



Northern Ireland
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Committee for Agriculture and Rural
Development

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Anti-poverty and Social Inclusion:
Mr Trutz Haase

2 December 2014

NORTHERN IRELAND ASSEMBLY

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Members present for all or part of the proceedings:

Mr William Irwin (Chairperson)
Mr Joe Byrne (Deputy Chairperson)
Mr Thomas Buchanan
Mrs Jo-Anne Dobson
Mr Tom Elliott
Mr Declan McAleer
Mr Kieran McCarthy
Mr Oliver McMullan
Mr Edwin Poots

Witnesses:

Mr Trutz Haase

The Chairperson (Mr Irwin): I welcome Mr Haase. I will give you up to 10 minutes to make your presentation.

Mr Trutz Haase: Can I have 15 minutes? Even that might not be enough.

The Chairperson (Mr Irwin): OK. You have come a long way.

Mr Haase: I have come a long way, and I have been coming for over 20 years.

Thanks for inviting me. I feel very honoured to be able to present to you. I actually worked in the Northern Ireland Economic Research Centre from 1988 to 1991, so I am very familiar with the Northern Ireland situation. I built the first regional databases for Northern Ireland and subsequently went South and worked for the Combat Poverty Agency, where I was asked to develop a deprivation index.

At that time in 1988 — most of you were around — something was immediately clear. That was that, in England, there was an agricultural labour force of 4%, whereas it was 8% in Northern Ireland and 16% in the Republic. So, when building a deprivation index, it was immediately clear that I could not simply transfer what had been done in Britain over to Ireland, because it would lack any legitimacy. For me, the question is how we can measure rural deprivation, and I have been working on that for 20 years.

During your previous discussion, it was very difficult to sit there and not say something. However, the question came up about whether we need a separate index for rural areas. I would strongly argue against that, because all you would do is move the question that, ultimately, comes down to resource

allocation outside the remit of the discussion. You have to make some prior arrangement. Let us say that you give 20% to rural and 80% to urban or whatever, and then have a rural deprivation index. Where do you divide that 20:80 or 30:70 in the first place? In other words, we do not need two indices. Instead, we have to think about how we actually measure deprivation, and whether we are aware, when we measure deprivation, that there are different forms of deprivation. That is really where I think the key is.

I want to draw attention to a study by David Coombes. You will remember the Robson index, and it came out as a booklet in two parts. The first was a literature review by David Coombes on all the previous deprivation indices and the Robson index was the second half. In that literature review, David Coombes gave a very nice definition of deprivation; you will see the depth of that in a minute.

I start with the way it is normally defined in Europe, the North, the Republic or whatever. It is:

"People are living in poverty if their income and resources (material, cultural and social) are so inadequate as to preclude them from having a standard of living"

that the rest of society takes for granted. That sounds good, but if you try to operationalise material, cultural and social, you are in deep waters. How do you measure those?

Coombes came up with the following:

"The fundamental implication of the term deprivation is of an absence – of essential or desirable attributes, possessions and opportunities which are considered no more than the minimum by that society."

That sounds almost the same, but think for one moment about the depth of what he actually said here. Think of attributes. Attributes are the colour of your skin, your ethnicity, your health and your wealth. They are all attributes. If you think in mathematical terms, it is a null vector — it rests with you. Interestingly, you can measure that in either census or administrative data. You can look at wealth, health, ethnicity and so on and so forth. They are all variables that can be measured in the person and, therefore, are accessible through survey, census and administrative data.

Now think about possessions. Possessions are what we can draw on you, so it is a vector from there to here. Interestingly, again, you can measure it in the person. You can measure income, or, if you do not have the income, you can take the education, because you can infer the income stream. It does not matter. You have variables that you can measure, again, in the person. Therefore it is accessible through measuring, through survey data, census data and administrative data. That is fine.

Now think about opportunities. Opportunities are obviously a vector from here to there. How do we measure opportunities? Suddenly, you realise that you cannot measure it in the person. Take the example of a rural household with four adults. The household is not poor; there are two cars. The first two people jump into the cars and they can drive 30 miles quicker than I can get through Dublin. It is no problem. Luckily there is a bus, and the third person jumps on the bus and still gets to an urban area. That means that it is the distance and it is the size of the town. The higher the town is in the hierarchy, the more job opportunities, career opportunities, essential services and so on there will be. The fourth person has a disability. Unfortunately, the bus has no ramp, and he or she cannot get on the bus. Now suddenly that person experiences opportunity deprivation. He or she cannot access a job, essential services and so on.

So you suddenly realise that opportunity deprivation is an interaction term out of the attributes and possessions with the locational data, which is effectively a gravity model. Opportunity deprivation comes from the very thing you mentioned earlier: transport. If you go into rural areas and ask people what makes it so difficult there, it is always the interaction of their situation with the access to where things are happening. Some 95% of what characterises rural deprivation is mediated through the difficulty of access to centres of decision, key services and career opportunities. That is what characterises rural deprivation, and it cannot be measured in the individual.

I was paid €60,000 to go out and find measurements for rural deprivation, and I had to go back to client and say that I could not find anything. It is technically not possible. Once you think about it in a conceptual way, you realise that it is conceptually not possible to measure rural deprivation in the individual. Therefore, every index that is based on the counting of poor people will have an urban bias. You have to be clear about that. Therefore, I am no longer surprised that the UK indices, be it the Robson index, the Noble indices and so on, have an urban bias. They try to equate the

measurement of deprivation with the counting of the poor and what you count through administrative records. You cannot measure opportunity deprivation in that way. Therefore, trying to conceptualise rural deprivation in a multi-faceted way of having a deprivation measure that has both the conceptual basis for urban and rural deprivation and measures it in a single comprehensive measurement is where the fault lies. It is not with two different indices. It is a conceptual basis of the index that needs to be constructed.

Take a simple thing like the unemployment rate. Leitrim and Roscommon will always have a low unemployment rate, because what happens in rural areas when there are long-term adverse labour market conditions is that people emigrate and migrate. So what do you have? You have a low unemployment rate, and the unemployment rate is not a measurement to capture rural deprivation. It will understate it.

What does sustained emigration do? First, it will lead to an imbalance in the population. It is the core working-age cohorts that emigrate, so what do you find? You find that older people and young people are left behind, so you have a higher age dependency ratio. Secondly, who is emigrating? It is not just the poorest; quite the opposite, it is the ones who achieve quite well at school, and who develop aspirations beyond what they can fulfil locally. So what do you get? It is the better educated who move away and, in rural areas, you are left with a labour force that is less qualified. That makes the areas less attractive for investment and you have the whole spiral, and so on and so forth.

In other words, we are moving away from measuring deprivation just by counting the poor and are looking at the structural element of what characterises rural deprivation. That is why we came up with the threefold classification. We have three latent concepts. At the core is social class, which is both urban and rural, and which can be measured through occupation, education, housing quality and so on. Then we have labour market deprivation, which is predominantly an urban phenomenon, because that is where the unemployed go in the expectation of a better labour market. Then, to capture rural deprivation, in the absence of an actual model — because we did not get the money to build a gravity model — we used variables that try to encapsulate the demographic decline of rural areas through the sustained out migration and so on.

We look at population loss, the age dependency ratio and the proportion of the adult population with low education. That is a conceptual model. Then the question is this: how many variables do you need? It is very simple. Statistical theory tells you that, if you have those latent concepts and you go into a modelling environment, you need, at the minimum, three variables to measure them. Take four or five — if you take more variables, it will not improve the model. So do we need 30 or 40 indicators? No. Statistical theory tells us, 100% for sure, to look at your dimensionality, then take three to four variables and you are fine. So we are using 10 census variables.

Be very clear when you look at the Noble index that those seven domains are not dimensions. If you have a concept of social class, we know that it will affect your housing, your health, your wealth and so on. Those are domains; they are not dimensions. These are dimensions, which are the underlying driving factors. They can be picked up through the variables. That is why we use confirmatory factor analysis. With that we can fit a model and measure whether the data supports the model, which it does, perfectly. Not only that; we can keep the model constant over successive time periods and therefore get an actual measurement — not just a ranking — of deprivation over successive census periods, which means that we can use it for monitoring and evaluation. That is the basis of the conceptual step that we took. We believe that we can work fantastically with that.

I do not want to overdo my time here, but I have a slide showing population change and so on. That is the age dependency ratio. There is nothing big North/South there. Lone parents are mainly an urban phenomenon — up to 60% or 70% — but, again, there is no big difference North/South. On low qualification you see a slight clustering in the border area, both North and South.

The first interesting variable is high qualification. In the South, there is high qualification in the urban commuter belts. Why is it the belts around the cities? That is where you have rezoning of areas and young couples moving in with dual incomes, relatively high professional status and qualifications. Interestingly, in the North you have a much more diversified spread of high qualification, which is very interesting. Obviously, you have east and west of the Bann, but on top of that you have the access along the motorway, which has stood there for 50 years. In the South, with high qualifications, effectively what happens is that people from rural areas, where we know that the educational outcomes at school are as good as anywhere else, move to the cities for university and do not return. In Northern Ireland, people with high qualifications can access the key labour markets and jobs from anywhere within the North. That is interesting. It is a very important difference.

There is a mirror picture for low social class. For high social class, again, it is the same as with high qualifications. Then we have a massive difference in the unemployment rate in 2011. There was literally twice the rate in the South as in the North, so you have a complete level difference there. Female unemployment is the same. Those are the 10 variables. On persons per room, there is no big story there, just the bed policies in Dublin with billing.

Putting those 10 variables together through those three latent concepts, here is the map that we get. Now something extraordinarily interesting is happening. First of all, to some surprise, the North was more affluent than the South in 2011. That is clearly driven — the average is 0.3. Our index has a normal distribution bell curve. I will come to that later on. We are mapping out here the normal distribution, so the light green and light yellow are the middle field; the blue is the affluent areas; and the yellow and red are the deprived areas. What you see immediately is that the North is more affluent, which is driven by the differential in the unemployment rate in 2011.

More interesting is the urban/rural patterns here. What you see is an extreme urban/rural gradient in the South which does not exist in the same way in the North. That was quite new for me and somewhat unexpected to find such a strong difference in the pattern. Simply, the holes in the urban centres here do not exist in the same way in the North. That is something very interesting. That is not the Noble index, but our index. Strangely enough, when I look at the average for rural areas and I look at the Noble index and ours, it actually comes out as the same. Despite conceptually very clearly holding that our index is superior in capturing rural deprivation, it does not come out with a higher value in rural deprivation for the North. That is quite unexpected, maybe. Let us say that it is a lot of food for thought.

Let me just follow on. The question may therefore not be necessarily about the index. Clearly, there is something about rural areas not getting any funding. Let me draw on that a little bit and finish off with two or three minutes on that. First of all, here we have the different distribution in the North and South. You see the way the mean is higher in the North. Overall, it is a normal distribution, though not within the South itself. This normal distribution becomes very important. Look at this. This is the Northern Ireland small areas (SA). There are 4,537 small areas. I have colour-coded them red and green here — green for rural. The bunching here comes because the Northern Ireland multiple deprivation measure (MDM) index tries just to measure the poor like a one-tailed distribution on a bell curve. It does not try to measure affluence, whereas our index is a continuous index from affluence to deprivation. Therefore, you get this bunching here on the left. Interestingly, when I look at the bottom decile, I see that, on our index, this would be this line. Basically, you see relatively few green areas below that line. On the MDM, it would be to the right of the vertical. You see almost no green there. That is where your tenth percentile is with regard to rural areas. There is a little bit of a difference. Either way, you see that most rural areas are clearly in that quadrant.

If we look at it in terms of distribution, again, you will see here that, on our index, at the level of small areas, I would measure 6.8% for rural areas which are in the bottom decile, whilst 93.2% would be urban areas. If I go to the multiple deprivation measures — here is what I said about the non-normal distribution — you do not have an affluence spectrum in the MDM. It is just the deprivation spectrum. The MDM measures only 2.6% of small areas in the most deprived decile. So there is a little bit — two and a half — of difference, but it is still very minor in terms of rural areas coming in there.

There are a couple of statistics here. This is the 2.6% and 6.8% that I have just referred to. This is when we measure SA. This is the first important point: when you aggregate data, on our index, because it is normally distributed, if an affluent area and a deprived area come together, the value becomes a middle value, whereas on the MDM, because it counts only the poor, affluence will not compensate for deprivation. There is a kind of ideological debate behind that: should it or should it not? I believe that it should because, at the end of the day, they are all area measures. We have to be aware that we will never be effectively counting the poor, but it will always be a likelihood measure. I can go into that debate another day. It is interesting that when we move to ward level, our index actually captures roughly 10% in the bottom decile as rural, while the SA-level measures from the MDM, aggregated upwards, would be half that. If I take the actual ward-level MDM measure, it is only one third of that. So, you see that the conceptual basis translates into different proportions, although it is not radical.

This is actually just mapping out. The dark green areas are the bottom decile. That would be on our index, that would be on the MDM SA level, and that would be on the MDM ward level. So, it is neither here nor there. There is no big story in that. That is after working a lot on that. We have to ask the question differently: whichever index we have, how do we actually work with it in terms of resource allocation? That is what I want to spend the last two minutes on, if you will allow me.

I was asked to develop a resource allocation model with deprivation measures. We started with a roll-out of €40 million for primary health-care centres. You may remember the debate, which Róisín Shortall resigned over because different politicians decided on a different list after they first signed off on it. Then the health service became very angry about that and said, "Trutz, we want to build a resource allocation, not for €40 million, but for the health budget of €10 billion". That is what we are working on at the moment. How do we use a deprivation index? This is very important for rural areas because it is not the fire engine running out or the ambulance service for a social inclusion budget of €40 million here or €100 million there; but how do you effect €10 billion to account for deprivation?

What we have come up with is the following. This is the normal curve from our deprivation index: one standard deviation, two multiplied by 10, so there is a score of -10, -20, -30. Now, think of a small area that has a score of -30, which is, in other words, very deprived. So, these are hungry households — this is the kind of little methodological step — and they will again be normally distributed within their area. In other words, if it is at -30, then 98 out of the 100 will actually be poor, if I take a cut-off point, let us say, in the middle.

Maybe I should make one further point. Let us take a total population model where we have no deprivation. So, the deprivation model will simply count everything for each SA to the left of this line. That is the whole population. However, then I take the slightly deprived model for half the population. As I say, if the area is -30, it will be 98% of the population. If it is -20, it will be this much and so on. As you can see, the more you move up in affluence, the smaller the part of the population that will fall under the area of the curve to the left of your cut-off line.

You can have different models. You can take a low-, medium- or high-deprivation model and you can shift this cut-off line, but the point is that you are not ruling any area in or out. You measure the proportion of each area according to its deprivation score that falls to the left of this line and, therefore, it becomes a gradual measurement that does not have any cut-off points, but which completely accounts for the relative deprivation of each area, as measured by the comprehensive index. That gets you away completely from all the cut-off points and you can then skew any budget, be it for bridge-building, motorway-building, education or health. You can basically start spending the money, through the main spending Departments, accounting for deprivation and using a deprivation measure that accounts for urban and rural deprivation. Then we will be taking a step forward.

The Chairperson (Mr Irwin): Thank you very much for your presentation. You have developed a model that looks at deprivation on an all-island basis and you suggest that Northern Ireland is more affluent than the Republic of Ireland. That is something that we all surmised. Can you provide some reasons why that might be? The difference also extends to rural areas. You mention opportunity deprivation as a major area of difference. Can you explain that, please?

Mr Haase: Yes. The differential North/South, which is three points on the deprivation scale, is clearly the effect of overall employment. You have very strong public sector employment which, during the crisis, provided an effective floor; whereas, in the South, it just fell out. So, I think that that differential may not exist right now, even two or three years later, because unemployment has reduced in the South quite dramatically over the last two or three years, so that that level effect has gone out by now.

In terms of rural areas, I definitely do not see the same gradient: the extremes of people simply leaving rural areas. If you go into a rural area in the South, and you have a class that performed well in a school, you can be sure that 60% of that class will no longer be in the area three or four years later. They will have left and have gone either to the cities or to Australia, Canada, the UK or elsewhere. That effect does not seem to be there in the same way in the North. Behind that are a number of factors. The overall size of the North is simply smaller, and therefore you stay within a certain reach. I think that the building of the motorway in the 1960s made a difference. You can clearly see the axis along the motorway: it has allowed people to live in a rural space while accessing the key urban opportunities. I am talking here about overcoming opportunity deprivation through a better transport network, roadworks and so on. Now, there are good roads in the South, but it is 50 years later, and I do not know what the long-term effect of that will be. I also think that, probably, the Troubles have played a role in a peculiar way. Those who are better off, well educated and in high-earning jobs do not necessarily want to live in Belfast or Derry and, therefore, have maintained a more rural lifestyle; whereas, in the South, you would not see them in the countryside. So, I think that, in a weird way, the Troubles may have contributed. I have nothing direct. Just from looking at it, I would think that those are the factors that, over a 30-, 40- or 50-year period, have resulted in a slightly different settlement pattern in the North, as compared with the South, which is coming out extremely clearly in the statistics.

Mr McAleer: Trutz, you are very welcome to the Committee. In your opinion, what are the main drawbacks of the current methodology that we use in the North?

Mr Haase: I think that its greatest shortfall is in how it is applied. I think that this whole thing of setting a cut-off point leads to different situations left and right of a road and all that. What is the difference? I could go bananas about this whole thing about ranking. If you divide this curve or any normal curve into ranks, you get this effect. Let us say that we go by deciles, for example, 10 deciles. You have five and six left and right of the mean. There is no difference between those. It is a rank difference, but there is no difference. However, between here and here, which is all in the tenth decile, there is a great difference.

I will give you the example of St John's ward in Limerick. In Ireland as a whole, over a 15-year period, we saw third-level education go up from 13% to 32%, which is a two-and-a-half-fold increase. It was incredible, historically, but in St John's ward in Limerick, it went up fivefold from 0.2% to 1%. St John's is the most deprived ward in Ireland. It has a standard deviation of -6, and it has 1% in third-level education. That means that everyone in that area who achieves better leaves, leaving behind no role models, nothing. That is -6 standard deviation. In a ranking, that would be together with here.

A ranking is just a bad thing. The problem is that all those other indices — the Noble index, the Robson index and all that were used before them — cannot do anything better than ranking. They have no methodology to measure deprivation in a comparable way over successive periods because they do not use the methodologies. You have to get away from the ranking.

The resource allocation model works on those pseudo shares. Remember that these are not estimates of the number of poor people; it is building on a deprivation index that includes opportunity deprivation. In a rural area, the people may no longer be there because they have left, but you still measure the deprivation. It is a quasi measure of quasi counting the poor as a measurement of relative deprivation, but it is a structural measure. You then put a value on that for each area, and you then aggregate over your functional areas and get a value. You can use it for primary care areas, library board areas or whatever. You can use it for anything. The point is that you establish the deprivation index at the lowest level of small areas. You then have a sliding scale, which takes into account the real value of difference from the mean. That is an estimate on the reasonable assumption of normal distribution. That then aggregates it, and you have a value of resource allocation. It is not rocket science.

Mr Byrne: That was an excellent academic presentation. In relation to what lessons we are going to learn from it for public policy, what is your advice about resource allocation?

Mr Haase: On a model like this, get away from the ranking and the cut-off points, and get away from it just being used for special budgets. Introduce it as a funding mechanism to main budgets.

Mr Byrne: In other words, are you trying to attack the —

Mr Haase: I do not attack. Sorry.

Mr Byrne: Are you trying to target the relative impoverished areas with more public resource allocation?

Mr Haase: Yes. Take life expectancy. If you take quintiles, between the bottom 20% and the top, the life expectancy difference is seven years. If you go by deciles, it would be probably 10 or 15 years difference in life expectancy whether you live here or there. You do not address that by just one budget, be it the Peace budget, a special budget for rural areas, the rural development budget, LEADER or whatever. Those budgets will not address why people who live in a poor area have poorer health outcomes and have a lower life expectancy. We have to look at the main social gradients as they exist in health, education and so on, and start working on a conceptual basis on a clear profile of the effects of social gradients, and then, according to the relative gradient, measure the gradient and do studies. We are starting to do studies on different cancers and what the exact social gradient is in terms of cancer outcomes, heart disease, diabetes, obesity and so on, and we will then introduce that as a weighting mechanism for mainstream budgets. That is where we need to go.

Mr Elliott: Thanks for the presentation. It was very complex. I am trying to get clarification. You said that you cannot use single measures for all the aspects, but because we have the multiple deprivation

measures here, a number of those aspects feed into the one measure. Do you see that as a good measurement project?

Mr Haase: The problem is that the Noble index does a factor analysis. In other words, it abstracts from the individual indicators at the level of the seven domains, and then it simply counts them together. When you ask what the weighting is behind it, it is a very simple answer: so many civil servants were sitting round the table representing their Departments, and it is the weight of the Department that made up the reading. Just look at it. Services came in at 5% or was increased to 10%, but services is not a measure of rural deprivation. As I said before, distance to services is rurality but not necessarily rural deprivation.

Mr Elliott: OK, you have answered that. How do you put your proposals into a multiple deprivation measure?

Mr Haase: It is a multiple deprivation. It conceptualises deprivation immediately as multifaceted by social class, acute labour market deprivation and demographic decline as the rural equivalent. Therefore, the underlying dimensionality — this is the whole thing — is that the multiple deprivation measures count multiple domains but never test the underlying factors that influence the seven different domains. That analysis has never —

Mr Elliott: Are you counting the underlying factors but not those other broad issues like access to services?

Mr Haase: Because we have to —

Mr Elliott: You are just not giving as much weight to those measures, is that right?

Mr Haase: The way it is done is that, first of all, there are two different processes: an exploratory fact analysis and a confirmatory one. Exploratory works by taking the data and reducing the data through your underlying factors, which means that you take out the double counting. That is normally done with an exploratory fact analysis. Here we do the opposite. We conceptualise first the dimensionality that is shown to be comprehensive because we have a null vector, a vector towards and a vector away, which is a comprehensive plain. Therefore, you know that they have three profound dimensions. I did an analysis of about 20 different deprivation indices worldwide, and we always came out with the same dimensionality. Therefore, we then look simply at variables by which we can describe those. It does not matter exactly what variables you put in because, if I put in other variables that are similar, I would come out with exactly the same result. It does not matter that I do not have a health measure in it because it will be correlated again to those measures. Therefore, having more measures does not make it a better index. What is clear is that you have to have a dimensionality that itself has a theoretical base to be comprehensive, and that is the problem with the multiple deprivation measures. They use 52 indicators but, at the end of the day, they never even look at the underlying dimensionality because all it is is different observations and you do not know how much they overlap. There is a profound problem there. It looks like an awful lot, but there is actually nothing proven —

Mr Elliott: I see what you are saying, but we have only your research to give us the confidence that the three measures that you come out with at the end reflect all the other measures. You are saying that it does not matter what you put in there.

Mr Haase: I did a study for the OECD comparing 20 different —

Mr Elliott: Yes, but you are saying that it does not matter what you put in at the front end as you will get the same three coming out at the back end. Again, I do not know whether that is —

Mr Haase: The technique is called structured equation modelling. In that, you hypothesise the structural relationship and then test whether your data empirically supports that structure. You get a measurement, which is a fit index. The fit index is 0.95, which is extremely high, and that shows that it is an extremely well-fitted model. In other words, through our methodology, we can prove that it is a well-fitting model. That can never be done in an exploratory factor analysis or in a Noble index. They can never prove whether the index is a good one or bad one because there is no statistical measure. This methodology has built into it an actual measurement of the quality of the fit. Sorry, it is very technical and statistical, but it is absolute copper-fastened proof that the data —

Mr Elliott: I will have to take your word for it. I do not have the energy to go into it all.

Mr Haase: I should say that we presented the prototype of this at an international conference of 700 methodology scientists. It is the largest conference worldwide every four years on science methodology, just on the methodology aspects. There was a section on indicators and construction, and the Australian Bureau of Statistics and the Canadian census offices, which are the two most advanced census statistics offices in the world, congratulated us on having broken the conundrum with deprivation indices. They said, "You have done what we have wanted to do for 30 years". Take that as a little bit of confidence.

Mr Elliott: If they give you authorisation, there is not much point in me arguing.

Mr Haase: When Robert Beatty saw it, he said, "I wish I could run with your stuff, but, unfortunately, we seem to be locked into having to go with the UK all the time on these things". He acknowledged that this is a superior method.

Mr McAleer: Thanks, Chair, for letting me in again. I know that this is hypothetical, but in a scenario where your index was considered by government as a means of allocating resources and targeting need, what would the impact be for rural areas in the North?

Mr Haase: I will give you an example. Let us talk about cancer for a moment. I am talking about the Republic, but you will immediately see the appropriateness of what I am talking about. There is a debate about cancer care being channelled through eight cancer centres in the main cities: Dublin, Cork and so on. There is now a discussion about a single paediatric hospital in Dublin. If you want to have better outcomes in cancer care, you need to have specialisations. You cannot have every local hospital operating on colorectal cancer because they do not have the expertise. The two biggest hospitals in the South, Beaumont and St Vincent's, achieve 100 colorectal cancer cases per annum. Internationally, a speciality is 200 cases of the same cancer per annum. You need specialisation. How do you get specialisation when, at the same time, you do not account for accessibility? If we want to improve services and we are under the same constraints, be it here in the North, the South, England or elsewhere, the public purse is tied. We have to improve services. With people expecting the same services everywhere, we have to combine the ability to concentrate services whilst, simultaneously, making them accessible to everyone in the country. That is the task. The only way of doing that, and the only legitimacy you have, is by achieving it by making these cuts, be it in job opportunities or health. It is the same. You can exchange them for one another.

If, on the one hand, you have a more advanced specialisation in a society, which everyone wants to be able to access, you have to allow for the accessibility of that. That is why we have to start thinking about opportunity deprivation: the more we concentrate things, the more we will create opportunity deprivation. Why do we have global communities standing up against the closure of their A&Es? We have that because they do not trust that they will have access to the better A&E. We should combine that in a programme that says that we will make it accessible to everyone. We have to conceptualise and measure the degree of deprivation that we create through specialisation and counter that through accessibility. That is an overarching theme. It may not be accounted for in the same Department or in health, but the Government as a whole have to account for it. That is the problem we face.

The Chairperson (Mr Irwin): There are no more questions. Thank you very much, Mr Haase. You have come a long distance, so, thank you, again.

Mr Haase: Thank you very much.