Alaska Opioid Policy Task Force
a partnership of the Advisory Board on Alcoholism and Drug Abuse, Alaska Mental Health Trust Authority, and Alaska Department of Health and Social Services

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Alaska Opioid Policy Task Force Meeting Notes

June 24, 2016

Dr. Jay Butler convened the meeting at 9:04 a.m. He welcomes the group and introduced the topic, Pathways to Addiction.

Kate Burkhart called the roll.

Gunnar Ebbesson offered opening comments, appreciative of the community members attending the meeting today.

Ebesson introduced the first speaker, Dr. Josh Sonkiss, MD.

Dr. Josh Sonkiss, MD – The Science of Opioid Addiction

Dr. Sonkiss appreciated the task force's soliciting expertise from Alaskan experts, and not just outside interests. Dr. Sonkiss is a psychiatrist, board certified in general and forensic psychiatry, as well as adolescent psychiatry. He is medical director for Fairbanks Community Mental Health Services. He is a licensed "office-based opioid treatment" (OBOT) provider, though not actively providing that service. He is also editor of a continuing medical education journal on addiction treatment. Dr. Sonkiss stated that about 70% of his psychiatric patients have at least one substance use disorder. He has no financial interest in the topic, and receives no funds from pharmaceutical companies.

Dr. Sonkiss defined basic terms used in his presentation: science, neuroscience, social science, outcome research, economic research. (See page 4-5 of the presentation.) Opiates come from poppies; opioids are synthetic – however the terms are used interchangeably. Receptor science: Opioids come in "two flavors." Humans produce endogenous opioids as neurotransmitters. Heroin, morphine, codeine, etc. are exogenous opioids.

Exogenous opioids bind to the receptors in the brain just like the endogenous opioids. They were designed to do that, to help with pain. They bind to receptors in the spinal cord and reduce pain. They decrease the neurotransmitter GABA and depress neurologic function, while increasing dopamine (which is a neurotransmitter that is involved in feelings of pleasure). Dopamine is implicated in salience – what is important to you right now. It's what you're thinking about – and can't stop thinking about it.

The effects of opioids are a "complex cascade" in the neurological system. The reward circuit (page 7) involves 4 parts of the brain: the locus ceruleus (LC), ventral tegmental area (VTA), nucleus accumbens (NAc), and Pre-Frontal Cortex (PFC). The LC is full of opioid receptors. Pleasure comes from the NAc, which is right next to your thnking center (PFC). When you pour opiates in, the VTA sends a wave of dopamine to the NAc (which feels good). THIS is why people use.

The initial pleasure is what gets people hooked. Why do they keep using? It's complicated, but . . . "when you do something fun, you're likely to do it again." When you use opioids, your brain creates memories of the intense pleasure. The brain unconsciously learns that opioids equal pleasure – like Pavlov's conditioning reflex (dogs salivating at the bell).

TOLERANCE is a key concept. The first time you use, it's the best thing ever in life. You're going to instantly want to do it again, and the act of using becomes a ritual. The problem is that the body is already adjusting to having too much opioid around, and so the next time you use it's not as awesome. So you have to use more, more frequently to get the same result as the first time. "This is a losing game." This is true for all sorts of medications, not just opioids.

"Tolerance is like driving with the brakes on." Dr. Sonkiss explained the cellular reaction to opioids, downregulation (page 12). Cell 1 is a healthy cell. There's more morphine (yellow dots) than receptors (red darts). The cell gets overloaded, so it closes off the receptors. (Cell 2-3) This contributes to the need to use more, more frequently. Some of the consequences of downregulation can be reversed, but not all.

What happens when you take off the brake (heroin)? WITHDRAWAL (page 14)

DEPENDENCE: Tolerance + Withdrawal = Dependence

Tolerance is easy to develop, especially when you've been on pain medication a while. So when you are healed, you will have some withdrawal. That's dependence, but it doesn't necessarily equate to addiction. This happens with other medications, like Clonodine (blood pressure medication) and antidepressants. However, there is no craving associated with those medications.

ADDICTION is a complicated, multifaceted disease. There are several models of addiction. Most people are familiar with the "moral model:" substance use is a sign of weak will, bad character. Dr. Sonkiss said that, while this model isn't helpful for doctors or policymakers, it has a place is some situations (like not wanting your daughter to date a drug user).

The criminal model is that drug use is a crime. That model has created the problems in the criminal justice system we are now addressing. However, that model has a place in drug enforcement and the courts. It's not helpful to doctors.

The recovery model is based on the idea of a personal journey through addiction. This helps doctors and policymakers. The social model is also helpful – learning theory. The medical model is that addiction is a chronic disease. "All of these models have some validity," though there is a greater scientific basis as you move down the list. The last three are most helpful for policymakers.

The medical model has three approaches: biomedical, clinical, and public health. The biomedical approach relies on medication. The medications address the changed set point in the brain (structural changes and chemical changes resulting from downregulation). The cells affected in downregulation will recover some, but never to the original structure. This is similar to how trauma affects the brain. Which means that there may always be craving – just not as intense. The origin of the craving is the permanent change to brain.

Biomedical models also address cognitive deficits. Opioids degrade PFC function (worse and more permanent than many other drugs), which inhibits the person's ability to choose not to use. The PFC has trouble reining in the other parts of the brain that want to use. "It's because of brain damage, to put it bluntly."

The clinical model relies on relationships (between clinician and patient, peers, etc.). The public health model is what the task force is considering – how to deal with the issue at the population level.

"Fundamentally, addiction is a learning disability" according to Dr. Nora Volkow, MD at the National Institute on Drug Abuse. Not a learning disability like a child who can't read, but like Pavlov's dog conditioned to salivate at a bell.

Addicts can't "just quit" because their PFC – the source of control -- is weakened while the parts of the brain related to memory, drive, and saliency have all grown. The job of addiction treatment is to shrink the drive and saliency, change the memories of how wonderful it was to use, and to strengthen the brain's control.

Types of treatment include:

- Twelve step programs, which are very important.
- Detoxification is useful to bridge from active use to psychosocial and/or medication-assisted treatment. Withdrawal is so severe that people often don't complete detox. People are more likely to relapse after detox without treatment. They are also more likely to die of an overdose after detox because they lost tolerance to the drug with detox.
- Psychosocial treatment is very effective for many types of addiction. "It is an essential component to any opioid addiction treatment." For many addictions, psychosocial treatment with wraparound services work really well. Not so, for opioid addicts, because of the brain changes.
- Medication assisted treatment can involve antagonists, partial agonists, and agonsists.
- Antagonists block the high from opioids. Studies show the long-acting injectable form works, though not as well as replacement therapy. People don't stay in treatment as long. Antagonist medications can't be diverted or abused. You can't

take this medication if you legitimately need opioids for pain. Naloxone is an antagonist, but it is not treatment. It works quickly, for a little while, to save a life.

- Methadone is a full agonist. It has long half-life, no immediate effect (its effectiveness comes on slow, lasts a while, and diminishes slowly). Only a specially licensed provider can prescribe/dispense methadone for substance use disorder treatment, but physicians can prescribe it for pain. You can get high on methadone, but it takes a large dose.
- Buprenorphine is a partial agonist. It opens the opioid receptor door part way, then blocks it. It's hard to get high on buprenorphine, and overdose is very unlikely.

Evidence and research shows that medication assisted treatment (MAT) is effective – better retention in treatment, fewer overdose deaths, and fewer hospitalizations. However, there is the potential for abuse and diversion of the medications.

Research on methadone tapering showed that most of the people relapsed when they tapered off the methadone. Policymakers often feel uncomfortable with that idea (perpetual medication), however there isn't the same stigma or discomfort with the idea people taking blood pressure medication for the rest of their lives.

Task force member Dr. Coleman commented that relapse was associated with the length of time on the agonist treatment. If the person is able to establish strong support networks and positive structures in their lives over 3-4 years while in medication assisted treatment, they are more likely to successfully taper off. People who are stable often want to taper off. Dr. Sonkiss agreed, emphasizing the need for the person to have restructured their life and brain around a sober life – and for the support to maintain that restructured life and restructured brain during and after coming off the medication.

There is research supporting the economic benefits of MAT treatment for opioid addiction (page 38-39).

Dr. Sonkiss summarized the take home concepts (page 40) from the presentation and concluded "you need a spectrum of services" to meet the needs of a diverse population and diverse needs.

Michele Federico, MSW, LCSW Client Services Director, Gastineau Human Services (GHS)

Michele Federico spoke about her initial entry into the substance use disorder treatment field – after working with clients experiencing eating disorders and wondering why it was so hard to help them. She spent many years providing mental health services before arriving at GHS to serve criminal offenders with substance use disorders.

Federico's presentation was based on lessons learned from 900 clients served at GHS over the past 4 years. Of these clients, less than 1% were self-referred. "People don't come to treatment of their own volition, usually."

In preparing for the presentation, Federico polled the clients at GHS with a heroin addiction: "What got you into this addiction?" Clients said the euphoria from opiate use is beyond what you can conceive of as pleasure. They then seek that euphoria over and over. They are uncomfortable in their own skin – the drugs help ease that feeling. They also want to connect. They use heroin with others: paramours, friends, family members. It's a way to connect. Most said that they were hooked after the first or second time – and they experienced craving right away. "Heroin has deep roots. It leaves you very sick."

Heroin users are rarely only heroin users – they usually have polysubstance use disorders (stimulants, marijuana, alcohol).

Federico echoed Dr. Sonkiss's comments about the difficulty with relapse when titrating from methadone.

Why do people use? Why do they relapse? To get high and to avoid pain. The cravings drive the behavior.

Federico referred to Laslow's hierarchy of need. Understanding the environmental context of human need. How do we know what's healthy, what's not, in order to fix it? In the development of addiction, there are many unmet needs. Especially the more basic, essential needs. Many of the competencies to meet those needs are compromised.

Chronic and acute trauma creates deficits in the pyramid. People who are broken discover that drugs, opioids ease the pain. Many people were introduced to the effects of opioids through a legitimate medication for pain – though most were already using other drugs (alcohol, marijuana, etc.). Opioids were "the game changer," though. It's a different experience, a different high. The rituals of use are highly associated with the euphoria.

Heroin use rose when prescription opioids became harder to get. There is higher use of methamphetamines with heroin. Federico commented that many of her clients who used this combination had been diagnosed with ADHD, and might be looking for stimulants to help regulate their brains. Trends in drug use change. For the first time, the top three drugs were methamphetamines, cannabis, and opioids; though, alcohol has returned to the top three and opioids have fallen lower on the list.

Co-occurring and disregulated chronic illnesses contribute to drug use and addiction. People use drugs to cope with mental illness, pain, and symptoms of chronic illnesses. Genetics play a role. There is a high level of first degree relatives with similar addictions among Federico's client population.

Emotional and physical trauma is also a contributor. Along with the brain-based theories of addiction, childhood trauma should inform drug treatment and policy. People with a serious lack of self-worth, coping skills, and/or sense of competence (feelings of shame, disconnection) often seek relief through substance use

Social norms that endorse substance use also contribute. Many clients come from families where drug use is accepted, reporting their first use was with parents or siblings. Clients develop their thinking and behavior in this context, which then has to be addressed in order for treatment to succeed. Criminal thinking and behavior also fits in here. Counteracting the pattern of using in groups means helping people find healthy ways to relate and be with others. Federico commented: "Oxytocin is the antidote to opioids."

People who experience addiction do feel guilt and shame. They feel this less when high, but definitely feel it during detox and treatment. Those feelings can contribute to relapse. Some addicts do have anti-social behavior disorders, but most don't.

Federico spoke about barriers to treatment. People have to want it. She explained that 99% of her clients don't want to be there, so how do you deal with that lack of readiness? She referred her to the Cycle of Change.

If clients don't see a problem with their drug use, you have to approach it differently than when they are in the (narrow, short) window of readiness. The treatment provided while you are building readiness is hard, very complex. For people with polysubstance use disorders, the readiness varies for the substances (ready to talk about quitting heroin, but not marijuana). Starting with MAT can actually help people get ready for psychosocial treatment.

Managing cravings (obsession of the mind, compulsion of the body) is essential to all substance use disorder treatment – so that makes treatment for heroin, opioids harder than for some other substances. Detox stabilizes people, readies them for MAT. People with heroin disorders rarely get detox in Alaska – "it's a miracle to get into a program." Ambulatory detox can help capitalize on the limited window when people want treatment.

There are high and low levels of outpatient, high and low levels of residential. Then there is aftercare, like a cancer or diabetes check-up after treatment. Twelve step programs are not treatment (and don't consider themselves treatment), but they are critical to recovery.

Negative consequences of drug use widen the window of readiness. It often occurs in jail, emergency rooms, sleep offs, drunk tanks, after an overdose, after being assaulted, when kids are taken away, after a suicide attempt, after diagnosis of HIV or Hep C, when they become pregnant, when a loved one dies from overdose, withdrawal, . . . These are crises. Where do you go when you are in crisis? Usually a hospital, jail, or police. Those professionals do their job, but don't have a place to hand the person off for more help. Case managing people into treatment (which happens with mental health crisis patients) would help. MAT is also useful in many of these cases.

Motivation fluctuates during the treatment process. You have to work with the person to keep that motivation engaged. Integrating behavioral health services into courts, the corrections system takes advantage of that motivation.

Lack of resources for substance use disorder treatment is still an issue. Medicaid expansion helps, but isn't covering all the people referred by the legal system.

Treating addiction is more difficult because they have co-occurring mental health, trauma, FASD, intellectual and developmental disabilities, etc. This makes participating in drug courts harder.

Motivation is key, but so is learning to manage cravings. Treatment needs to last long enough to make it stick. Treatment needs to look at client goals as well as provider goals, court system goals.

Task Force Member Discussion of psychosocial and neurological bases for addiction.

Kim Zello suggested requiring furlough offenders to seek, pay for treatment (while ineligible for Medicaid). They are considered "in custody" and DOC inmate health is still responsible for providing their medical care. Jeff Jessee wants to explore that more. Katie Baldwin-Johnson added that, at the Juneau re-entry coalition meeting earlier that week, tribal representatives spoke about treatment options available but inaccessible due to DOC custody requirements. Federico comments that confined or un-sentenced placements at the halfway house cannot leave campus for any reason other than an emergency, so they can't go off campus for treatment. People on furlough can, though Lemon Creek Correctional Center still requires that medical, and psychiatric care go through inmate health.

Jessee asked how prevalent opioid initiation is through pain medication prescriptions? Federico answered about 50% of her clients started that way.

Jessee commented that it seems that physicians, dentists don't seem to be accounting for tolerance, withdrawal, and addiction process – and so they don't think about a need to prevent or address that possible consequence. Dr. Sonkiss replied that they do understand how tolerance to medications work, because they write prescriptions for higher and higher doses. He continued that part of the issue is that in the 1990s, CMS and Joint Commission identified "pain as the fifth vital sign," requiring doctors to treat pain more aggressively with opioids. Pharmaceutical companies aggressively advertising the medications also contributes to the problem. Before this, physicians didn't prescribe to the degree they do now. The tide has turned, with more federal and state regulation related to prescriptions, and use of Prescription Drug Monitoring Programs (PDMP). The pipeline to new addicts will narrow over time but "we have a gigantic mess to clean up from these policies."

Jessee: What can the task force recommend to accelerate that change? Dr. Sonkiss answered that the requirement to check the PDMP is already helping. Doctors don't have training in addiction. Doctors who write controlled substance/opioid prescriptions should be getting addiction education. Not a requirement, but encouragement, so they have better understanding of the downstream effects.

Ripley: Are there states that require this education for licensure? Can we ensure it happens for new doctors (through WWAMI, etc.)? Dr. Sonkiss answered that pharmaceutical funded CME influences prescribing practices. Before requiring addiction CME for licensure, look to see if states that have done so have had an impact at the population level. He wouldn't oppose new doctors participating in WWAMI having to have it.

Dr. Butler said states to require it, but he didn't know which ones. He's looked for free, good quality CME on the topic. The Alaska Medical Board in the past hasn't been interested in going this route.

Dr. Butler said he felt the information today was more than what most doctors received about the science of addiction. He's spoken to the WWAMI students, and so has future speaker Dr. Larry Stinson. WWAMI is open to outreach.

Ebbesson: How can we best influence the medical community to become more informed about addiction science?

Dr. Sonkiss: Be mindful of where things can go wrong – creating technical violations for medical practices. We got into the mess because of well-meaning CMS regulations.

Dr. Simon: Emergency departments (EDs) are the safety net for medical and psychosocial crises. About 5% of immediate release pain meds come from EDs. There are opportunities related to protocols in EDs.

Dr. Simon: Is there research comparing people addicted from opioid medications vs. heroin onset? Do people receiving buprenorphine achieve the same brain recovery as people who abstain?

Dr. Coleman: It appears the trajectories are the same. The severity of the psychosocial impact influences the success of treatment more than the source of the opiate.

Dr. Sonkiss agreed that EDs are not a major source of opioid prescriptions. We won't see a end to all opioid prescribing, because opioids are the backbone of treatment for acute chronic pain. Some people are more susceptible than others, so we'll always have addicts. Federico talked about the overlap between addicted, incarcerated populations. Also there is overlap between addicted and mental health populations. Masters level clinicians in the community mental health centers are the front lines, and they have no addiction training. That means they need more training before they can effectively serve their clients.

Maczynski: Can dietary supplements help? Dr. Sonkiss: They can be important to psychosocial treatment. If people thinks it helps, it helps – though there is no evidence or research that there is a neuroanatomical basis for think they might help.

Rep. Seaton: Are there any doctors using the 6 month buprenorphine implants? Is there a connection between that kind of treatment and the issue of tolerance? Ebesson replied that his practice is considering using that medication. Often people in treatment drop out when motivation wains, so the longer lasting medication might help with that. It also could reduce the risk of overdose. It's very expensive, brand new – but worth checking into. Rep. Seaton commented that use with criminal justice populations should be considered.

Dr. Coleman contributed that his stakeholders commented that trauma, ACEs predispose people to opioid use. Exposure through pain management is also common. Stakeholders also told him that easy access (youth getting medications from medicine cabinets at home, taking others' medications) was a common pathway. He highlighted Federico's description of barriers to treatment: the brief window of readiness, and where they appear. Those are really good points where we can expand access to treatment. He also asked whether the task force should be considering legal procedures for commitment to treatment – understanding that readiness for treatment is a necessary components.

Federico replied that an "orchestra of players" was needed to utilize Alaska's commitment statute, so it goes underutilized.

Love explained the difference between an alcohol hold and a mental health hold. Petitioners must show a danger to self, others, or the community – and they must have a treatment placement in order to be committed. Significant resources, effort is needed to get a court to issue an order – and then get the person into treatment.

Dr. Sonkiss added that there are ethical and legal concerns for commitment to treatment.

Ripley asked if there was research related to the connection between ADHD and stimulant use. Federico answered that she shared what was learned with her experience with her clients. Dr. Sonkiss reported some studies show that kids who had ADHD treated with stimulants were less likely to use methamphetamines.

PUBLIC COMMENT

Anne Johnson, Salcha

She facilitates twelve step programs in the correctional facility. The women she works with are at that place of readiness and it's a great opportunity to provide help. They get one NA and one AA meeting per week. They receive no other education or services (nutrition, trauma, meditation, etc.). She is a person in recovery. She used all sorts of drugs as a young

person. Prescription opioids were the game changer for her. Bridging out of jail into the community is important. She also spoke about her mother's difficulty in getting opioids for a broken pelvis (the doctor was very reluctant to prescribe -- because the doctor had received training and understood the limited efficacy of the medications).

Shawna Nutt, Fairbanks

Chemical dependency counselor and board member at Interior AIDS Association, she is also on methadone maintenance treatment. The stigma related to MAT must be addressed. Education and awareness are needed, so that people receiving MAT receive equal treatment. She was forced out of a job because she was receiving methadone treatment. People trying hard to recover shouldn't be treated unfairly. The attention is paid to people who abuse the MAT, not to the success stories.

Michael Pearson, Ketchikan

He is a business owner in Ketchikan. Use of opioids, drugs has a devastating effect on the workforce. His company is "a second chance employer with a last chance program." OARS is a program for employees -- 16 people working to support each other right there in the shipyard. They are partnering with WISH (the local domestic violence shelter) to help people address trauma, build resiliency. They have meditation there, and it's required of leadership at the company. They understand that resiliency helps employees deal with stress, be successful. Partnering to bring solutions into the workplace is essential.

Dr. Butler thanked the public who commented and the presenters, and the task force members for their participation. Ebbesson commented that anecdotal knowledge is bearing itself out in the research.