Rural and Remote Medicine

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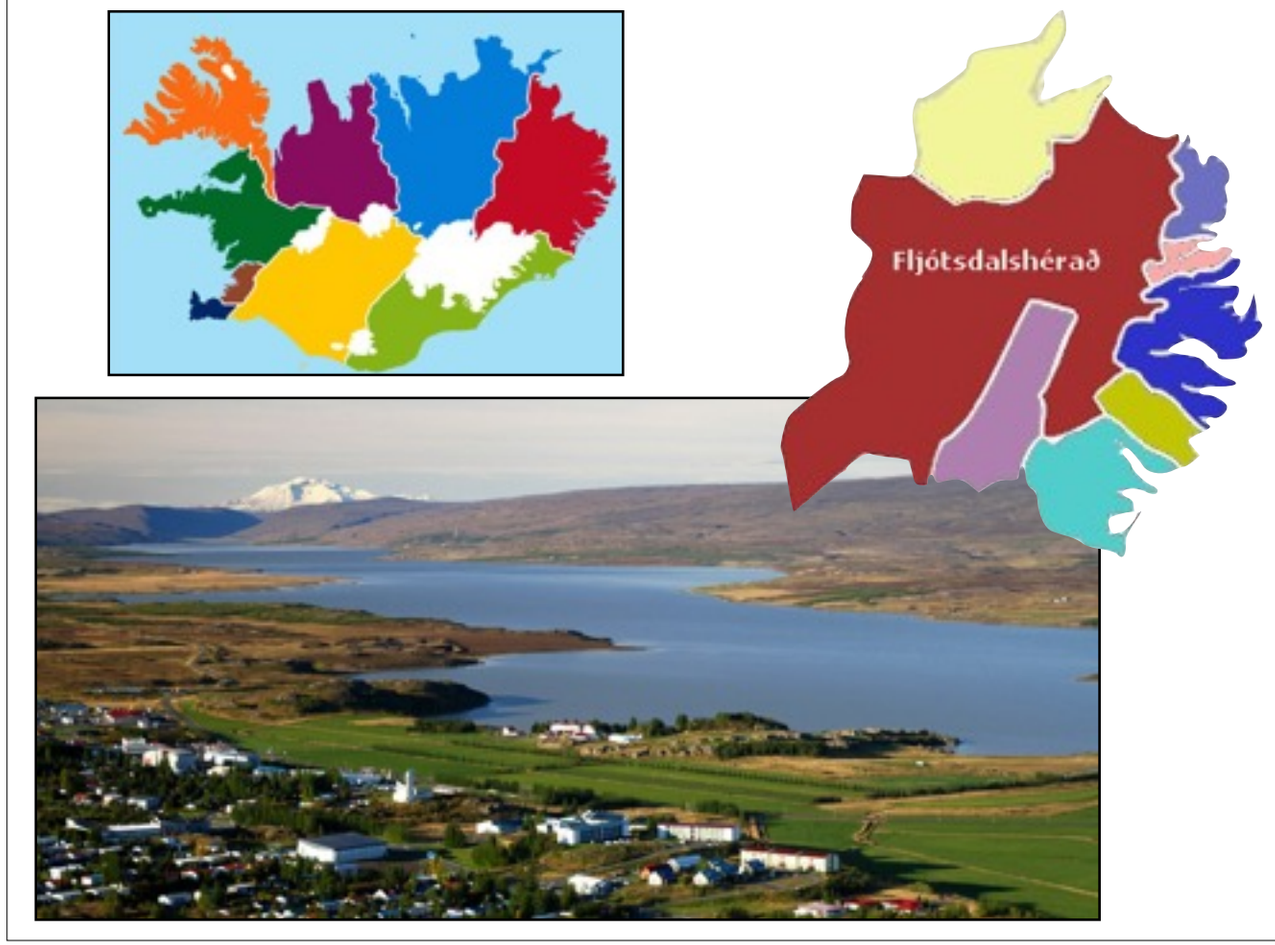
Dear ladies and gentlemen.

I am honoured to have the opportunity to address this seminar.

Jeg beklager at jeg ikke snakker skandinavisk, men det er næmmere for mig at sige hvad jeg vil sige i engelsk.

But my name is Eyjólfur Þorkelsson, I'm a GP Registrar in Egilsstaðir in East-Iceland. And I want to be a rural doctor.

I might take advantage of your tolerance, and you might ask where is he going with all of this, but I ask you to bear with me, at least for a while…



First - a brief overview of Icelandic geography: Located on the peninsula in the South-West, Reykjavík and its surrounding boroughs, hold 2/3 of the total population. Include a 40-mile-radius and you have 3/4 of the population. The biggest town outside of that area is Akureyri, located in the blue area in the North.
East-Iceland is the part depicted in red in the upper left photo - far, far away from Reykjavik.

To the right you can see the local counties of East-Iceland. Egilsstaðir, that lovely town shown in the bottom picture, is located in the big red county. The area served by the 5 doctors of Egilsstaðir encompasses all that county and two smaller ones as well, the lavender and violet one. In all, that is an area of 10.800 sq. km, some 4.200 sq. miles, which is one-tenth of the total area of Iceland. The population is around 3600, of which 2700 live in Egilsstaðir. In 2012 we had almost 9000 visits to GPs, 11000 phone calls and just over 500 house calls by GPs.
But why did I choose to come and practice there - in the far East.

Because the country roads they took me home.

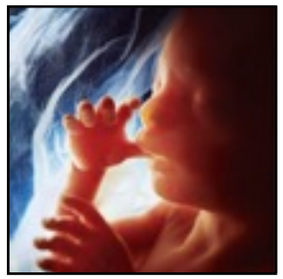
For home is where the heart is, and my heart beats in the small town of Seyðisfjörður

Who are you?

- I was born and raised in Seyðisfjörður
  - small town of 800 inhabitants
- My mother grew up there.
- My father was raised in a nearby village
- My mother is a midwife and delivered many babies
  - the epitome of a rural practitioner

I come from a rural background, being born and raised in a small town in the vicinity of Egilsstaðir, the same town as my mother grew up in and my father grew up in an even smaller village nearby.
When I look back now, I find my mother, the local midwife, somewhat the epitome of the rural practitioner. Through the years we have talked much about what it feels like to be on your own, having the nearest back-up miles away, how exposed you are, professionally and socially and yet how you can feel, in that exposure, so very isolated - again, socially and professionally.

When I decided to be a rural GP



- My mother's book "A Child is Born"
  - by Swedish photographer Lennart Nilsson
- Growing up in a declining rural town I felt socially accountable
- A new doctor moved to Seyðisfjörður, to whom I could very well relate

I can't precisely remember when it occurred to me to become a doctor, but many of my early memories are related to browsing through my mother's books. Especially vivid are those concerning the book "A Child is Born", containing spectacular photos of human zygote, embryo and fetus. So my fascination with human anatomy and development started early.

Also, a child growing up in a small town which once was bustling but now is in decline, truly senses the down-heartedness of the adults. So coming of age you ask "How can I be of use to my community?" My answer to that question was to study for a profession which would allow me to reside wherever I wanted - well not "wherever" but in a very, very special town called Seyðisfjörður.

A pivotal point was when a new GP moved to town. A young man raised in a nearby small town, who knew my father from when they were in secondary school and had a boy of my age. He was, and has been, a huge inspiration for me and after secondary school, I enrolled in Medicine in order to become a rural GP.

When I gave up on becoming a rural GP

- The Medical Faculty's lack of enthusiasm for GP
  - let alone rural GP
    - 5 days in 6 years
- I felt support and good-will at the ENT department where I worked while still in school.
- I felt overwhelmed in my first job after graduation
  - a rural health care centre near Reykjavik

However, after my graduation I had all but given up my rural ambitions. I believe none of the Icelandic delegation will be surprised, when I say: In my experience the medical school in Reykjavik, is not burdened with enthusiasm for primary care. A medical school where management of hypertension is taught by cardiologists, back pain by neurosurgeons and formal introduction to general practice is left till the last year - cannot claim to provide students with an thorough understanding of general practice. Let alone rural general practice where mandatory rural experience is only 5 days in these 6 years, although longer elective periods are allowed in the district hospital in Akureyri. I believe - well - hope things have changed but I'm too old to believe in Santa Claus

So not only was rural General Practice virtually invisible, but I also got a part time job at the ENT ward where I felt well supported by my supervisors and the tasks were interesting. So I had set my sights on ENT.

Yet, there was still a generalist stirring in me so I took a summer job in a rural health care near Reykjavik. It was busy - busy - busy, especially the after hours shifts. Also, the majority of the specialists were on holiday and although I knew of their support I never felt it as I did in the ENT ward. What I did feel were palpitations, diaphoresis, and uneasy sleep. At that point, I longed for the safety of reductionist subspecialisation, and I thought my rural aspirations had altogether been put to rest.

When my rural interest was reignited

- I felt supported and believed in by a rural GP
  - Clinical work interesting and manageable
- Current mentor asked me to come to Egilsstaðir
  - support, challenge and acceptance
- Akureyri district hospital gave me opportunity to hone my generalist skills
- Rural Health action group

Luckily they were only dormant and a twist of events led me to work in a rural health care in the East, near my hometown. There, I felt the tasks manageable, varied and interesting but not the least, I felt support from my supervisor. And he often mentioned that he believed in me becoming a GP. So I decided to change course, enrolled in General Practice and got a job at an urban health care centre.

It's nice to feel important, and I really did feel important when my current mentor phoned me and asked me to come and work in Egilsstaðir. There I felt again the same support, challenge and acceptance as I had felt during my ENT years. Acceptance not only from colleagues but patients as well, many of whom express their appreciation of having a "local" doctor or tell me how they knew my parents, grandparents or other kinsmen.
I completed my in-hospital training in Akureyri district hospital, a small yet busy hospital which gave me an experience that I believe is invaluable for a generalist. There I also met people participating in a transnational project working to increase the recruitment and retention of health care workers in rural areas. So we formed an action group of health care workers from Northern and Eastern Iceland, lobbying for a formal education and acknowledgement for rural practitioners.

Why this lengthy prologue?

- Research has shown these factors to be very important when recruiting doctors to rural areas
  - rural background
  - feeling connected to the rural population
  - role models
  - clinical work interesting
- Factors antagonising recruitment or retention
  - lack of collegial support
  - feeling overwhelmed in A&E situations
  - lack of rural experience in medical school

So why am I giving you this brief - or not so brief - autobiography?
Because it is not just my story - but the story of many others. The story of many successful and unsuccessful recruitment and retention.
Many studies have been conducted to understand why some doctors decide to stay and play while others pack and go. A recent literature review published in the Canadian Journal of Rural Medicine found these factors, along with others, crucial for success or failure.
It is important to have experienced the rural life as a child or adolescent. If one becomes able to sense the close intertwining of the various roles people play in small communities, you could speculate that he could make better use of the social capital so often abundant in rural areas. And from using and adding to the very same social capital, springs the social accountability.
Role models are extremely important and can be crucial in the young professional's life - as an inspiration, as guidance and as support.

A rural experience of only 5 days out of the 1.638 spent in medical school is of course close to nothing. Yet, these 5 days made a fundamental difference for me. They were my first encounter with the Health care centre in Egilsstaðir and where I first met my current mentor. My first encounter with the place where I want to stay and the persons whose shoes I hope to fill. However, if it hadn't been for a series of unforeseen events, they wouldn't have mattered at all.

Can we draw some conclusion from this?

- Medical miseducation?
- Young doctors can be influenced to take a particular pathway
- Working conditions and preparedness matter
- Sensing support, shared responsibility and ease of consultation relieves a lot of pressure

Medical education matters - it matters what is taught, how it is taught and possibly most importantly - what isn't taught.

It is possible to influence young doctors to work in a certain surrounding.

Exposure and much hassle can avert doctors from working in rural areas especially if they feel they're out of their league

Sensing support and having easy means of consultation is extremely important as it counteracts the stress of feeling responsible for the health of a patient, his family or even the whole community.

So, in my opinion we must give current and aspiring rural practitioners a way to acquire the skills needed for work in rural areas in a structured way. To do that, we must acknowledge that rural work has differences when compared to urban work. Therefore - we must teach them rural medicine.

Is it really a subspecialty?

But what is it? Can it be distinguished from “Urban Medicine” and more importantly - should it be?

Subspecialty…?

- Rural medicine acknowledges that clinical work in rural settings have differences compared to urban areas
- Smaller communities have need for different medical service than larger communities, and doctors in those communities have need for different resources than doctors in larger communities.

Working in a rural area is a bit like being in love - very hard to define or describe but when you are there, you know it for certain.
All jokes aside - I haven't been able to locate a common international description of rural medicine, other than taking place rurally.
So - Is rural medicine only medicine practiced in a rural setting? In a way - yes - but in the same time - no! Because there is a lot more to it than just counting heads in a given area. Rural practice has many aspects that differ from urban practice, Rural doctors need resources different from their colleagues in the city and the dynamics between the doctor and the community he works in - and lives in - is different.

or Superspecialty?

- In rural medicine the personal and professional roles of doctor and patient, and their families, entwine in need and provision of general medical care as well as health promotion, both in- and out-of-hours, in a small community which influences their common experience.
  - holistic medicine at its purest?

- “ACRRM considers Rural and Remote Medicine to be the discipline that represents the fullest expression of the specialty of general practice.”

Australian College of Rural and Remote Medicine

These dynamics can be conflicting and confusing but it also adds a whole new perspective to clinical practice.

So, I want to be so bold as to present my attempt to define rural medicine

- LESA… -

The Australian College of Rural and Remote Medicine even goes so far as proclaiming that Rural and Remote Medicine is the discipline that represents the fullest expression of the specialty of general practice…

General Practice rocks!

Which is saying a lot…

Where does this come from?

- Some states of the Mid-West in the 70's
- Rising interest just before the new millennium
  - Australia, Canada, Scandinavia, Iceland
- Australia took the lead, followed by Canada
  - Roger Strasser
    - visited Iceland in 1998

The first formal responses to address the difference in urban and rural practice seem to come from the Mid-West USA - N-Dakota, Minnesota and Wisconsin. There rural doctors formed associations in the early seventies.
In the nineties however there was a big uprising when societies of rural medicine were created in the Nordic countries, England and Canada, with Australia leading the front where Rural and Remote Medicine is now fully acknowledged as a specialty within General Practice. One of the leaders of that movement in Australia was Dr. Roger Strasser which now has moved across the globe and currently lives in Canada. In 1998 he visited Iceland and in the wake of that visit work began on formulating a way to better prepare doctors for rural practice. That work lay dormant for more than 10 years but is now gathering momentum as we better understand that this is a good way to provide doctors to the rural areas.

Are rural areas really so special?

Need we specially educate doctors to work there?

[Kúnstpása]

A just question - both of them. Each one deserves a thorough answer.

An Icelandic fishing village

“The village relies on fishing, they all depend on the Cod.

They work from dawn to dusk all week, covered in salt and blood.

They have their place at the factory, but are jittery in their bones,

All the young ones have sought their dreams, far away from home”

Bubbi Morthens

Before we begin, I apologise for imposing upon you my humble attempt at translating a famous Icelandic rock song from the 80’s, describing life in a declining fishing village.

-LESA-

I ask you to keep this image in mind while I try and answer the question.

Why a specialty?

- Rural practice differs from urban practice in ways which may be classified into three categories
  - job differences
  - medical differences
  - community differences

- To tackle these differences and provide adequate service, doctors need training, preferably in a structured educational model

Rural practice has it’s differences from urban practice. Of course there are more things we have in common than set us apart, but those factors that truly are different can be put in at least three categories - job differences, medical differences and community differences

So to provide top quality service doctors must firstly understand these differences and secondly be prepared to meet them.

Job differences

- Working Out-of-hours
  - unrestricted access to doctors, around the clock
  - the doctor probably knows the patient well
- House calls and First response
  - working in an ambulance - moving or stationary
  - outside the "comfort zone"
  - huge amount of information

Generally speaking, rural doctors have greater out-of-hours workload than the colleagues in cities. Although one could say they’re working the whole time, it is necessary to keep “day-time problems” at day-time and “out-of-hours problems” for the shifts. It is specially important when keeping in mind that during the shifts there is usually a direct and uncontrolled access to the doctor. The good thing about these frequent shifts and uncontrolled access is that the doctor usually knows the patient well and can put his complaint in a certain context, which often helps to decide what can wait what cannot.
The rural GP is an active and important factor in the first response team and as such needs to know his way around an ambulance, possibly while driving at 90 km/hour. House calls, which mostly occur when urgent medical care is needed, leave the doctor in a vulnerable position, far from the office - stressful but also very informative.

Job differences

- Transportation
  - Mode? Distance? Conditions?
  - Transporting is expensive - so is not transporting
- Exposure
  - Social
    - one will become a popular topic of discussion
  - Professional
    - highly variable support from other professions
      - active collegial support very important
      - observational / educational visits
        - social and professional support

Travelling distance is another factor the rural doctor has to take into consideration - how far away is the nearest lab or CT scanner? If I send the patient now, how much discomfort will that be for the patient and how much will it cost if the results turn out to be insignificant? On the other hand - how much will it cost if I don't send him now - will I have lost the therapeutic window? Will I even be able to send him if I wait?

But one of the biggest differences - and possibly the hardest - is the exposure and isolation. Nobody want's to be the major topic of discussion but also one often feels all too well that there are few to rely on except you and your (often inexperienced) clinical nose. Not surprisingly, one of the greatest threat to retention of medical personnel is their feeling of professional isolation.

Medical differences

- The health care centre and the GP is truly the frontline of the health care system
  - fulfilling but in the same time demanding
- Certain problems are more commonly encountered in the rural clinic
  - acute medical or surgical cases
  - minor surgery
  - obstetrics
  - ...even anaesthesia

I have the feeling that people in the countryside see their health care centre more as the obvious first stop than people in the capital area. So, there they present with any medical (or distantly related) problem. Professionally that is very interesting but also challenging.
I believe nobody will argue when I say that certain problems are more likely to come to the rural doctor than his urban colleague. Acute illness, minor surgery, threatening spontaneous delivery…all these things come to his attention, whatever the hour. The doctor might even have to give a short - or not so short - general anaesthesia and intubate and ventilate the patient

Medical differences

- Traumatology (minor or major)
  - Hobby related accidents
    - guns, skiing, motor vehicle...
  - Dangerous roads
    - Læknablaðið 98/2012
- However, theses cases are often far between, so the opportunities for hands-on experience, let alone when in training, are slim
  - structured approach necessary!

Trauma is probably the most common difference between rural and urban work, ranging from minor cuts to multiple injuries. They happen while taking part in a hobby or when driving between places. Many often forget that the most dangerous roads are located in rural areas and secure transport is a major public health issue.

But although these problems can occur whenever, two really comparable cases are usually few and far between. Therefore, we need to have a structured programme to prepare people and more importantly to ensure continuing education and help maintaining abilities.

Community differences

- Lower percentage has higher education compared to urban areas
  - higher percentage has elementary education or less
- Occupational hazards - machinery, chemical, animals
  - agriculture, fishing, forestry, factories, (mining)
- Some studies have shown more smoking and less physical activity
- Different age and sex distribution
  - often fewer people (women!?) aged 25-40

Rural communities are also differently composed than urban communities, having lower percentage of people that have completed university education. On the other hand they have higher percentage of people working under hazardous conditions in farms, at sea or in the wild. In anglo-saxon papers, higher percentage of smoking and less frequent physical exercise is reported. Last but certainly not least the age and sex distribution is different where young persons - women in particular - are relatively fewer in rural areas

An Icelandic fishing village

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If we return to the image I depicted earlier - how does that fit into what I have just described?
Most work in primary production or industry where conditions, machinery - animals even - often are very hazardous. Age distribution - the young ones go to get education and not nearly all of them return.
But why are the people anxious - jittery in their bones? Is it because they feel high sense of connection to their community and have concerns how it affects the value of the community when young people move away.

Social Accountability

- Where it has been studied, rural areas have more abundant social capital than do urban areas
  - Trust and reciprocity ; willingness to help
  - how goods benefit more than just their owner

- Every factor mentioned so far, positive or negative, affects our approach to health promotion and prevention
  - possibly different measures are needed to get results in rural and urban settings

Because rural communities have high value to them. In my opinion no lesser value than urban areas. The community is composed differently but empathy and connectedness is abundant.

Social capital is a relatively new concept in the social sciences which tries to figure how much trust there is in a particular community, how willing people are to help others without necessarily expecting something in return. Not surprisingly, it finds that where people share the same conditions of daily life and see each other regularly, social capital increases. And ever more data accumulates on how it plays a significant role in health promotion, salutogenesis and thereby - public health.

Of course every socio-economic factor I've mentioned so far affects how one addresses prevention and health promotion. So the same means to better public health might not be equally productive in rural and urban settings. A consideration definitely important for the rural doctor aspiring for more health in the community.

To make a Rural GP

So how to make this progressive rural doctor…well maybe not THIS one in particular…

There are many ways to make a Rural GP - and not all of them we would call…preferable.

We could throw young doctors into the deep end of the ocean - which has been far too common - with the presumptive outcome depicted in our distinguished colleague in Portwenn, on the brink of burn-out.

Or we could take a more constructive approach, let the end define - not justify - the means. To decide what elements we seek in a rural practitioner and formulate a comprehensive education to provide them with these particular skills. But how?

How do I become a specialist in RRM

- Tasmanía - www.utas.edu.au
  - Peter Arvier
- N-Ontario - www.nosm.ca
  - Roger Strasser
- Scandinavia…?
  - pending… ;)

To be a fully qualified and acknowledged Rural Doctor one could fly over a continent or two and study for example in Tasmania with Peter Arvier or slightly closer in N-Ontario in Canada, where Roger Strasser has been a primus motor in organising a new medical school. There generalism is embraced and the local communities take an active part in the provision of medical education. Research has shown that not only are they ranking high in quality of the education but recruitment and retention of doctors in rural areas is on the right track.

In the nordic countries we haven't had a formal accreditation of rural physicians although in Norway and Sweden they are actively promoting and training doctors to work in rural areas. In Iceland both the General Assembly of the Icelandic Medical Association and the College of General Practitioners have concluded that Rural Medicine should be a formally acknowledged specialty. And as I mentioned earlier, I am a member of an action group lobbying for Rural Medicine and I allow myself a certain level of optimism that soon we might be formulating our version of a rural curriculum - to be implemented in practice.

A rural Curriculum?

- Mandatory
  - Rural work under supervision
  - Public health and social medicine
  - Acute psychiatry and forensic medicine
  - Anaesthesiology and Intensive Care
  - Acute medicine and Trauma
  - Use of ultrasound
  - Obstetrics - ALSO and PALS
- Elective
  - Gynaecologic intervention
  - Medical / surgical intervention
  - Occupational medicine
  - Telemedicine

Which could look something like this.

Of course rural education needs to take place in a rural setting, with guidance and supervision of a skilled local physician. Key topics to be included apart from ordinary rural general practice entail a thorough knowledge about public health and social medicine, as well as psychiatric emergencies and the legal aspects of medical care. Confidence in giving general anaesthesia in stable and unstable conditions as well as monitoring the critically ill is essential. Intensive revision of the treatment of acute medical and surgical cases as well as traumatology, and the use of ultrasound under these situations should be included. Rural practitioners should also be skilled in the basics of childbirth, having delivered few babies on their own and should receive training in acute life support in obstetrics and paediatrics. One would also expect that courses in occupational medicine, telemedicine and common medical or gynaecologic interventions, or even minor surgery could be offered.

Is there need for RRM?

- Yes! We must frame in that rural practice is exciting and manage-able, rather than stressful
- Yes! We require normal turn-over and sufficient supply of GPs
  - rural as well as urban
- Yes! We need different methods because there are occupational differences
  - job differences
  - medical differences
  - community differences

So is there need for Rural and Remote Medicine?

I think the rural way of life is deeply embedded in Scandinavian mentality. Even the successful Nordic Cuisine plays on robust rural undertones. Modern medicine, in the way it is mostly being taught and practiced, possibly lacks a generalistic and humanistic view of things. We need to put rurality back into it. We need to do it together and we need to do it soon.
And as we're reminded of these days…

- we must do it before all hell breaks loose…