very sorry this has had to

1295
00:57:55,989 --> 00:58:01,449
happen but it has and and what I'd like

1296
00:57:59,710 --> 00:58:03,789
to do is remove some of the screws

1297
00:58:01,449 --> 00:58:07,000

realign your leg and reinsert the screws

1298

00:58:03,789 --> 00:58:09,130

again in a better position and we can do

1299

00:58:07,000 --> 00:58:11,440

that for you as soon as we can we'll

1300

00:58:09,130 --> 00:58:13,088

book it for tomorrow morning and but you

1301

00:58:11,440 --> 00:58:14,108

a little menu in hospital for couple of

1302

00:58:13,088 --> 00:58:17,440

extra days and you do have to have

1303

00:58:14,108 --> 00:58:19,318

another operation but most patients are

1304

00:58:17,440 --> 00:58:23,260

find a better they really don't mind

1305

00:58:19,318 --> 00:58:25,719

which is interesting you know so when is

1306

00:58:23,260 --> 00:58:28,490

a complication a bad thing

1307

00:58:25,719 --> 00:58:30,019

most patients are happy with that result

1308

00:58:28,489 --> 00:58:33,709

and they will leave the hospital

1309

00:58:30,019 --> 00:58:37,579

satisfied however if they get a good

1310

00:58:33,710 --> 00:58:40,099

operation and I'm rude to them or I

1311

00:58:37,579 --> 00:58:42,049

don't see them afterwards I don't answer

1312
00:58:40,099 --> 00:58:43,789
their questions properly on dismissive

1313
00:58:42,050 --> 00:58:45,380
of them they will be completely

1314
00:58:43,789 --> 00:58:47,360
dissatisfied that will be dissatisfied

1315
00:58:45,380 --> 00:58:49,269
with the operation with the results of

1316
00:58:47,360 --> 00:58:51,829
the operation with the look of their leg

1317
00:58:49,269 --> 00:58:55,119
with the the scar that will be

1318
00:58:51,829 --> 00:58:57,349
dissatisfied with the whole procedure

1319
00:58:55,119 --> 00:58:59,569
whereas the other patient who's now got

1320
00:58:57,349 --> 00:59:01,369
two scars may be completely satisfied

1321
00:58:59,570 --> 00:59:03,170
look at how well those two scars healed

1322
00:59:01,369 --> 00:59:05,869
up and the doctor was really nice to me

1323
00:59:03,170 --> 00:59:09,320
so it's interesting about complications

1324
00:59:05,869 --> 00:59:13,489
so that's why we probably have to bring

1325
00:59:09,320 --> 00:59:16,850
it to more objective things like death

1326
00:59:13,489 --> 00:59:18,979
yeah well Beth is absolutely objective

1327
00:59:16,849 --> 00:59:20,509
but also and I think in that respect

1328
00:59:18,980 --> 00:59:21,889
probably should probably look at life

1329
00:59:20,510 --> 00:59:24,680
expectancy and I think one of the things

1330
00:59:21,889 --> 00:59:29,239
that to me are the clear indications of

1331
00:59:24,679 --> 00:59:31,159
the success of medical science is the

1332
00:59:29,239 --> 00:59:34,750
difference in life expectancy between

1333
00:59:31,159 --> 00:59:36,799
places that to have a disagreement I

1334
00:59:34,750 --> 00:59:40,659
disagree that the difference in life

1335
00:59:36,800 --> 00:59:43,130
expectancy is due to medical science I

1336
00:59:40,659 --> 00:59:45,739
that's been looked at and in some

1337
00:59:43,130 --> 00:59:47,660
studies they say that probably the

1338
00:59:45,739 --> 00:59:50,269
proportion of the difference in life

1339
00:59:47,659 --> 00:59:52,789
expectancy due to medical technology and

1340

00:59:50,269 --> 00:59:59,110
medical science is may be of the order

1341
00:59:52,789 --> 00:59:59,110
of ten percent and most of it is due to

1342
01:00:00,969 --> 01:00:08,509
nutrition clean drinking water a good

1343
01:00:04,789 --> 01:00:11,449
food healthy lifestyle that kind of

1344
01:00:08,510 --> 01:00:14,300
thing rather than through the heart

1345
01:00:11,449 --> 01:00:16,969
bypass is in China a good example of not

1346
01:00:14,300 --> 01:00:19,039
because in China the main difference is

1347
01:00:16,969 --> 01:00:21,829
actually not there's increased

1348
01:00:19,039 --> 01:00:23,449
organization probably a life that's a

1349
01:00:21,829 --> 01:00:25,340
little bit less healthy we're going to

1350
01:00:23,449 --> 01:00:28,849
show me something on you we keep talking

1351
01:00:25,340 --> 01:00:31,519
I'll show you something here okay just

1352
01:00:28,849 --> 01:00:33,019
should probably tell listeners that ian

1353
01:00:31,519 --> 01:00:35,300
has just pulled out his laptop he's

1354
01:00:33,019 --> 01:00:36,369

looking for us some information there

1355

01:00:35,300 --> 01:00:38,380

I've done you

1356

01:00:36,369 --> 01:00:40,720

the deepest type of research it's called

1357

01:00:38,380 --> 01:00:43,690

googling and what the information I

1358

01:00:40,719 --> 01:00:46,449

found was that things like clean water

1359

01:00:43,690 --> 01:00:48,159

or nutrition have not actually changed

1360

01:00:46,449 --> 01:00:49,899

dramatically in China over the past 50

1361

01:00:48,159 --> 01:00:52,808

years but what has changed penetration

1362

01:00:49,900 --> 01:00:56,499

of of Western medicine into rural areas

1363

01:00:52,809 --> 01:00:58,900

as well as the big cities and there was

1364

01:00:56,498 --> 01:01:01,538

a suggestion that that has significantly

1365

01:00:58,900 --> 01:01:04,298

contributor to find an example where it

1366

01:01:01,539 --> 01:01:05,890

hasn't happened oh ok it's easy to pick

1367

01:01:04,298 --> 01:01:07,659

somewhere where it has but there's the

1368

01:01:05,889 --> 01:01:09,368

change in life expectancy over the last

1369
01:01:07,659 --> 01:01:12,219
300 years could you describe the

1370
01:01:09,369 --> 01:01:14,858
mathletes so the graph goes up from I

1371
01:01:12,219 --> 01:01:17,709
think that it's not exactly mark but are

1372
01:01:14,858 --> 01:01:22,659
under 40 so a life expectancy of under

1373
01:01:17,710 --> 01:01:25,838
40 in the year 1700 to pushing 80 around

1374
01:01:22,659 --> 01:01:29,108
San ladieswear dear 2000 yet but in a

1375
01:01:25,838 --> 01:01:30,849
way I I wish I could remember where I

1376
01:01:29,108 --> 01:01:35,259
got this from I think it's from the UK

1377
01:01:30,849 --> 01:01:37,568
actually elysees by the way that people

1378
01:01:35,259 --> 01:01:40,539
were not dropping off at the age of 38

1379
01:01:37,568 --> 01:01:42,639
in this joint I love dying young yes so

1380
01:01:40,539 --> 01:01:44,079
you're so dying at the age of 90 we were

1381
01:01:42,639 --> 01:01:46,150
also a lot more beer infant mortality

1382
01:01:44,079 --> 01:01:49,329
was very high and that skews the figures

1383
01:01:46,150 --> 01:01:51,309
a lot yeah but what you can see is that

1384
01:01:49,329 --> 01:01:54,548
ever so gradually the life expectancy

1385
01:01:51,309 --> 01:01:57,160
has increased over the last 300 years

1386
01:01:54,548 --> 01:02:00,429
and it's been increasing steadily and

1387
01:01:57,159 --> 01:02:04,118
it's probably plateaued more or less

1388
01:02:00,429 --> 01:02:07,149
compared to the rapid increase from 1702

1389
01:02:04,119 --> 01:02:08,829
1802 1900 and when we get to the ear of

1390
01:02:07,150 --> 01:02:10,450
modern medicine where medicine really

1391
01:02:08,829 --> 01:02:12,369
has actually made a difference I mean

1392
01:02:10,449 --> 01:02:14,230
you've got to be talking what not you

1393
01:02:12,369 --> 01:02:17,798
would say what nineteen fifty plus I

1394
01:02:14,230 --> 01:02:20,889
mean no real good surgery before before

1395
01:02:17,798 --> 01:02:28,210
then antibiotics not until nineteen dr.

1396
01:02:20,889 --> 01:02:30,909
World War two paths and so yeah and

1397

01:02:28,210 --> 01:02:33,818
that's when the that's the tail end of

1398
01:02:30,909 --> 01:02:36,038
it and so to attribute the changing life

1399
01:02:33,818 --> 01:02:38,288
expectancy from 40 to 80 over the last

1400
01:02:36,039 --> 01:02:41,829
three hundred years to a few medical

1401
01:02:38,289 --> 01:02:45,630
advances in the last 50 s probably

1402
01:02:41,829 --> 01:02:48,560
drawing a longbow the other one is that

1403
01:02:45,630 --> 01:02:50,599
his antibiotics is often quoted

1404
01:02:48,559 --> 01:02:52,549
is the famous one well I'll show you

1405
01:02:50,599 --> 01:02:54,440
another trend a hundred year trend

1406
01:02:52,550 --> 01:02:58,730
showing the gradual decrease in

1407
01:02:54,440 --> 01:03:02,990
mortality steady gradual decrease over

1408
01:02:58,730 --> 01:03:05,150
time in waterfront on TV yeah and then

1409
01:03:02,989 --> 01:03:07,159
you mark on there where antibiotics were

1410
01:03:05,150 --> 01:03:09,950
introduced it made knows no knowledge to

1411
01:03:07,159 --> 01:03:13,629

it at all it was just about any rough

1412

01:03:09,949 --> 01:03:13,629

the trend of the graph continues

1413

01:03:13,719 --> 01:03:19,849

uninterruptible trained from them from

1414

01:03:16,119 --> 01:03:23,509

1902 about nineteen eighty yeah and then

1415

01:03:19,849 --> 01:03:25,869

actually going up a little bit but in

1416

01:03:23,510 --> 01:03:29,030

the middle of the 1900s when antibiotics

1417

01:03:25,869 --> 01:03:31,639

for TB was introduced at the graph

1418

01:03:29,030 --> 01:03:37,940

continues in a linear fashion in the

1419

01:03:31,639 --> 01:03:42,079

same direction yeah okay we're almost

1420

01:03:37,940 --> 01:03:45,530

out of time mostly because the tape here

1421

01:03:42,079 --> 01:03:47,150

is about right now I swear we've enjoyed

1422

01:03:45,530 --> 01:03:49,700

the token we're talking for much longer

1423

01:03:47,150 --> 01:03:52,130

than I expected I want to go back to the

1424

01:03:49,699 --> 01:03:53,869

surgical studies good and something

1425

01:03:52,130 --> 01:03:58,039

something specific that you said earlier

1426
01:03:53,869 --> 01:03:59,929
to do with the throw scopic surgery for

1427
01:03:58,039 --> 01:04:01,789
the knees where you mentioned it's just

1428
01:03:59,929 --> 01:04:03,409
too little cuts not even stitches are

1429
01:04:01,789 --> 01:04:07,279
required but what do you do about things

1430
01:04:03,409 --> 01:04:11,690
that are either require a larger cut yes

1431
01:04:07,280 --> 01:04:14,450
or where the surgery is for a something

1432
01:04:11,690 --> 01:04:16,039
like open heart surgery you know like

1433
01:04:14,449 --> 01:04:18,859
these they're kind of things where you

1434
01:04:16,039 --> 01:04:20,449
do not just open the chest cavity just

1435
01:04:18,860 --> 01:04:21,559
in order to design well I think they did

1436
01:04:20,449 --> 01:04:24,559
it I think there was a sham surgery

1437
01:04:21,559 --> 01:04:27,650
study done a long time ago on ligation

1438
01:04:24,559 --> 01:04:31,219
of the internal mammary artery which is

1439
01:04:27,650 --> 01:04:33,289
inside the chest it's an artery inside

1440
01:04:31,219 --> 01:04:36,649
the chest which runs along the chest

1441
01:04:33,289 --> 01:04:40,070
wall and the it doesn't run to the heart

1442
01:04:36,650 --> 01:04:42,470
but it's a branch of a vessel that comes

1443
01:04:40,070 --> 01:04:44,809
from the same origin the theory and

1444
01:04:42,469 --> 01:04:47,719
again biological plausibility fantastic

1445
01:04:44,809 --> 01:04:50,269
is this harder used to be ligated and by

1446
01:04:47,719 --> 01:04:52,579
ligating this artery and not having any

1447
01:04:50,269 --> 01:04:54,739
blood going down your chest wall it

1448
01:04:52,579 --> 01:04:57,170
would divert the blood and an extent to

1449
01:04:54,739 --> 01:05:00,649
your heart so more blood will be going

1450
01:04:57,170 --> 01:05:02,190
to the to the cardiac vessels rather

1451
01:05:00,650 --> 01:05:04,099
than to this other fairly useless

1452
01:05:02,190 --> 01:05:06,900
thistle and so they would like eight the

1453
01:05:04,099 --> 01:05:08,880
internal memory artery and was great

1454

01:05:06,900 --> 01:05:12,570
procedure it worked very well and was

1455
01:05:08,880 --> 01:05:14,550
accepted and widely used because her

1456
01:05:12,570 --> 01:05:15,900
biological plausibility and then they

1457
01:05:14,550 --> 01:05:18,180
did a randomized control trial where

1458
01:05:15,900 --> 01:05:19,950
they located the artery and half of them

1459
01:05:18,179 --> 01:05:22,230
and didn't locate in the other half and

1460
01:05:19,949 --> 01:05:24,719
they found no difference that's amazing

1461
01:05:22,230 --> 01:05:27,269
so when they say they didn't like gate I

1462
01:05:24,719 --> 01:05:30,509
know for example in certain treatments

1463
01:05:27,269 --> 01:05:33,389
for example certain types of infection

1464
01:05:30,510 --> 01:05:35,850
of fungal infections what you would do

1465
01:05:33,389 --> 01:05:38,460
is my wife used to work in clinical

1466
01:05:35,849 --> 01:05:41,069
studies and she worked in this study

1467
01:05:38,460 --> 01:05:47,010
where they compared a new treatment new

1468
01:05:41,070 --> 01:05:50,519

drug for fungal infections that the

1469

01:05:47,010 --> 01:05:52,680

control was not was not placebo the

1470

01:05:50,519 --> 01:05:55,110

control was this standard best treatment

1471

01:05:52,679 --> 01:05:56,429

of the day I'm just wondering about

1472

01:05:55,110 --> 01:05:57,990

something like this whether it's quite

1473

01:05:56,429 --> 01:05:59,940

radical you opened the chest cavity

1474

01:05:57,989 --> 01:06:03,629

those it's an into significant injury

1475

01:05:59,940 --> 01:06:05,309

which takes a long time to heal do you

1476

01:06:03,630 --> 01:06:06,780

actually then do something else so you

1477

01:06:05,309 --> 01:06:10,889

just opened the chest cavity and then

1478

01:06:06,780 --> 01:06:12,960

dunno that's it that's it don't do

1479

01:06:10,889 --> 01:06:14,519

anything else you got to be careful of

1480

01:06:12,960 --> 01:06:17,400

using the gold standard there's a kind

1481

01:06:14,519 --> 01:06:19,829

of a creeping error that gets into this

1482

01:06:17,400 --> 01:06:21,300

because something gets tested and or

1483
01:06:19,829 --> 01:06:23,670
doesn't get tested it's just standard

1484
01:06:21,300 --> 01:06:25,170
practice and then something else gets

1485
01:06:23,670 --> 01:06:27,329
tested against that because it's the

1486
01:06:25,170 --> 01:06:29,849
gold standard and it's found to be just

1487
01:06:27,329 --> 01:06:31,230
as good or slightly better and then

1488
01:06:29,849 --> 01:06:32,969
something else gets tested against that

1489
01:06:31,230 --> 01:06:34,829
new gold standard more sudden we've got

1490
01:06:32,969 --> 01:06:36,209
something that's absolutely fantastic

1491
01:06:34,829 --> 01:06:40,340
but probably if you tested against the

1492
01:06:36,210 --> 01:06:44,130
share it may not be that beneficial but

1493
01:06:40,340 --> 01:06:47,579
in you don't have to do a sham trial

1494
01:06:44,130 --> 01:06:50,460
recently they did a great study in

1495
01:06:47,579 --> 01:06:52,440
surgery looking at appendectomy and

1496
01:06:50,460 --> 01:06:56,280
still today if you present to a hospital

1497
01:06:52,440 --> 01:06:58,800
in Sydney with pain and signs consistent

1498
01:06:56,280 --> 01:07:00,540
with appendicitis you will have your

1499
01:06:58,800 --> 01:07:02,190
appendix removed and you will have it

1500
01:07:00,539 --> 01:07:05,730
removed as a matter of some degree of

1501
01:07:02,190 --> 01:07:07,079
urgency and yet a randomized control

1502
01:07:05,730 --> 01:07:09,840
trial published in the British general

1503
01:07:07,079 --> 01:07:12,400
surgery this year randomizing patients

1504
01:07:09,840 --> 01:07:16,610
to surgery or antibiotics

1505
01:07:12,400 --> 01:07:18,800
showed in no difference in the treatment

1506
01:07:16,610 --> 01:07:20,750
between the two groups except that the

1507
01:07:18,800 --> 01:07:22,310
complication rate was higher in the

1508
01:07:20,750 --> 01:07:23,929
surgically treated group as you would

1509
01:07:22,309 --> 01:07:25,670
probably expect yeah because they get

1510
01:07:23,929 --> 01:07:27,199
adhesions all sorts of late

1511

01:07:25,670 --> 01:07:28,849
complications from having an operation

1512
01:07:27,199 --> 01:07:31,159
so you want to try and avoid so do as

1513
01:07:28,849 --> 01:07:33,769
much as possible there's so many areas

1514
01:07:31,159 --> 01:07:35,420
where surgery is just not done anymore

1515
01:07:33,769 --> 01:07:37,849
where it used to be done before is

1516
01:07:35,420 --> 01:07:40,430
standard as a trauma surgeon when I came

1517
01:07:37,849 --> 01:07:43,009
here every trauma patient that came in

1518
01:07:40,429 --> 01:07:44,690
that had a bleeding abdomen had their

1519
01:07:43,010 --> 01:07:46,040
abdomen open and had their spleen taken

1520
01:07:44,690 --> 01:07:48,470
out and their liver packed and

1521
01:07:46,039 --> 01:07:50,719
everything else done in now it's really

1522
01:07:48,469 --> 01:07:52,369
done you just leave them alone and they

1523
01:07:50,719 --> 01:07:54,529
tend to do fairly well and he sounds to

1524
01:07:52,369 --> 01:07:55,789
me like you like that optional you like

1525
01:07:54,530 --> 01:07:57,140

the fact that that's odee it's

1526

01:07:55,789 --> 01:07:59,000
progressing yeah well it's just

1527

01:07:57,139 --> 01:08:03,379
consistently I'm still waiting to be

1528

01:07:59,000 --> 01:08:04,730
shown the the study that shows oh this

1529

01:08:03,380 --> 01:08:07,400
operation we were doing actually was

1530

01:08:04,730 --> 01:08:10,369
good and I still haven't seen that study

1531

01:08:07,400 --> 01:08:12,950
I just keep seeing operations fall by

1532

01:08:10,369 --> 01:08:14,719
the wayside but then as new technology

1533

01:08:12,949 --> 01:08:16,130
come along new operations get introduced

1534

01:08:14,719 --> 01:08:19,099
without necessarily going through the

1535

01:08:16,130 --> 01:08:21,230
same oops but could that be because the

1536

01:08:19,100 --> 01:08:22,520
studies are conducted conducted in those

1537

01:08:21,229 --> 01:08:24,979
areas where there's a level of

1538

01:08:22,520 --> 01:08:26,420
uncertainty amongst the surgeons could

1539

01:08:24,979 --> 01:08:27,619
it be there's a certain bias down the

1540
01:08:26,420 --> 01:08:29,569
results you're saying you haven't seen a

1541
01:08:27,619 --> 01:08:32,029
successful trial but perhaps it's

1542
01:08:29,569 --> 01:08:35,000
because those miles that where it's

1543
01:08:32,029 --> 01:08:38,329
quite clear that to everybody involved

1544
01:08:35,000 --> 01:08:40,250
there's benefits not just too few best

1545
01:08:38,329 --> 01:08:43,430
you just possibly I think that's a good

1546
01:08:40,250 --> 01:08:45,109
point but gee you know appendicitis

1547
01:08:43,430 --> 01:08:46,970
that's something where there's just no

1548
01:08:45,109 --> 01:08:48,319
argument I mean you ask any surgeon you

1549
01:08:46,970 --> 01:08:51,470
got a pen oh so take your pen Excel i

1550
01:08:48,319 --> 01:08:53,539
mean it's infected it will get worse and

1551
01:08:51,470 --> 01:08:56,900
it will rupture and it will mean it's

1552
01:08:53,539 --> 01:09:02,060
biological with you can't argue against

1553
01:08:56,899 --> 01:09:03,379
that and yet apparently you can but no I

1554
01:09:02,060 --> 01:09:05,480
don't think there's much uncertainty and

1555
01:09:03,380 --> 01:09:10,010
even with studies that show that surgery

1556
01:09:05,479 --> 01:09:12,229
is not necessarily required they're

1557
01:09:10,010 --> 01:09:15,400
still operate on them is the honda

1558
01:09:12,229 --> 01:09:17,389
studies done there's no uncertainty I

1559
01:09:15,399 --> 01:09:18,889
don't know it's something about being a

1560
01:09:17,390 --> 01:09:20,900
surgeon you have to be fairly certain

1561
01:09:18,890 --> 01:09:22,000
I've got things and you have to make

1562
01:09:20,899 --> 01:09:25,210
decisions as to

1563
01:09:22,000 --> 01:09:30,579
your hand must not shiver sure has not

1564
01:09:25,210 --> 01:09:32,170
steak we have to to end now in thank you

1565
01:09:30,579 --> 01:09:36,399
very much for being on the skeptic zone

1566
01:09:32,170 --> 01:09:38,289
and hopefully we'll have time to ask you

1567
01:09:36,399 --> 01:09:41,829
some more questions some other time what

1568

01:09:38,289 --> 01:09:43,149
does it thanks very much thank you after

1569
01:09:41,829 --> 01:09:45,220
listening to the interview while editing

1570
01:09:43,149 --> 01:09:47,048
it I realized that some issues that

1571
01:09:45,220 --> 01:09:49,720
would be important to most skeptics were

1572
01:09:47,048 --> 01:09:51,130
not covered so I contacted en again by

1573
01:09:49,720 --> 01:09:54,520
email and ask him to the following

1574
01:09:51,130 --> 01:09:56,380
questions one since you dispute that

1575
01:09:54,520 --> 01:09:58,570
scientific medicine is responsible for

1576
01:09:56,380 --> 01:10:02,130
the increase in life expectancy what

1577
01:09:58,569 --> 01:10:05,380
benefits has it provided to society to

1578
01:10:02,130 --> 01:10:07,840
similarly for antibiotics we saw it had

1579
01:10:05,380 --> 01:10:09,550
no effect on the decline in TB yet it is

1580
01:10:07,840 --> 01:10:11,680
common knowledge that antibiotics have

1581
01:10:09,550 --> 01:10:14,170
saved millions of lives is this common

1582
01:10:11,680 --> 01:10:17,860

knowledge wrong if it is what benefits

1583

01:10:14,170 --> 01:10:20,560

has antibiotics provided three we have

1584

01:10:17,859 --> 01:10:21,939

not discussed vaccines per se so could

1585

01:10:20,560 --> 01:10:23,380

you tell me what you think of the debate

1586

01:10:21,939 --> 01:10:27,219

about the efficacy and safety of

1587

01:10:23,380 --> 01:10:29,079

vaccines this was Ian's response the

1588

01:10:27,220 --> 01:10:30,520

benefit of society from medicine is an

1589

01:10:29,079 --> 01:10:32,350

interesting question taking out the

1590

01:10:30,520 --> 01:10:34,030

question of mortality the knee-jerk

1591

01:10:32,350 --> 01:10:36,520

response would be relief of suffering

1592

01:10:34,029 --> 01:10:38,619

from things such as joint replacement

1593

01:10:36,520 --> 01:10:41,320

surgery and even simple things like

1594

01:10:38,619 --> 01:10:43,239

painkillers and antidepressants it with

1595

01:10:41,319 --> 01:10:44,500

recent research showing the twenty-five

1596

01:10:43,239 --> 01:10:46,840

percent of Australian and knee

1597
01:10:44,500 --> 01:10:48,279
replacement recipients stating that they

1598
01:10:46,840 --> 01:10:50,890
would not have had the procedure given

1599
01:10:48,279 --> 01:10:52,779
their time over with now narcotic

1600
01:10:50,890 --> 01:10:54,789
analgesic complications and addiction

1601
01:10:52,779 --> 01:10:56,439
being such a problem and with recent

1602
01:10:54,789 --> 01:10:58,449
questions over the effectiveness of

1603
01:10:56,439 --> 01:11:00,069
antidepressants not to mention the

1604
01:10:58,449 --> 01:11:02,139
increase in suicide rates in younger

1605
01:11:00,069 --> 01:11:05,049
patients I am not sure how to answer

1606
01:11:02,140 --> 01:11:06,840
that question as always it comes down to

1607
01:11:05,050 --> 01:11:09,190
the balance between benefit and harm I

1608
01:11:06,840 --> 01:11:11,619
think their areas in medicine where

1609
01:11:09,189 --> 01:11:13,479
there is clear benefit examples would be

1610
01:11:11,619 --> 01:11:15,609
antibiotics for simple infections

1611
01:11:13,479 --> 01:11:17,559
anesthesia and simple analgesics and

1612
01:11:15,609 --> 01:11:20,319
immunization programs for conditions

1613
01:11:17,560 --> 01:11:22,810
like smallpox now eradicated polio and

1614
01:11:20,319 --> 01:11:24,549
measles but we must also accept that

1615
01:11:22,810 --> 01:11:26,860
their areas where medicine does little

1616
01:11:24,550 --> 01:11:28,690
good and actually does harm particularly

1617
01:11:26,859 --> 01:11:31,389
in my field of surgery as we discussed

1618
01:11:28,689 --> 01:11:32,829
an interesting perspective on this is

1619
01:11:31,390 --> 01:11:35,100
given by the Nobel Prize winning

1620
01:11:32,829 --> 01:11:37,140
economist Amartya Sen

1621
01:11:35,100 --> 01:11:40,260
his 2002 article in the british medical

1622
01:11:37,140 --> 01:11:42,869
journal titled health perception versus

1623
01:11:40,260 --> 01:11:44,940
observation he noted that the quality of

1624
01:11:42,869 --> 01:11:47,250
life is relative to what you are used to

1625

01:11:44,939 --> 01:11:49,319
and that people in the poorest parts of

1626
01:11:47,250 --> 01:11:51,270
india actually write their quality of

1627
01:11:49,319 --> 01:11:53,819
life as similar to those in better off

1628
01:11:51,270 --> 01:11:56,040
areas Carl Sagan asked a similar

1629
01:11:53,819 --> 01:11:58,649
question when you asked if we the human

1630
01:11:56,039 --> 01:12:01,380
race were any happier because of science

1631
01:11:58,649 --> 01:12:03,269
not just medicine are people happier

1632
01:12:01,380 --> 01:12:05,279
less stressed or more satisfied with

1633
01:12:03,270 --> 01:12:09,000
their lot than the average person 100

1634
01:12:05,279 --> 01:12:12,269
200 or 1000 years ago probably not is my

1635
01:12:09,000 --> 01:12:13,949
answer specifically about immunization I

1636
01:12:12,270 --> 01:12:15,690
think that this is one of those areas

1637
01:12:13,949 --> 01:12:17,099
where there is a perplexing and

1638
01:12:15,689 --> 01:12:19,889
disproportionate response to the

1639
01:12:17,100 --> 01:12:21,780

question of harm common immunisations of

1640

01:12:19,890 --> 01:12:23,820

children have a high benefit to risk

1641

01:12:21,779 --> 01:12:26,189

ratio but there is a strong reaction

1642

01:12:23,819 --> 01:12:28,199

against the potential harm at the cost

1643

01:12:26,189 --> 01:12:30,539

of ignoring the benefit this is

1644

01:12:28,199 --> 01:12:32,699

perplexing because if I raise the same

1645

01:12:30,539 --> 01:12:34,829

questions of something else topical like

1646

01:12:32,699 --> 01:12:36,539

cancer screening or surgery where there

1647

01:12:34,829 --> 01:12:38,460

is a real possibility of the harm while

1648

01:12:36,539 --> 01:12:42,210

wearing the benefits nobody wants to

1649

01:12:38,460 --> 01:12:43,859

know so this was Ian's response and I'd

1650

01:12:42,210 --> 01:12:45,840

like to thank Ian very much for the

1651

01:12:43,859 --> 01:12:47,429

extensive interview and for the amount

1652

01:12:45,840 --> 01:12:49,970

of time and thought he had given for the

1653

01:12:47,430 --> 01:12:49,970

skeptic sound

1654
01:12:50,430 --> 01:12:52,490
you

1655
01:12:59,319 --> 01:13:03,948
well thank you for listening to this

1656
01:13:01,279 --> 01:13:05,539
episode of the skeptic zone don't forget

1657
01:13:03,948 --> 01:13:07,969
if you found that interview interesting

1658
01:13:05,539 --> 01:13:11,149
and I sure did please come to skeptics

1659
01:13:07,969 --> 01:13:13,399
own TV and let us know your comments

1660
01:13:11,149 --> 01:13:16,129
next week the full shows back again with

1661
01:13:13,399 --> 01:13:19,069
Stefan dr. Richie reports a grain of

1662
01:13:16,130 --> 01:13:24,889
salt and the think tank until then it's

1663
01:13:19,069 --> 01:13:27,319
goodbye from Richard Saunders you've

1664
01:13:24,889 --> 01:13:31,940
been listening to the skeptic zone visit

1665
01:13:27,319 --> 01:13:34,399
our website at wwc a petting zoo TV for

1666
01:13:31,939 --> 01:13:36,719
comments contacts and extra video

1667
01:13:34,399 --> 01:13:40,349
reports

1668
01:13:36,720 --> 01:13:40,350
us kids

1669
01:13:51,100 --> 01:13:53,160
Oh

1670
01:13:55,460 --> 01:13:57,520
you