Don Bowman: I’m Don Bowman. And I’m the lead presenter. But I was just practicing this morning trying to read my biographical sketch, have you ever done that, that’s really awkward. So, I’m not going to do it, you know what I mean, because you always put the accolades in there you know. And so, you’re saying things like, well, after my first Nobel Prize, then, you know. But basically I teach at Trinity University and I’m a senior fellow with the American Humane Association. I’m interested in decision making in the main but risk assessment too and disproportionality.

To my right is Andreas Jud, he is from McGill University, he received his PHD from the University of Bern in Switzerland, and is a postdoc at McGill. He’s conducting Secondary Analyses on the Canadian Incidence Studies and Child Abuse and Neglect Data of 2008. His interest includes structural modeling, child maltreatment, health and well-being. And he’ll be talking within the framework I’m going to set the stage for today with the decision making ecology.

It’s harder to read stuff than to talk, you know. Next to him is Barbara Fallon, she’s an Assistant Professor at the Faculty of Social Work at the University of Toronto, Director and Co-Investigator of the Canadian Incidence Study of Reported Child Abuse and Neglect 2008 and the Principal investigator of the Ontario Incidence Study of Reported Child Abuse and Neglect 2008. And has 20 years of experience in Child Welfare Research. Her research interest, include child welfare workers, organizational behavior and service delivery effectiveness.

And to her right is John Fluke, who has more than 30 years of experience in Social Service Delivery System Research in the area of Child Welfare and Children’s Mental Health Service, and is Vice President for the Child Protection Research Center American Humane Association. He’s internationally recognized for his research and assessing and analyzing decision making and human service delivery systems, frameworks to scale up evidence based practice and for his innovative and informative research in the areas of administrative data analysis, workload, costing and performance measurement in child welfare. So, anyway that’s us and we welcome you all.

And I have to sort of keep track of time for myself here. What I’m going to do is just do a little brief overview of Child Welfare or decision making in general to talk about Decision Making and child welfare. Set the stage for my friends here by talking of the
continuum of intervention, we’d call it other things but it’s basically the flow of cases into the system in child welfare and the decisions we make along that flow.

Then I’ll give you an overview of the decision making ecology and I’m going to briefly go through it. And what I’m going to try and stress in the middle of it is sort of the factors, the context of the decisions and the process of Decision Making. And I’ll give you an application and a quick one.

And then in the end what we’ll do is we’ll wrap it up with some take home messages altogether. So, we’ll leave those until we’ve all talked. If you guys want to ask questions or whatever along the way, feel free. And we’re going to leave, we’re going to try and leave half hour at the end to have a discussion of what we’re talking about here.

In the decisions, I come from a psychological background. And so for me, thinking about how decisions work always have been about thinking about how people, what they do in their heads. So, to me it’s obvious that decisions have psychological properties and are at the individual level and that’s how people in the decision sciences typically do it.

They’re also made in a context, I know this is going to shock you but people are not always rational decision makers I know anybody that’s from Child Welfare will probably dispute that. Individuals have different thresholds for decisions as well which is part of what the decision sciences work on. And the idea is if you can understand the sources of error and accuracy, you can improve upon them.

And I happened to be when I flew in, I was sitting next to an aerospace engineer and it’s remarkable, he studies people who jet pilots and stimulators. And he uses a lot of the same procedures to figuring out what they do that we use. I was really surprised by that how similar the field of Aerospace engineering is to how at least I think about Decision Making and I wouldn’t have thought that, great conversation though I never met an aerospace engineer before.

In Child Welfare, that isn’t quite how we think about things. We think of decisions often being made in groups and guided by the organization and that’s really quite at odds with the other models in the decision sciences. And I don't know if you know this or not but there is a belief that there are lot of good models that have been developed in Child Welfare for understanding Decision Making and that’s just not true.

There are also different decision points in the Child Welfare System and there is this assumption, we know what you’re important. And there is not – once I was in a conference for three days where we couldn’t agree on the decision points, no kidding. We argued for three days over what the important decision points were. So, there is not a lot of agreement on that.

And then, finally, the idea that we understand the errors case workers make in their decisions is simply not true either. We are kind of babies in this field relative to the rest of the decision sciences while the decision sciences have gone on and they’ve been I
think too Nobel prizes in the last 20 years in Decision Making and a raft of research over the last 50 years, we have really failed to take advantage of that in Child Welfare. And so, this is kind of our attempt to do that.

We developed this model in the mid-90s and worked on it for really 15 years and just republished it in the monograph with the American Humane Association. And we had a lot of help doing it. Our colleague Lynne Dalgleish contributed mightily to our understanding of the process but lot of other people along the way made successful contributions. We’ve used it to understand burnout and turnover, worker performance, substantiated maltreatment, placements into care, excess from care and disparities.

So, the model has, the individual is the decision maker as well as its context. And I’m going through it, oh, here is the continuum. I just put a few points along the continuum you see screening, removal and placement reunifications. And so, assessments are made key decision points and different decisions and different actions are required of each point.

Today we’re going to talk about, I’ll give you the framework, then we’ll talk about racial disparities in the removal decision, Barbara will do that. Factors affecting the removal decision, John will do that and Andreas will follow up – will end up talking about changes and thresholds as cases worsen, how am I doing on time? Okay.

So, here is on a model. As you can see the ovules of the influences, so you got case factors, organizational factors, external factors, Decision Making factors, each influencing a decision and then that influences outcomes and outcomes flow back into the system as well. So it’s a model I haven’t drawn all the interactions that can be, you’ll see some when John presents his model, I just made the arrows point directly as the Decision Making.

So, let me give you a few examples. So, for case factors, you would know them like type of maltreatment, pattern of maltreatments, safety, child and family characteristics and so forth. Those are the things in the case that the workers attend to. But organizational factors also play a part in decisions, the resources people have and case loads, they behave in very predictable ways. I think we call bureaucratic distractions, I won’t get into but it was a scale we developed by talking to workers about what they hate about their job. And you can imagine the list I’m certain.

Support, like supervisor support, unit cohesion, policy, all of those things affect decisions. Decision maker factors of course, there are things inside the head of the person, experience skills, values, my favorite is orientation, whether you lean toward, more toward protection or preservation. There is a guy named James Mansella, if you want to look him up on the internet writes great stuff about systems and how the shift from protection to preservation produces different kind of error rates, really good stuff.

External factors, law, critical events like child deaths, bad child deaths occur, we act differently you know. When in doubt, we don't come out, right? That’s what happens.
When fatalities occur, you get a huge spike in removals and why wouldn’t you? You know, I mean you just do. Funding, the thing we’ve been studying lately called community engagement I don't have time to go into. But this is a list of some of them.

Within Decision Making, the thing Lynne Dalgleish contributed is the separation of the assessment of the situation from the decision to do something about it, or in other words, it’s the ability to detect something is what you’re assessing. You’re looking at case factors there, but there is a second part to it, I’m not sure willingness to do something to take action. A way of looking is another sort of slide showing the same thing, basically just says, when you assess, you look at case factors, when what affects your threshold are the other ovules in the model.

So, here is a way to think about it. So, here is worker one with a low threshold, little evidence before taking action, working to high threshold needs a lot of evidence before taking action. So, they could agree on the assessment, right. But they could completely disagree on taking action, that’s the bases of the model. It originated with signal detection theory out of psychology actually with Tanner and Swets in the 50s. It actually was a way, they were trying to learn how people could spot enemy airplanes and how they would make – that’s how it originally developed.

And example of the threshold like, here is an example of the threshold. So, the QIC evaluation on non-resident fathers, this was taking place in Four-sites. They had a lot of difficulty identifying participants for the study. Moms could be located easily in the administrative database but the non-resident, dads were like, they were non-existent but everybody has a father, right?

So, why wasn’t the information there? One possibility is theoretically is that people have different thresholds for putting that info for taking actions necessary to put the information in the system. So we had to teach people, we had to change their threshold for doing that basically so they would enter the data in the system. They’re going to talk about lots of other examples, but I just wanted to get that one in there.

And I wanted to just end by talking just for a minute about outcomes here. When we think of outcomes what we typically think about is safety, permanency and well-being, right, that’s the common one. But there are lots of other outcomes or consequences as well, and specifically to the people making the decision, think about workers and supervisors for example, satisfaction, burnout, turnover, corrective actions that can be taken on you.

You know, if things go badly or you’re going to get hung up to dry, do you think that will change your threshold, you bet it does. Reorganization, redefinition of your functions, all those things are consequences that affect people. A big for not only the agency but the workers are like public anxiety, media scrutiny, legislative scrutiny, that almost always happens with a spade of child fatalities are really bad on.
So, that’s all going on at the outcome level, not only are they worried about safety and so forth and so on, there are things they worry about themselves and when, you know, they get all those media pressure on them as well, what you see is as I said, you see these big threshold shifts where their thresholds lower for the removal decision for example.

But anyway with that mind, I’m going to turn it over to Barbara, and then I’ll come back and see in a little bit where we wrap up and then I’ll talk to you some more about this. Barb, you want to bring mic down and then bring yours up, because I’m not good with the button things. My laptop has a little pad and this one has a button.

Barbara Fallon: Hopefully I can.

Don Bowman: Can you do it?

Barbara Fallon: I think I can Don.

Don Bowman: Okay.

Barbara Fallon: I just have to figure out how to.

Don Bowman: I’ll show you.

Barbara Fallon: Slideshow, sorry.

Don Bowman: Yes, there we go.

Barbara Fallon: Here we go.

Don Bowman: Okay.

Barbara Fallon: Okay. So, I’m going to present an application of the Decision Making Ecology using data from the Canadian Incidence Study have reported Child Abuse and Neglects. So the two cycles ‘98 in 2003 are the data that we used for really a series of analyses. And the foundation for these studies really was my rather inelegant clumsy analytical strategy that I used for my doctoral thesis were I wanted to look at the contribution of worker characteristics and organizational characteristics to the short-term service dispositions that were measured in Canadian Incidence Study.

And that scholarly and research objective really came about as I visited the Child Welfare Organization that provided data to the Canadian Incidence Study. And I was really struck over the course of six or nine months of data collection or sometimes a year, not longer than that, whereas how desperate the Child Welfare Organizations were both with respect to the population and communities that they served, they are understanding of the investigation process for a child maltreatment allegation. And the staffing complement available to them.
Some agencies had a very difficult time in recruiting workers with social work degrees or years of experience or training. And so fortunately for me I gathered about elegant colleagues like John Fluke and colleagues from the University of McGill and University of Calgary and Public Health Agency of Canada and the First Nation Child and Family Caring Society. And we began to build on that idea with more sophisticated analytic techniques and the application of a very strong theoretical model. Thanks to Lynne, and Don and John.

Just a little bit of background about the Canadian Incidence Study. For those of you who don't know it, it is the largest Child Welfare study conducted in Canada. It has been conducted in '98, 2003 and 2008. Its primary objective really is to produce a national estimate of child maltreatment in Canada in the year that the study takes place.

We use the multistage sampling design the Child Welfare sites are more or less randomly selected. The less part being that large population centers are sampled with certainty. In large provinces, we would further stratify the province geographically and then randomly select our Child Welfare sites. We go directly to the Child Welfare worker that does the investigation.

So, roughly the six week point in the investigation, where the first assessment is due, by the agency as purpose to complete our data collection form which is three pages. And it collects any variable that an investigating worker would know at the end of a child maltreatment investigation, about how well the family is doing, about any risk factors identified for caregivers in the family and also about the nature of the child maltreatment, what is the override – the reason for the investigation through his physical and emotional harm and how well the child is doing.

This looks familiar. We’re going to look at the decision point for placing a child in out of home care at the conclusion of the investigation. So, one of the limitations of the cross section reports, the Canadian Incidence Study uses is that we can only tell you at the end of the investigation, the worker placed the child in out of home care. We can’t tell you whether that child returned home the next day after we took our data collection from the agency or whether that child was media crowned more and eventually placed for adoption.

The overrepresentation of aboriginal children in Canada has been well documented for the past 60 years. In the 1960s there was a residential school system and 80% of the children placed in the residential school system were by Child Welfare workers. The overrepresentation of aboriginal children is certainly evident in Canadian Incidence Study data where roughly depending on the cycle about 5% to 6% of children in Canada, 15 years of age and under are aboriginal and are sample ranges from anywhere between 17% and 98% to 24% in 2008, of sample of aboriginal children.

This is similar to the significant disproportional representation of African American and Native American children in the Child Welfare System in the United States. And certainly there is some evidence in the literature that race emplacement may result from
non case-related components and the literature continues its debate about the rule of poverty and race and the interaction between the two.

We work, our research team works with OCAP principles which means that if we are asking a question concerning aboriginal children and families, we work with an aboriginal partner, and in this case it’s Dr. Cindy Blackstock. OCAP is Ownership Control Access and Possession, so no research question or analysis done without an aboriginal partner and it is always our hope that the research questions be driven by aboriginal partners.

The first analysis I’m going to talk to you about is the paper that’s been published in Child Abuse and Neglect, John was the lead author. And we looked at placement decisions in disparities on aboriginal groups, using the Decision Making Ecology. And we wanted to understand what the contribution of agency or organizational characteristics were to that decision.

We used a multi-level logistic regression equation, we felt that this was a very good technique given that the general Link function easily confronts those binary outcome variables the service dispositions measuring the Canadian Incidence Study are dichotomous or categorical.

We did replicate the analysis using a generalized linear mix method and we found very similar results looking at significance levels, really at the third decimal place there is little bit of variation but nonetheless very similar results. We looked at formal Child Welfare placements and the variables included in the model reflected in an ecological model of child maltreatment.

But the way we fitted the models was first to put variables that reflected in ecological maltreatment into level one model. We extracted those that was, statistically significant and refit the model, the same thing with the second level variables. We first fit the model with the agency characteristics available to us. We extracted statistically significant ones and finally we put the two together.

So, we’ll look at the case factors that were entered into the model. Child age, the type of the maltreatment, whether or not there was physical harm noted at the end of the investigation went to emotional maltreatment, child functioning variable was scaled zero, one, two, three or more issues noted for the child, same thing with the caregiver functioning, zero, one, two, three more issues noted for the caregiver, the source of income, the number of moves and the level of cooperation noted by the worker.

The variables that were at the case level that we theorize should be extraneous to decision was household density. So, whether or not the caregiver, the child was white or aboriginal.

And here is our full model, you can see that in the outcome variables placement in most of maltreatment has inverse relationship to the two, the decision took place in formal, a
child informal Child Welfare care, physical harm, motional harm noted for that child is very important to the investigation, the same thing with the number of caregiver functions concerns noted. Two or more news also was highly related to decisions took place the child in out of home care and he level of cooperation.

So, now, we’re going to look at the level two variables. And these are the ones that we had available to us in ’98, the worker position, whether the majority of workers at the agency, only did intake or were classified as something other than intake or occurs the location of the agency, metropolitan site or another location, whether or not they were staffing vacancies and the portion of aboriginal reports. So, agencies with 20% or more investigations involving aboriginal caregivers were different than agencies with less than 20% of investigations involving aboriginal caregivers, coded one and zero.

And you can see our final model, so, you can see the presence of the case factors or level one variable and the only level two variables that contributed to the explained variance was the proportion of aboriginal investigations by that agency. The odds were very high just over three times more likely to place the child in out of home care for agencies with 20% and more of their investigations, involving aboriginal caregivers. We have – we were a little concerned, we’ve done lots of modeling with sub-samples of our sample and that finding is very robust.

It certainly is interesting to note that the aboriginal stages of the child was not statistically significant related to the decision to place a child at out of home care. And the single agency level factor that increased is the likelihood of placement was the proportion of aboriginal children in care – sorry, proportion of aboriginal children on the case load. And it suggests that there are disparities occurring at the agency level. So, we think it’s a little bit complicated than just agency is serving a poor area, because there are agencies serving poor areas in the sample that don't have a higher proportion of aboriginal case load, so it’s a really an interaction between practice and service resources.

Moving quickly through our next analysis, we now had the 2003 data available to us. And we wanted to see whether we could replicate this very interesting finding using that data. The list of authors is alphabetical. We have to spend about 5% of our conference calls arguing about who’s going to be the first author, but not in the way that you would expect. So, I decided to just put people alphabetically and John can report back that that’s my vote. So, certainly builds on the work of John’s paper.

We assessed the comparability between ’98 and 2003 we had to remove exposure to domestic buying from the 2003 data because interestingly in Canada between ’98 and 2003, there was almost a three-fold increase of reports, about children who are exposed to domestic violence. So, we took the matter of the 2003 sample and we re-estimated the 1998 model and we proceeded.

Same analytical strategy really in this paper part A, 22% of the investigations opened for ongoing Child Welfare services resulted in placement and out of home care and about 26% of investigations were children with average on heritage. The first level predictors,
some were similar to the 2003 model, emotional maltreatment active in the same way and emotional physical harm for strong predictors of the decision to place the child in out of home care, interestingly aboriginal stages the child was statistically significantly related to the decision took place.

And at the same time we retained that second level finding that the proportion of aboriginal children, the number of aboriginal children in all the investigations was significantly related to the decision took place with any child in out of home care.

There are a couple of reasons why we think that this is the reason that we’ve had this finding one is that we have a bigger sample size, we’ve gone from 1,300 investigations to just over 2,000. We have more aboriginal children in our sample and we have more aboriginal agencies in the 2003 sample. So, we may just have the power to be able to detect some sort of systematic bias and I think it sort of lends itself not being able to rule out that there is racial bias in this Decision Making.

Just quickly, looking at part B of the paper, alphabetical list once again, in 2003 we had a different organizational questionnaire than in ’98. We had organizational second level or organizational characteristics available to us that we didn’t have in ’98. That’s why we wanted to see whether this had some to explain the finding of the proportion of aboriginal reports being laid to the decision to place the child in out of home care.

The new agency level variables we added were stress specialization, centralization so how is the intake process organized. Are they locally or centralized supervisor ratio, education, tests, as Don spoke about earlier and in quest of high profile cases.

This is our final draft model. I guess, that’s what – I don't know whether that’s what we’re calling it now, John, that’s what I’m calling it here. And you can see that the first level of variables remain the same. The second level of variables we have this very interesting finding where the social work, sorry, the education of investigating workers mediates the proportion of aboriginal reports. And the way the intake process is organized either locally or centralized also mediates the proportion of aboriginal reports. So, social workers in agencies where the intake process is localized not centralized are less likely to place a child in out of home care.

And that’s what I said. The first paper is published in Child Abuse and Neglect. And the other two papers we’re hoping to get out soon, but certainly you can e-mail John or I, anything to do with Canadian Incidence Studies available through the Canadian Child Welfare research portal. And now, Andreas?

Don Bowman: No, John.

Barbara Fallon: Oh John, sorry John.

John Fluke: So I’m going to talk about another model that we’ve been working on a similar theme. And I can get things going here. This is a model that we’ve been working
on again collaboratively with Chris Graham, at the University of Washington, myself, Don Bowman and Alan Dettlaff.

And it is a work in progress so we’re still working on the development of this particular paper. But the purpose is to explore the context of placement decisions and the interrelationships among case factors, case worker factors and organizational factors. So, in other words we’re looking at this decision from the standpoint of our Decision Making Ecology framework.

And again, this is the model that Don described earlier so I’m not going to go into that. But just to be clear that it is indeed the same framework that we’re trying to work from. This is our schematic diagram of hypothesized relationships with respect to the factors that we’re able to look at, yeah, in this particular study. So, we have case variables, worker variables, characteristics, attitudes and feelings, worker perceptions of organizational variables.

And we’re tying those into the percentage to be removed and placed into foster care so, that’s the sort of focus of the study is this particular explanatory framework that these three influences are all at work in terms of this particular decision.

Our study sample is about 1,100 investigative case workers in the State of Texas that were surveyed in August of 2002 through to December 2007. And these were matched to administrative records of cases and personal records within the state of Texas. The case records ranged from 2004 to 2008, so basically what we were doing this time surveyed data to the actual performance of those workers during that time period.

This is a brief description of the case worker scales that were available. Some of these are items that we had used in previous studies, along the lines that Don had mentioned earlier, including things like case worker skills and job experiences. We also have a set of items that are related to removal decisions and the kinds of things that influenced workers perspective regarding or attitudes regarding removals.

Also disposition decisions for the investigative workers, questions regarding comfort with respect to difficult situations as far as dealing with families and working with families, concerns about liability in the Decision Making process and their views regarding the nature of services that are available within the community. So, these were the things that we were asking workers about. We also used personal data to obtain information regarding their 10 year education, race, ethnicity, age, gender, other factors that were more demographically oriented.

And we also did a lot of measurement modeling with respect to the scales one of the key ones that we looked at was the issue of attitudes regarding the removals. We extracted two components, one that we referred to as an external reference which the idea is that the individual is more likely to be concerned about the perspective of the children and families when they make decisions. And an internal reference has more to do with their own personal beliefs and values about what would be an appropriate type of decision to
be making. And most of the scales that we found were reliable with the exception of the disposition decisions. So, we thought that we could use them in the analysis.

Again, here are some of the worker variables, the ones that are labeled with an L or ones that we created latencies for in our measurement models. And here are some of our organizational variables you can see that these are all latencies. And then, we also had case variables, the risk assessments, income data, whether or not children were of a specific race or ethnicity in terms of the case loads that the workers had been carrying. And of course the percent removed for each of the workers that were involved in the study.

So, this was the final model that we came up with. As you can see it’s very complex. And I think that one of our struggles in terms of preparing the paper is just sort of sorting out what all these different relationships mean. But I want to talk about it in a general way and then if there is specific kind of questions, we can certainly talk about those later.

One of the things that I wanted to point out though is that we sort of coded this up a little bit to try and make it a bit clear, this of course is our decision that we’re focused on the percent removed. The darker blue, are worker variables. The lighter, referred to are case variables. And then, we also have a set of organizational variables. So, you can kind of see that that’s the – within the context of framing the Decision Making Ecology.

Our fit industries are pretty good for this particular model. Although our ability to actually explain our decision point with respect to this model is rather limited when we’re getting about R-square, 0.12 with this particular model, so there are definitely limitations.

Just to give you an idea, this is looking at some first order as well as some mediated affects with respect to workers. So, again, here is our decision criteria, direct affects have to do with the risk assessments. The perceived support and organizational variable, of course risk assessment is a case level variable. And our workload and resources which is also considered an organizational variable in the model.

But you can see that these are mediated by worker level affects. So this is seniority, case skills external reference having to do with again that issue of does the work or perceive that outcomes with respect to the children and family are more critical. Capacity to deal with difficult situations worry that CPS sometimes and this is a non-latent form of this variable, worry that CPS sometimes makes things worse for the child and interpersonal skills.

And you can see, one of the interesting relationships is that concerns about workload and resource is not being enough, actually and the negative correlation with respect to the percent removed, not something that we expected. So, we think this is actually measuring something else. It may have to do with the worker’s organizational skills for example and the nature of the types of cases that are actually being assigned. So, it just begins to suggest some of the things that we need to look at, you know their modeling exercises.
But with respect to our own sort of general hypothesis, what we found was is that there were relationships between worker variables and case variables and relationships between worker variables and perceptions of organizational variables, their perceptions of those. And that these had direct influences on the placement decision. But in opposition to our primary hypothesis, we did not find a direct affect related to worker variables.

One of our thoughts about this is that this sort of mediated affect maybe where we need to be looking for thresholds in our concept of the Decision Making Ecology. The thresholds are in fact mediated in affects as opposed to direct affects. And we think that that’s probably consistent with a lot of the literature on Decision Making.

So, we found five factors to influence the percent of cases that result of in a removal. And again, as I mentioned they only explain a modest proportion of the variables. Variables characterizing case workers were not found to be directly influencing.

The factors that were most importance of risk being assessed, the families on a worker’s case load being relatively low their perception that their case loads were somewhat lower. And that the placement percentage was decreased by higher proportions of Hispanic families being on the case load, this is somewhat similar to the analysis that Barbara described although we’re actually talking about worker case loads as opposed to the organizational case loads.

And the organizational variables were higher levels of perceived organizational support tended to reduce the likelihood of placement and the perceived workload and resources being problematic as I mentioned also tended to reduce the proportion of cases that were placed, so, just a little bit of contact information before we turn it over to Andreas so.

Andreas Jud: Okay. That has been a lot of information. I hope you’re still into another presentation. Here it is, okay, yep. Okay, this will be the temporal aspects in the Decision Making Ecology and geographically even more exceptional that the Canadian one. There will be an application and Swiss Child Protection, and you’ll see why.

Just as a reminder, the model of the Decision Making Ecology right now, we’ve been talking about the input – the impact of the factors Decision Making and outcomes. But we didn’t yet look at feedback arrows which will be the topic on this presentation. Don has introduced to you like to the degree that the consequences of decisions can be known assessments and thresholds may shift through the four influences of the BME.

Like well, outcomes to decline are certainly most familiar. But also like he’s been talking with example of child fatalities where thresholds in organization can shift in the Decision Making, maybe the decision maker even leaves the organization and also the external factors. You remember media scrutiny, public anxiety etcetera.

Well, one way to look at developments overtime is to look at the extreme which is certain children keep staying in the child protection system repeated reports, repeated removals.
and placements, variety of ongoing services and new service referrals. And some child protection workers are repeatedly confronted with the same child.

So, kind of in a really simplified model of trajectories of assessment, we can assume that the assessment of risk in these worsening or cases it certainly won’t decline the risk assessment, it will at least stay the same or maybe even the risk assessment, the risk will even get more and higher. So, I just – to simplify it I – here the line, risk assessment at least stays the same, however what happens to the threshold to the – in the decision maker. This process is mainly on the models on expectancy – expectancy value models and especially on the work from Schwarzer and colleagues.

So, imagine like as a background a new case, regular child protection worker, no burnout. So, in such new case where the first – with the first experience of negative feedback, the expectancy to control the outcome should channel it behind the situation is appraised as a challenge. So, actions will be taken, decisions will be made with the first negative feedback. However with ongoing negative feedback in this case, repeatedly referrals, repeated removals and expectancy to control the outcome will decline. Behavior will become passive designative and the situations appraisal will change from liking effort to liking means.

Again, to simplified model of trajectories, I now put in the threshold and with like worsening cases, ongoing negative experience, the liking controllability, we assume that the threshold will decline. So, the risk assessment still is on a high level. But the threshold due to experience of lack in controllability is assumed to decline. So, it’s not – you see in the beginning, it’s higher that the assessments of lot of activity, lot of services. And it’s not so that no actions will be taken when time proceeds. But just as a general assumption that fewer actions will be taken, fewer decisions will be made when at the end of the accessible time and negative developments have been going on for a certain time.

Well, I’ve said it’s an application in Swiss Child Protection there will be no lengthy introduction to the Swiss Child Protection, just a few notes. There is no mandatory reporting that system relies completely on the differential response track. There is an institutional division between child protection authorities and child protection services.

All reports are addressed to the child protection authorities. And the authorities decide upon removal and enactments of child protection orders which I’ll be talking off in a second. The child protection services are responsible for the assessment and also for the provision of ongoing services.

The most important child protection order in Swiss Child Protection is the enactment appointment of a legal assistant to child, which is means that this legal assistant can provide the job and family with counseling and practical supports, referrals to specialized services if needed he or she is granted the particular power to represent the child and enforcing it’s right to maintenance or other rights and entitlements.
Most importantly, this legal assessment, this child protection order secures funding and that’s why we are talking about Swiss Child Protection, usually these legal assistance to the job are not just there for several months but for years. Usually they’re once enacted, the care and support for the family over several years. And that’s why it’s interesting to look at developments, case developments within this framework.

Last note, as there usually with support to family, the child for several years, there are usually bi-annually fixed periodical reviews. I hope you get a general idea of what the Swiss Child Protection System is, I’ll proceed now to the study itself. It’s an analysis of FAS from these cases and Swiss Child Protection, its 148 cases in four different sectors, that is defined as by urban rural and language, German or French. It’s a random stratified sample by Child Protection order which is essentially the enactment of the legal assistance which I’m talking off for and/or removing of the child emplacement.

The data have been collected documents, the documents totaling to around 40,000 pages, that’s also why – that’s the main reason why the sample sizes relative is smaller because there are no huge amount of information within the files.

Here, you can see few characteristics of the sample at baseline which is the enactment of the child protection order you can see here, the issue of this proportionality, with the migrant background. Also, the note on the types of treatment or endangerment situations, it’s not that’s the only time of more treatment in these cases but it’s a main. What you can see here under the title of intervention due to is the main reason why that child protection order had been enacted. So, you can see that’s in more than two thirds of the cases, it’s been due to domestic violence followed by neglect.

What is also important as you will see is the amount of professionals involved, we have roughly 3,000 professionals in these 148 cases, which is a median of 15 professional per case. And it’s a minimum of two and a maximum of 68 professionals in one case which is like recounted every worker, every child protection worker in child protection authorities, child protection services, mental health professionals in different placement facilities so you can imagine like, if the child has been placed like five times, five different locations. There is, a lot of professionals involved that in these files like three professionals in one facility, etcetera like. So, it’s every professional mentioned in these files.

So, like now, we’re coming to the core of this presentation. How did we model the activity, the service intensity? It’s – we took the proxy measure of number of contacts between professionals. So, we counted every file – e-mail, letter, note on a phone call, official document, etcetera, where there is a contact between two professionals.

We didn’t, we also tried to look at contact between the professionals and parents and/or child but unfortunately these were much less frequent and not thoroughly documented from the, inter professional contacts we have like these were thoroughly documented. We have the time of the contact, the reason of the contact, the contacts between parents and older child and the professional were usually only like a hand written and a short note
and that and sometimes not with the date. So, we tried to look at inter professional contacts. Just a short note, documents find twice or more have only been counted once. And the official documents regarding the mandatory bi-annual revision have been excluded.

So, on the second line you see our independent variable, with just case progress based on the full length of the file, the study team rated, the evolution of the case that’s improved or worsening. Cases with mixed or alternating positive and negative outcome were excluded. As the number of inter professional contacts, thanks, is certainly associated with a number of professionals involved. We included to, control variables which are associated with the number of professionals involved. One is the type of child protection order so legal assistant to the child or removal. And the out of control variable is the regional setting which was also associated with the number of professionals involved.

But however I take – I can explain to you right now, the control variables, if not altered the findings their number of professionals that did not have an influence on the direction of the association between case progress and the service intensity.

Now, let’s look at the outcome. Just, a few notes on that graph, you can see on the x axis the time, our outcome measure the number of contacts, the service intensity is the y axis. The red line – the straight red line marks the baseline, the enactment of the child protection order. And analysis has been restricted to two years before the enactment of the child protection order and six years after the enactment of the child protection order. It’s done with a multiple lineal regression, we also analyzed it but with personal regression and logistic regression, it’s all been the same. And it bears some similarity to survival analysis as cases where the child protection order had been ended, were censored.

So, as I’ve been explaining you or as we have hypothesized the service intensity level in the maladapted and the worsening cases, was high at the beginning, at the enactment of the child protection order. But then it continually declined with a short exception at around two and half years and it was also at all times significantly below the intensity – service intensity level in the improved cases.

You can see the level of service intensity level also declined somewhat in the improved cases. But contrary to the worsening, the maladapted cases, the decline in improved cases can be explained by a decline in risk or need, which it cannot and worsening cases. Temporary peak at around two and half years is easily explained by the fact that here we have those fixed periodical reviews at around two, and two and half years, although we excluded the official documents regarding this fixed periodical review, it’s still bore an impact we think of it as kind of like the pressure of justification.

So, it kind of like, having to do a periodical review triggers some more activity, some more inter professional contacts as kind of like a pressure for justification. But the surprising and also most alarming finding was that in these cases label with respectively like over the whole time as worsening or improved service intensity level in the
worsening or retrospectively labeled worsening cases was already significantly lower at the baseline, when the case was enacted. Like child protect, no, not the case, the child protection order was enacted.

So, how that, how come? Maybe the child protection worker associated past experience of lack in controllability with the new case and restrained expectancy might work in the sense of self referring prophecy minimizing expectations even further. Or you might also be confronted with an event of creaming allocation of resources to the more promising cases.

Well, that’s it so far from my side. And I think well, I have to show you the contact information and what I’ve been talking off has recently been, or just like I doubted like they sent me an e-mail, it’s now published in children and youth services, review. So, if you want to access that article, you have here the address.

And now, I’ll pass on to Don to wrap up before presentation.

Don Bowman: Thanks Andreas. Give me a second to get this back up. I’m not good with this whole red button.

Andreas Jud: Shall I help you?

Don Bowman: Only if you’re familiar with, I think I can do it like this one, I can do it. No wonder I never got one of these on my computer. I can’t control them. It’s what the guy on the airplane and I, were talking about, at one point in my life, I got to fly flight stimulators and that’s what this guy does. And when you land them, when you’re landing a flight stimulator jet, you control it with your thumb, if you move the stick it’s too much movement it’ll go like that. And I’m finding this to be a similar experience. All right, give me a minute to get where I need to get. I would have gone right to it but a little button was too much for me. Oh, here we go.

Okay, it’s so, what do we make of all this? I’m going to sort of do some take home messages from all of us I know that’s a lot of complex stuff to present to you. But in my experience with Decision Making, there has been a bunch of years. If anything I’ve learned, it’s complex. I mean, it is very complex that the kinds of things that go on in our heads when we’re making decisions and the forces, the factors that influence those judgments are complex.

And if we really want to learn anything about how worker make judgments, we’re going to have to take that complexity into account. And that’s pretty much what we’re trying to do with the Decision Making Ecology is to try and bring to bear some techno – modern, sort of the best of our techniques to do that. So, that really what we’re saying is this Decision Making context really affects decision making and has a lot of factors associated with it.
The second take home from mine anyway is that we need to make a distinction between assessing case factors and the other influences in the ecology that change action, that’s pretty much, what Andreas is saying is that thresholds change as cases get worse, you know. And then they would and you would expect them, you would expect them to do so. So, threshold, in fact thresholds explain a whole lot of the variability, it’s been our experience that they do. And it’s complicated.

And thresholds are different across the intervention continuum. There is a different threshold if you want to think about it for let’s say a removal as opposed to a reunification. So, anyway the idea is if we can understand the threshold, we can understand the kinds of errors people make, we can fix them. And example I’ll give you is with this proportionality research, what we find is this is Alan’s work and some other work – of other colleagues mind is that workers confused race risks and poverty. So, that even the lower levels of risk, African American kids get removed. And that they make a different judgment if you’re looking at an African American did support compared to a white did support, okay. Interesting thing, you could teach some of this, it’s actually regarded as the fundamental attribution error out of psychology but you could teach that in training.

Here is an interesting thing too. If you have a higher proportion of African Americans on your case load, you don't make that error. So exposure makes a difference. Those are things if you sort of know where the error is, it’s complicated as this all is, you can try and fix it.

If you don't know where the error is, we just keep going on and on trying to change the system and everybody running around blaming each others. There has been Monroe talks about, what do we do? We first blame somebody then we change policy and then we change our risk assessment to safety models. And where has that gotten us in 20 years nowhere, that’s Monroe’s point. It’s gotten us absolutely nowhere. So, her point and our point is let’s look for the sources of the error, even as complicated as this is to do, let’s find out where they are so we can fix something. I’ve got these numbers so I know who did it.

So, in the second presentation, what we found is overrepresentation is partly explained by organizational characteristics. Disparities can be remedied by agency resource that’s a really important thing to know. And maybe it’s a no-brainer to know resources bring about less better things but it can remedy disparities too. And tentative evidence to the importance of social work education, that seems like a good thing to know. And the organization of work mediates disparities as well depending upon whether they are centralized or not.

John’s message was really that worker characteristics may act as mediators rather than having direct affects. It’s been really hard to find worker affects over the years and a lot of people have been looking for them. And if this may provide us a solution to it that they’re indirect, that they don't directly affect decisions what worker affects other things and those other things then affect the decisions.
And it’s our hope that this kind of research that it would sort of from the basis for future theoretical development by providing some empirical results in a modifiable framework that may promote hypothesis generation, possibly even inspirations for more controlled experimentation. And what we really mean by that is to sometimes to get after the stuff we may need to turn to Vignette like studies where we can vary things. And even if you don't do Vignettes, most agencies have as part of their sachet system, a thing where they’re trying, when they try new things out, you can do research with that. In other words you can create an environment in there where you vary things you know, and have people come and play and see what goes on.

This astrophysicist guy, he gets to study what the pilots are doing so he’s looking at the mechanics of how they’re landing and all that stuff, wow, they’re processing, they’re telling what’s going on in their head. And so, he’s getting the data as you go. We never get to data as you go, you get it later. But if we think sort of differently about it, we might be able to get some experimentation going where we can get information from people as they’re making judgments, so we can understand what that process is.

And it’s just really been in the last, I guess, 20 or 30 years for the decision sciences and just recently in Child Welfare that we begun to make use of the tools that have been around throughout, really the 20th century which has been really a revolution in statistics and methods in this era for us.

And finally, even if an assessment doesn’t change overtime, what Andreas is saying is changes in personal thresholds can have an affect on service level intensity, you get less stuff you give up. Lowered service level intensity has been found at the beginning of negatively developing cases, and this might be an example of the transfer of negative experience on the threshold for need cases.

So, all of this is, all of this is to say this is complex stuff but it is very, very exciting stuff for Child Welfare. And there have been people in the other decisions sciences that have been doing this for a while with some success, medicine, engineering, weather, I know we think weather can’t predict anything, but they’re really, really good at it, believe it or not. We just had an example of it over the weekend right, we did. I mean, they use really complex models like we’re trying to use here and they really get at something.

So, anyway, I want to open up the floor to questions you might have. I’m going to sit back down so we can do it that way. So, that’s been a lot to digest for you all. Yes, I think that’s what we’re supposed to do. Whenever I’m in an audience I never wanted to do it, I never get up because you know.

Speaker: Okay, thank you. Some of you may have said this and some of you may not. Well, you might have addressed it in your research and there is only so much you can present in a short amount of time. I’m from North Carolina and I work for our state court system. And one of the things that we have been doing has been providing information
to our judges about child safety and Decision Making. And in community in which we presented this training we had conversations with the local Child Welfare agency.

And this may get to some of the information that Andreas presented in which there was a case study that was typical of the case load in which they had been in and out of a life of a family for more than 10 years. And it was sort of like a boomerang that finally kept coming back and back and back. And so, we had an expert in child protection to review the case. And that expert shared the information with the agency that they really didn’t know the family that was part of the problem that so much of the information they gathered and collected and the things that they did was very superficial.

So, is that something that you all plan to do perhaps in the future to talk about, to look at how deep the agency should get to be involved with the families to learn more about the families as to the appropriateness of the services been provided such that the expectations don't go down overtime?

Don Bowman: Do you want to do it John?

John Fluke: I mean, I think one of the things that I would say is that the skill at assessment is a really critical skill. The model that we’ve been talking about I think acknowledges that, that you know, the idea that we understand families, that we understand their circumstances, that we have some sense of what might happen and certain things don't change. All of those things are a crucial part of being able to make decisions. And the better you are at being able to do assessments then, you know, hopefully the better you are able to make better decisions.

So, the model doesn’t really preclude that. I think what we’re saying is, is that from a statistical point of view, we may have come to our limits as far as what we’re able to actually predict with respect to assessments. And so, from that perspective, even though we maybe able to improve our ability to assess and to take more time to assess, we also need to take these other things into account as well when we’re engaged in the process of making these types of decisions.

But there is a lot to this issue I think about assessment that you know, we can look at different way. You know, particularly I think when you’re involved in a process of looking at a family over a long period of time, their issues that have to do with the fact that they may have been handled by multiple workers, you know, all of whom are bringing sort of all this Decision Making stuff into their decision making frameworks. And that the information isn’t necessarily well transferred from an assessment perspective from one worker to another.

So, I think that, you know, at least from that perspective that I think is that we probably ought to be paying attention to. And I think the other thing is that the idea feedback, you know. Do the people who are actually making the initial decisions at some stage, whether it be an initial placement or reunification or reentry into care for example, are they obtaining the same feedback with respect to the agency’s prior Decision Making or
are they looking at those situations as if they’re brand new. And you know, those are question I think that would be really important to be able to answer, so I think it’s a really good point.

Barbara Fallon: I guess, I want to just add assessment, absolutely. You need to understand it and do a better job. I guess, the other piece is the intervention point. So, what’s driving it over representation of aboriginal kids in Canada is the category of Neglect. And really neglect driven by things like unsafe housing conditions, unstable housing, substance abuse issues, poverty. And so, if you’re – if a family is coming back and back and the model is case work, and really what that family needs is well, what society needs is sort of a structural intervention. And what that family needs is those kinds of reports that aren’t in the toolbox of the case worker. I think it warrants a little bit, a consideration as well in terms of why that family is occurring to child protection services.

Speaker: Well, maybe to build on that or to ask another question, I’m interested in this, particularly around removal decisions. And I was wondering removal and placement are really two different kinds of, you know, where are the – the kids are getting placed after they get removed. But do you find in your practice that those two are actually a little bit more linked about the fact that if there is a shortage of foster families, does that actually impact whether or not people actually get removed to maybe a negative way if they’re reluctant. Because I always look at it as a linear kind of process but I think sometimes the workers know if I take this kid out of their family where are they going to go and that does actually make a difference?

Don Bowman: Yeah, in general, I think that’s been my observation too. One of the findings we have that is related to resources and removals that they co-vary. So, that when – just generally, if you ask a worker about how much – what kind of resource – not what kind but how much resources do you have available to you, the more specific question is you know of course is there a family where places we’ve asked generally that. And we find, when they have few resources, it does affect whether they’re going to remove the child or not. More resources, less removals is what we found. And I don’t know what John, it’s in the work you are doing on placements if you.

John Fluke: I think that ties them directly to me.

Don Bowman: Oh the resource issue of Barb’s yeah.

Barbara Fallon: Yeah. Well, that’s one of the reasons I hypothesize about that that proportional of aboriginal reports at the second level explaining it would be dealing with the variance and the decision to place a child in an out of home care. That it’s probably, that those agencies don’t have the – an alternative. There is, the service resources available to those communities. And Andreas is doing a lot of work with the referral variable with the Canadian Incidence Study.
You know, when conversations with agencies that are not located along our border, our shared border but are you know, more towards the north of Canadian provinces, what agency directors and service directors are telling us, as a research team is that, they have to place one on the table pretty quickly because they don't have supports available to get to that child to that family.

And one of the announces that we did with an agency, we tried to partner with agencies as much as possible to use the data set, was that they were getting some, you know, push back from the ministry which provided funding why do you set a high placement rate looked at the data. And the northern and southern agencies had the exact same placement rate but considering placement at the point where we made an investigation was twice the rate. So, it was on the table at twice the agency that was not located in a metropolitan center, so.

John Fluke: And another sort of companion set of work that we’re doing is some work on computer stimulation where we’re looking at residential care Decision Making. And one of the chief drivers that, seems to be associated with that particular decision is supply, supply of residential beds. So, the idea there is that if the supply is at a certain level that there tends to be a relatively constant inflow of children into the residential care system. And that level of care, the assessed level of care may vary within a range depending upon the bed availability.

So, you may have periods when bed availability is relatively low, relatively high levels of intensity required for placement periods when bed availability is relatively high somewhat lower thresholds in terms of assessed need in order to maintain essentially the capacity of the system. So, it’s not necessarily that the – the needs are reflected by the system but the supply functions are really more tied to what’s going on with respect to what we see in that.

And it’s difficult to change that because the agencies that have committed resources to having beds that, are available, have to do that in order to maintain their ability to function successfully. So, it’s not a simple thing, but it isn’t necessarily directly related to assess needs.

Don Bowman: Anything else?

Speaker: Question for Andreas. On your service intensity slide, it looks like although the maladapted cases were obviously lower. They followed a similar pattern. And you had said you adjusted for periodic reviews that were mandated. I was wondering if you looked at other organizational factors that might drive that similar pattern between them the higher and the lower intensity.

Andreas Jud: Well, yeah, one must be looking at the different settings which were – because the different settings like when the language and different institutional organization they were associated with service intensity but, no they didn’t change the pattern – the overall pattern. I think like the overall pattern was pretty strong like we like
we, I just presented you some of the variables which do not go too deep into the Swiss Child Protection System. But we also tested like I remember charitable functioning issues, child functioning issues, type of maltreatment, like the service – that their level of service intensity can change but the pattern, the trajectories, they just stay more or less the same.

Speaker: I’ve got another question and it has to do with the repeat risk assessments in the intensity. Was there something that any one of you started as it concerned the Decision Making to you know, reunify like the cases that you studied over a number of years, like you Andreas and maybe some about exploiting the spikes. My question is, do you study how the depth or the quality of the risk assessment that was done over time in these cases?

Andreas Jud: Well.

Speaker: Like if the case was open for two or three years, were there periodic risk assessments and was the risk assessments of good high quality are not superficial?

Andreas Jud: I have to admit that open not of really good quality like you have to – the problem is like these legal assessments often have like per 1% of their work time, one case which is – which you can’t almost manage, it’s really hard. So, they like – the more – the easier case, since they have the improved cases, they’re just like, okay, I keep it in my case note, I don't end it because it’s easy, I don't have to do much. And so, I can’t focus on the worsening cases and that’s why we have the – also the improved ones do not – often do not and because they are keeping them in their case load.

And they’re just like, oh, now it’s again two years, I have to do that fixed periodical review and that’s why you can see all that – that triggers the activity, oh, I’ll call a colleague as in the mental health what’s happening to the child and it’s more – it’s not, at the beginning that’s why you can see like when the child protection order is connected, you have that really high service intensity level because there you have an in-depth assessment.

And then usually, well, it depends, it also depends on the – I don't want to blame Swiss Child Protection workers too much because it’s also they got to handle their case loads and really like here too like, it’s scarce resources with really urging issues like. And so, but yeah, you were right. It’s not once, you have an in-depth assessment. And then usually like it’s more what I hear from colleagues, how it’s developing, okay, I don't have it, it’s all – it goes along more or less well or not. I hope again, I lose track too much.

Don Bowman: I wanted to make a comment about risk assessment anyway. I think that the depth of your risk assessment is a function of what kind of instrument you have. And there are some in use in the U.S. that are pretty thin, others that are richer. The one I know of that’s done with mental health, as Steven Hart uses in Canada, has that kind of richness you’re talking about. It has a forecasting scale like structured Decision Making
has. So, it’s got that kind of scale that forecasts whether the person is going to be violent. But it also has a set of clinical scales.

And so, you really, they train people clinically in assessing the individual. And it seems, and what they find is that you predict more with both that you do with one or the other. In other words, you almost have to get that kind of depth you’re talking about, it’s good to have something that we’ll forecast for you, because that’s good information to have. But it’s also good to have something that tells you about the human beings, you’re talking about.

And so, I guess my comment is, it’s – I think that it’s largely a function of what kind of – what kind of tools we’re willing to build and how we’re going to help our decision makers make those good assessments. And I think that’s a complex task and I really admire Hart’s work because it does both. And I think it’s sort of like having a good story, what good is it to have a bunch of items to check without a story. People need a story and it’s important. It gives the context around which you can make your judgment.

And that’s what we are doing we’re just presuming we know the answer. And what we’re doing with our risk assessment instrument is predicting, we got I guess, correlations are run from what 13 to 15, that’s like so silly and in the variance explained that it’s ridiculous. I mean, you know, you’re talking about 1%, we’re missing 98% of what we need to know about, you know. And we keep doing this or we can sort of say, let’s really get on some kind of adventure toward better assessment, better understanding and that kind of thing.

And it’s sort of been my bandwagon for years as to try and help workers to do a better job rather than assume they’re stupid and we got to give them an instrument that’s silly, that just forecasts something for them so they don't have to think. That’s – when you’re predicting 13%, I’m sorry, you got a correlation of 0.13 with an outcome, that’s not a very bright move in my opinion.

Speaker: I’ll say this and I’ll be quiet. The reason why I ask that question is in some work that I do talking with the workers after the child is removed or whatever, focusing on the service agreement and working the caseplan, they don’t go back and do the assessment of the risk. They don’t do those assessments. And that’s, I just wanted to know if maybe, you know, best practice is that you do go back and do the risk assessments.

Don Bowman: You would think you would and…

Speaker: At least more than once.

Don Bowman: Well, in a way if you want to think about it this way, if you think about an assessment tool like a risk assessment tool as being diagnostic, how are you going to fix it if you don't know what’s broken.

Speaker: Exactly.
Don Bowman: You know, and so, not only do you have to know the first time what to fix, things change. So, you go back and look again and see what’s broken. And that’s what the instrument ought to do for you, the ought to be tied together so that when you assess, you would say, aha, I know what’s wrong then I can figure out what service to deliver as opposed to check more boxes and then go figure out what service to deliver when you don't know what’s wrong to begin with unless we pick our big three, that we always say that, right, substance abuse.

John Fluke: Before Don concludes, it’s just a quick segue to the concept of assessment Don mentioned our involvement with the issues related to fatherhood. And the importance of that as part of the equation that’s often not assessed. So, there are bunch of resources on the back table if anybody is interested in that. And we can respond to questions on that particular project as well, just a quick plug before Don concludes.

Don Bowman: Yeah. Well, I think if you had a card you’d be holding it up, anyone say stop.