

**'AMND in focus' Episode 1: What is AMND? Transcript and Timestamps**

Clip Name	Clip Timestamp	Speaker	Audio
E1 Clip 1	0:00 – 0:25	Grace Urquhart	<p>Hello and a very warm welcome to 'AMND in focus', a new podcast series made in collaboration with the University of Aberdeen and the Aberdeen Maternity and Neonatal Databank (or AMND for short).</p> <p>This podcast aims to act as an educational resource to engage the public in understanding what AMND is and why it's so important to allow your data to be stored in this databank.</p>
E1 Clip 2	0:00 – 0:17		<p>We ultimately want people to feel proud to be part of such a unique and successful resource that we are so lucky to have in Aberdeen.</p> <p>To introduce ourselves, we are Ellen, Grace and Shauneen. Three masters students currently studying Global Health and Management at the University of Aberdeen.</p>
E1 Clip 3	0:00 – 0:44	Ellen Anderson	<p>This first episode will explore the history of AMND and what makes it so special.</p> <p>We will be hearing from our first guest speaker of the series, Dr Sohinee Bhattacharya, a senior lecturer in Obstetric Epidemiology at the University of Aberdeen.</p> <p>Dr Bhattacharya's work involves innovative use of routinely collected health data, analysing and interpreting these data sets to inform and improve clinical practice.</p> <p>This episode includes clips taken from her interview with Dr Heather May Morgan, a multidisciplinary lecturer at the University of Aberdeen, who has kindly provided precious recordings of her interviews with staff and researchers from the University of Aberdeen.</p>
E1 Clip 4	0:00 – 0:04	Grace	So Ellen, what is AMND?
E1 Clip 5	0:02 – 0:14	Ellen	The Aberdeen Maternity and Neonatal Databank is a now computerised bank of data which stores information on all pregnancy and birth-related events that take place in Aberdeen.

	0:21 – 0:39		<p>It is an invaluable source of information which is used for monitoring maternity and new-born care as well as providing a wealth of data used for research purposes.</p> <p>To understand a bit more about the history of AMND, let's hear from Dr Bhattacharya who explains the story behind it's creation.</p>
Sohinee_Heather	0:58 – 1:26	Dr Sohinee Bhattacharya	The Aberdeen Maternity and Neonatal Databank (Amanda for short) is actually a database that has been recording all the pregnancy related events and the information from these pregnancies occurring in women who have been giving birth or getting pregnant in Aberdeen from 1950 onwards
	1:27 – 1:43	Dr Heather May Morgan	Wow, so that's a huge resource now, in terms of that's been running for over 70 years. So I suppose that leads to the next question about when it was established and by whom. Why did this pop up in 1950?
	1:45 – 3:17	Dr Bhattacharya	<p>So it started in 1950 as I said, well the seeds of it were laid even further back so 49/48 some pregnancies were already recorded almost as like a pilot database.</p> <p>And of course it was started by Professor Sir Dougald Baird, who gives his name to a lot of things in Aberdeen, particularly health related stuff in Aberdeen. And he was then the head of the department for obstetrics and gynaecology in Aberdeen, having moved from Glasgow in 1948, I think it was.</p> <p>He was a visionary basically in a word. And immediately saw the benefits of actually recording and acquiring and storing clinical data which could be used in the future for research purposes.</p> <p>Pregnancy and birth are a really good way of capturing normal populations because you know, pretty much most people will give birth, and everybody will have been born at one point or another. So it's a really go way to capture data around a population.</p>
E1 Clip 6	0:00 – 0:09	Grace	So, if I was a patient in the Aberdeen Maternity hospital, what kind of data would the bank collect from my medical records?

Sohinee_Heather	4:02 – 6:01	Dr Bhattacharya	<p>The information that's collected relates to any pregnancy, not necessarily a delivery or birth occurring, and that's really important and I'll tell you exactly why later.</p> <p>All the information related to all pregnancies occurring in the Aberdeen Maternity hospital, and these are arranged, if I can you know give you an example, in four sort of mandatory records or groups of records.</p> <p>So the first is the woman's kind of own characteristics, that are not changing over pregnancy. Things like the date of birth, the blood group, height, stuff like that.</p> <p>Then there's the pregnancy records, which is the pregnancy characteristics which are unique to the particular pregnancy. And these are things like the last menstrual period, the number of antenatal visits, what they found at the antenatal visits, etc.</p> <p>Then there's the delivery characteristics or the delivery record. Which is things like date of delivery, whether the baby was born by caesarean section or not, whether it was a normal delivery.</p> <p>And the fourth which is a neonatal record, if there is a baby. Otherwise it's called a gynae record, so if there is an early pregnancy loss and how that was managed, that's the record. If there's a neonatal record, if there's a baby born, then things like the birth weight, gestational age at birth, etc.</p> <p>So that's a very simplified version of what the complex database looks like.</p>
E1 Clip 7	0:00 – 0:32	Grace	<p>That was a really informative summary of the type of information that is stored within AMND.</p> <p>As we know with modern day medicine, and particularly within NHS Grampian, patient records are transitioning to a digital format for ease of access within different hospitals.</p> <p>However, this has not always been the case. Something that I found very interesting was the story</p>

			<p>behind the original paper records that were kept in files.</p> <p>Once again, we will hear from Dr Bhattacharya who can tell us more about the time before this digitisation.</p>
Sohinee_Heather	8:58 – 11:11	Dr Bhattacharya	<p>That's a really nice story. So basically, all the case notes that were actually recorded are still available and they're stored in the Dougald Baird centre in the Maternity Hospital.</p> <p>Some of them have been achieved, it was achieved in Woolmanhill but I'm not quite sure where they've gone now. But what Sir Dougald Baird, when he first started the database, he was recording, well actually distilling the information from these case notes and putting them into what we call the 'Cope Chat' cards.</p> <p>So in 1950 there were obviously no computers. So the data was stored in cope chat cards which are actually sort of A5 sized cards with holes punched all around the edge. And each hole actually represents (I'm trying to explain this verbally and it would be so much easier if I could actually show you the cope chat card) but it's basically the punch cards, with holes punched around the edge, with each hole actually representing a particular characteristic or a complication. Say for example pre-eclampsia or high-blood pressure in pregnancy.</p> <p>Ok. Now the hole that you know you have pre-eclampsia written against it, would not be a hole but a notch so you would tear off that bit for somebody who actually had pre-eclampsia. So again, I'm struggling a bit, but if you took a stack of cards and put in a knitting needle through the hole that represents/that goes against the pre-eclampsia, all the ones who had pre-eclampsia, because it was made that the hole was made into a notch, those cards would fall out.</p>
	11:12 – 11:13	Dr Morgan	Wow!
	11:13 – 12:31	Dr Bhattacharya	And that was how they would identify certain cases. And these cards were stacked in years, so you could very quickly tell the rate of pre-eclampsia was for 1951 for example, just by doing this through the cards. And we still have those cards saved and we have the knitting needle, or something like the knitting needle, that you can actually use to look at these things.

	12:36 – 13:37		<p>In the beginning because there weren't that many cards to go through, they used to be counted manually. But imagine if you are looking for all the normal deliveries in a year, that would be you know like counting everything. So there was a machine that came into being, that was called the Hollerith machine (I hope I've got the pronunciation right) and that used to do the counting of the cards for you and would come out with a number.</p> <p>The Hollerith machine apparently was first used to count the votes in the American election in 50-something (I can't remember).</p> <p>Going back to the cope chat cards, there's a really interesting story as to how Dougald Baird actually thought of using the cope chat cards. So apparently, they used to use these cope chat cards in police stations, to record any sort of criminals or robbers etc, and you would have robbery or the area that the person operated in etc, whether he was in jail or not as each of these holes, if you imagine. Then you would put in a knitting needle through it to see if there was a robbery in a certain area and you wanted to see who were the culpable suspects and those cards would fall out. And Dougald Baird thought "oh we could use this for women who are delivering babies", so that's how it started.</p>
E1 Clip 8	0:00 – 00:23	Ellen	<p>As we mentioned at the start of the podcast, this is a very unique database that we have in Aberdeen, unlike any other of its kind.</p> <p>Our hopes are that we can help people realise just how special this databank it, and how it really puts Aberdeen on the map.</p> <p>A lot of people don't know this, but AMND is the longest running continuously recording database in the world.</p>
Sohinee_Heather	23:09 – 26:07	Dr Sohinee Bhattacharya	<p>First of all, I mean I think it's the longest, as far as I know, it's the longest running continuously recording pregnancy related or obstetric database to date. Sort of 1980 onwards, a lot of different countries started collecting national data, but national data always is much less ridge data, so it's got all the numbers and things, but it won't give you a lot of detail in there. So it's basically the longest running database in the world as far as I know.</p>

			<p>It also captures total population of Aberdeen, as I said having the advantage of having only one maternity hospital makes a difference, so you capture all the births.</p> <p>It contains not just the deliveries which a lot of databases do collect now, but it also collects any early pregnancy loss like a miscarriage or an ectopic pregnancy or termination of pregnancy for example. And because it can be related to the fertility nit in Aberdeen, it is possible to look at any fertility related events occurring in the same women.</p> <p>And because you can have a unique number, in Scotland we are very fortunate we have what is called CHI number (or Community Health Index number), you can actually link all of the pregnancy related events belonging to the same woman, so that you can construct like a complete reproductive history belonging to that woman.</p> <p>And we probably underestimate how important this is, because a lot of what happens in a subsequent pregnancy is determined by, or can be determined by, what happened in previous pregnancies. So previous pregnancy history is really, really important.</p> <p>And in Scotland we are also very fortunate that, like I said from 1980 onward, we've got very good hospital records, it's possible to link these pregnancy related, and you touched upon that slightly before, to study other health consequences and you can actually follow up the children who were born and look at sort of things that happened during when the mother was carrying the baby in her womb, to relate to that what happens to that off springs health later in life .</p>
E1 Clip 9	0:00 – 0:17	Grace	<p>Wow, it's so impressive that this unique cohort of patient data spans generations and can be used to produce such ground breaking research in Aberdeen and beyond.</p> <p>To appreciate the scope of data and what it can do, Dr Bhattacharya elaborates further:</p>
Sohinee_Heather	26:09 – 27:12	Dr Bhattacharya	<p>The other big, unique advantage is the intergenerational data. That I'll elaborate a little bit.</p> <p>It's because Aberdeen is such a wonderful place, everyone who comes here doesn't go away. So</p>

			<p>we have great-grandmothers, grandmothers, mothers and daughters all giving birth in the Maternity Hospital. And it's possible to link these people in this database to produce an intergenerational cohort.</p> <p>And just to give you some idea about numbers, we have approximately 40,000 mother-daughter pairs, about almost 10,000 grandmother-mother-granddaughter trios, and about 6,000 great-grandmothers.</p>
	27:12 – 27:46	Dr Morgan	<p>Absolutely overwhelming really when you put it like that, the richness of that and the kind of pride of the city of Aberdeen and that invention of this database, the creation of it and the maintenance of it to allow this to all be documented and to be made useful for not just individuals and their families, but the wider research community as well. Just um, just so impressive.</p>
	27:47 – 28:52	Dr Bhattacharya	<p>It is indeed, I mean it's absolutely amazing. I mean it couldn't have happened in any other place, it was just providential that it happened in Aberdeen and Dougald Baird happened to come to Aberdeen and found this unique opportunity because, I don't know how it happened there has just been the one maternity hospital/maternity unit even the midwife unit, so the women who delivery in the midwife unit, also pass through the doors of the Aberdeen Maternity Hospital so we could capture all of them.</p> <p>We have a few sort of, out I wouldn't say outreach, but a few hospitals that do deliver normal deliveries and the few who deliver at home, but it's no more than about 3% of the population that we don't manage to capture through this database.</p>
E1 Clip 10	0:00 – 0:10	Ellen	<p>So this brings us to the end of our very first episode of 'AMND in focus', where we introduced the databank and the impressive work that they do.</p>
E1 Clip 11	0:00 – 0:13	Grace	<p>Thank you to Dr Sohinee Bhattacharya and Dr Heather May Morgan for providing us with the interview content.</p> <p>We hope you join us for our next episode where we will be learning about intergenerational data.</p>