

# GuestHour\_March2025

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## SUMMARY KEYWORDS

Brain Injury Association, Maryland, Brian Pugh, traumatic brain injury, awareness, rehabilitation, fall prevention, COVID impact, long COVID, opioid overdose, telemedicine, rural health, advocacy, helmets, support groups.

## SPEAKERS

Brian Pugh, Announcer, Ashley Biggs

### Announcer 00:01

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### Ashley Biggs 00:21

Welcome back everyone for another LBPD Guest hour this month is about the Brain Injury Association of Maryland, and I am so excited because we have the Executive Director Brian Pugh here with us. Brian Pugh is a dedicated and passionate nonprofit executive director and educator with a strong track record in fundraising events, community education and program development, as the executive director of the Brain Injury Association of Maryland, Brian has successfully improved the organization's sustainability through grant writing, event fundraising and membership development, the website and 800 number handle over 2000 visits and 300 calls per month since 2016 the Brain Injury Association of Maryland has curated and distributed a weekly e newsletter, five thoughts Friday that reaches over 6000 recipients nationally, and hosts a bi monthly podcast called The Brain Injury connector. That podcast provides education and inspirational stories for the Brain Injury community. Brian also leads a weekly online national check in chat support group. He's committed to making a positive impact on the lives of those in need, particularly those with brain injury, their families and the healthcare community that serves them outside of work, he enjoys reading yay in the library. How to say yay to that? Journaling, traveling, playing guitar, watching movies and spending time with his family. So welcome, Brian,

### Brian Pugh 02:01

thanks, Ashley. Thanks so much for having me. This is really a great opportunity, and I'm so so glad to be here. I just gotta say, you have a voice for podcast. Yeah, you know, I have a face for podcast, is what I say. But yeah, I, you know, I was, you know, DJ in college for a while, and, you know, take great joy in talking to people. So it's been really wonderful. We're we just started our sixth season of our podcast, brain injury connector, shameless plug number one, and there will be many others, I assure

you. But yeah, so we have a real great opportunity, and I've been blessed to be able to talk to lots of really great people. So thank you. No,

**Ashley Biggs 02:39**

not a problem. I'm going to jump in with our first question. Sure, this is, you know, Traumatic Brain Injury Awareness Month is in March, and I'm guessing there are a lot of people who don't even realize that traumatic brain injury can happen. So what is the estimated number of people in Maryland living with long term disability because of traumatic brain injury. Well,

**Brian Pugh 03:06**

you know, it's pretty incredible. And one of the great challenges we have in this space, and we were talked a little bit off, off Mike about this, is that, you know, despite the fact of the numbers, and they are pretty staggering, right now the estimate is with it, with the latest census, the latest numbers, we've got over 123,000 Marylanders living in, you know, in our state, living with a TBI disability, so traumatic brain injury. And if you combine that with non traumatic brain injuries, or what we call acquired brain injuries, including stroke, you've got up to 618,000 Marylanders living with these, with these, you know, very, very challenging situations. And it's not just those individuals. The way we talk about it is that 618,000 families, that's 618,000 neighborhoods and communities. Because typically, if somebody's injured, to the extent that, you know, they're impaired, they're no longer able to do, you know, be the PTA parent, they're no longer able to coach the basketball team. They're no longer able to be the deacon in the church, or they're no longer able to be the lecture in the temple. So it's a it's a hugely impactful number. We know most recently that there were over 35 or around 3500 TBI related hospitalizations and and over 11,900 Marylanders who had to go to the ED where their primary primary diagnosis was traumatic brain injury. So it continues to be an issue nationally. We're looking at probably 586 to 600 hospitalizations a day. That means people injured severely enough to have to spend overnight. And then, of course, the tragedy is about 190 people die every day of brain injury. So it's a huge number. We know that, you know, the vast majority of those folks are, the majority, you know, fall into two categories. Are going to be over 75 or under five are the ones that are getting, you know, the the injury. You know, some of these injuries, and for a variety of reasons, you know, the younger kids are little more reckless learning how to walk, things like that. The older population, you know, and I kind of make the, you know, the light joke of, you know, the generation that believes they invented skateboarding, the generation that believes they invented surfing, the generation that believes they invented rock and roll, the generation that believes, you know, that they created kite surfing, you know, all these things that. So they're, they grow up thinking that I can still do this, but they're writing checks that their bodies can't cash, you know. And so, you know, they're kind of thinking, I can still, oh, you know, I used to be great on a skateboard. I used to bike all over the world and, and so they can put themselves into situations not realizing the challenges of just aging, regular aging. You know, balance gets impacted, and vision gets impacted, and hearing gets impacted. And you know. And you may be changing medications, you know, there may be other things that can happen. So you may be creating situations where, you know you're out doing an activity that normally you would do, and you can injure yourself, you know. And so a lot of what we're trying to do is just with things like this and with all the other things, is spread awareness about it. But the national trends are about 40% are falls. 40% of brain traumatic brain injuries are created by falls. A little bit less percentage are going to be blows against or for. That's when you're running into something or something you know, being hit by something, being struck by

something that can be your your accidents, motor vehicle accidents, which a lot of people think of, is going to be the primary one, that falls, you know, much less than, than in actual falls. And then you have other, you know, other things like situations in domestic violence, crime, things like that. So those are also impactful in brain injury. But Falls is the number one. So fall prevention is really, is really key.

**Ashley Biggs 07:03**

I'm just imagining my 90 year old grandparents. They're, they are that generation that believes that they invented rock and roll, right? They're still gallivanting around the country and

**Brian Pugh 07:16**

absolutely and as well they should, and there's no reason not to. It's just you need to. It's about awareness. It's about being mindful, about those kinds of things, recognizing. You know that you may have to take things a little slower. You may have to, you know, maybe give up those double black diamond runs and go for the blue runs, you know, things like that. And it's, it's really more about safety. And then, you know, also, the thing that I've been out it's, so January is winter sports Brain Injury Awareness Month, so that's one of our outreaches. And so I've been on TV stations over the last couple of weeks, and radio programs and podcasts to try and talk about, you know, just being aware of, you know, when you're sledding, you know, don't do it on a crazy Hill. You know, be aware of your surroundings. Wear helmets. You know, we're always really trying to get skiers and snowboarders sledders to wear helmets, just as an abundance of caution. And I just had a story two weeks ago of somebody who normally wouldn't wear a helmet, but just but decided, since they are getting up in age and they wanted to continue trying to do these more strenuous runs, they put a helmet on and just that run at the towards the very bottom, they hit a patch of ice, went back, lost their skis, went back on their head and struck their head on ice. And, you know, he says, If I had had that helmet on, it could have been a whole lot worse. You know, it was already, it was already challenging. You know, it hurt and, you know, rang his bell. But, but by having the helmet, it prevented, you know, a significant injury. So, yeah, it's it, you know, we talk about anywhere, anytime, anyone, you know, this isn't a blue state injury or a red state injury or ethnic injury or a gender injury. It just it can happen to anybody at any time, particularly when you start including the ABI, the acquired brain injury. And we're talking there about strokes. We're also talking about overdoses. We're also talking about brain cancers, you know, all these other things that can that can happen so it can be challenging.

**Ashley Biggs 09:15**

It kind of makes me wonder how many new cases of traumatic brain injury are reported every, every year here in Maryland, because it sounds like, if it can happen to anybody in time, for reason, that number's got to be astronomical. Yeah,

**Brian Pugh 09:32**

and that, then that goes back to, you know what I talked about, the the under reporting. We're we have, we have hospital, we have emergency room visits, we have hospital admissions, but we don't have people that, you know, maybe go to a minute clinic or maybe go to their pediatrician, or just don't go anywhere at all. You know, there's a lot of that. And so we know that it's that, it's, you know. Significantly under reported. But you know, you're getting, you know, these 1000s and 1000s and 1000s of cases and admissions and overnights, and, you know, recognizing that, you know, the

overnight hospitalization that's a significant because they really do want to try and, you know, discharge people length of recovery. You know, we say every brain injury is different, every recovery is different because every brain is different, which makes it kind of challenging when you're thinking about, you know, what, how long it's going to take to sort of recover. Some people can recover in a couple of weeks. Some people takes months. And some people just really don't ever fully recover, and have to find, you know, new ways of having a new normal.

**Ashley Biggs 10:46**

That's hard. That's really hard. A couple of my questions to you all focus on, you know, we talk about focusing on stats. You know, I think you answered this already. But just to reiterate, you know, the leading cause of traumatic brain injury in Maryland. You said 40% is falls. Yeah,

**Brian Pugh 11:06**

falls. And that tracks nationally. It's about the same. So the national trend is about 40% Maryland, just, I'm going to say, you know, 38 whatever you know, just within 40, about 40% so, you know, the reality is, and like we talked about, it can be as simple, you know, just coming off of right now. You know, as we speak, there's, there's snow on the ground in Maryland, and there's been snow on the ground for four weeks, and it melts and freezes and melts and freezes. And so, you know, we know about black ice and how slippery that can be, and how challenging that can be, if my vision is kind of impaired, or it's or this, or the ice is under the snow, and I'm not really paying close attention, that's a slip and fall, and that can, that can really be a problem, and it's one of the reasons I was getting out, you know, to talk about, you know, remember, sometimes your injury doesn't, doesn't occur on the ski slope. It's in the parking lot trying to get to the ice rink, you know, because you step and slip and fall. And that's, that's very, that's very common in this you know, this time with all this kind of stuff going on, other times, you know, changing a medication, you know, my blood pressure medication, or whatever I'm on, you know, that can change if I stand up too quickly, I can fall down. Being in the bathroom, of course. You know, slip and fall. It's very easy to do that in the shower, standing, you know, because the wet and the slick, and then, you know, when you're getting out doing things like, you know, riding a bicycle without a helmet, or even riding a bicycle with a helmet, but, you know, doing jumps or doing motocross or things like that, one of the things that we were worked very hard to get a helmet law passed for horses, riding horses to equestrian events. So right now, as of October of last year, if you are riding on public lands, public pathways, public parks, or if you're in an equestrian facility and you're under 18 years of age, you need to have a helmet. You need to be wearing a helmet, because, you know, again, any kind of fall off of, you know, even if you just fall, even if it's not, if you're not bucked off or thrown off, even if you just fall off a horse. You know, you're falling essentially off of a step ladder. And the smaller you are, the further you fall. And so you know, to have kids and helmets, you know, again, it's not, it might not necessarily prevent injury, but it will certainly mitigate the injury. Can certainly reduce the injury, and without it, it can be a lot more, lot more tragic. So there's, there's all kinds of ways in which, you know, these kinds of things can happen, and we try to pay attention. One of the other ones that were really, really well, there's two things that that are my if I have soap boxes, if anybody makes soap boxes anymore, I don't even know. Haven't seen one in so long, but I carry mine around. But you know, one of the big fallout from COVID is what's called Long COVID. And it is a real thing. You know, one of the things that happens when you had COVID, and particularly one of the reasons we were looking for ventilators is because you weren't having sufficient oxygen going into your body. And the most greedy

oxygen user in the body is the brain. And so if you're not getting sufficient oxygen, your brain's not getting sufficient oxygen. And if you're on a ventilator, that means you're really not getting sufficient oxygen because your lungs aren't able to bring, you know, to bring in the oxygen you need. So a hypoxic brain injury means that you're getting insufficient oxygen for a long period of time, which means things can start to die. Parts of your brain can start to die. An anoxic brain injury, which is where there's no air or no oxygen going to your brain. Things start dying fairly rapidly. You know, they can die within minutes. And so, you know, what we're seeing is that people, even people that didn't have even people that weren't on ventilators, that lack of oxygen for a very long period of time, can create brain injury. Symptoms. And these are real, you know, the fatigue, the confusion, the fogginess, the balance, the headaches, all of these things are real. And so, you know, one of the, one of the challenges we're facing against the stigma for the long COVID is, oh, I had COVID. It was like, really bad flu. And, yeah, it was awful, but, you know, I got over it. So, you know, what's wrong with you? What? What makes you different? Well, it, you know, again, every brain is different, every brain injury is different, every brain injury recovery is different. So that that can be very different. And so we're trying to let people know and destigmatize this whole concept of long COVID, because it is very real. It is very impactful. It can challenge, you know, it can challenge your ability to do anything any day to day, and it certainly can be disruptive to your work. And so trying to get disability on long COVID is particular of import to us. And then the other piece is opioid overdoses. Because even though COVID kind of took that off the board, they we were still getting, you know, still getting overdoses, overdoses, overdoses, and you know, we're, we have really good responses now, with the with the Narcan, you know, and those being, you know, you don't need a prescription anymore, and you can get them for free. And so at least you can carry them. And so if you're have somebody who's got a substance use problem in your family, or you want to at least be prepared, or you're in a workspace that may, you know, be working with people that may have substance abuse disorders. You know you can have that available to you, but with the types of fentanyl and the new, even more synthetic opioids that are that are out now, you know, it's taking just less and less to do worse and worse. So, so despite all that, again, what is a what is, what's an overdose? Well, an overdose is when your brain has insufficient oxygen and it and you pass out, and so, and if you pass out, you know, depending on where you pass out, you can hit the ground, you can hit a counter, you can hit hit a chair. So now you got two brain injuries, right? So people are, you know? I know. You know. I know when my son is drug seeking, or I know when my son needs his drugs or wants his drugs. I know if he's over this person's house, he's probably doing drugs. I know. I can probably point you out to the houses where he's getting them and using them, and I know what he's like when he's on them. Now, you know, I've spent, you know, he overdoses. I spend a week and a half at Shock Trauma wondering if he's going to be alive. Now he comes home. Now he's sitting in the basement, lights out, won't even play video games, really irritable, really angry. I've never seen him. I don't know what this is about. I don't know who this this this child is. The reality is, he's got a brain injury in addition to a substance use disorder. And until we start taking a look at through that lens and start treating these folks with that idea, you know, we're setting them up to fail. You know, when we're looking at programs that are absolutely well meaning and absolutely necessary, and we absolutely need them, but if I have a brain injury, I have a huge you know, I may have a sensitivity to light, I may have a sensitivity to sound, I may have fatigue. Well, if I've got you in a 28 day detox program and I make you sit in group therapy at three o'clock in the afternoon under fluorescent lights, with a lot of people yelling around and screaming around. And, you know, I can see the fluorescent lights blinking because of my sensitivity, the sound is SO and three o'clock in the afternoon, I'm fatigued. My brain is



exhausted from just functioning. I mean, you're setting me up to fail. And if I'm on some kind of, you know, if I'm on a court order, you know, mandated rehab, I'm going to end up violating just because I can't stand it, and you're going to put me in to into prison or to jail, and that's the last place I need to be. So, you know, we just need to sort of have, you know, a lot of outreach in those areas to be thinking about, and it's, you know, it's just an additional thing that we need to consider when we're talking about trying to help people succeed and people recover. And that that's also why one of the one of our other initiatives is, you know, harm reduction, that can, that can go a lot of ways, and a lot of people fall on two different, you know, various different camps on that. But the reality for us is, if we can ensure that you, you know you're, if you are, if you are so hooked on your substance that you know you the giving it up or or not doing it anymore, would be, you know, detrimental to your health. If you can't, if we can get it to where you don't overdose, we're going to prevent a brain injury. You know, every, every overdose that we prevent is another brain injury that we don't have to sort of wrestle with. We can just focus on the substance use, as opposed to on the brain injury as well. So, you

**Ashley Biggs 19:51**

know, I never thought of that. I never thought of, you know, I have, I have friends of all different ages and backgrounds. You know, across this country. Rate. And you know, a lot of the public libraries now are, you know, trying to make sure that people with different abilities have access to tools and resources. So they're doing programs like us, you know, like podcasts and things like that. But I haven't heard any of them talk about brain injury in relation to the double whammy of either an accidental overdose or not? So that that's interesting,

**Brian Pugh 20:29**

no? And the thing is, you're not alone. And one of the reasons we keep talking about it is because, I mean, I have spoken with, you know, county health department doctors, and they're saying, Oh, my God, you are absolutely right. I haven't really thought about it. And, you know? And I try very hard. I try very, very hard, although it's challenging to not be the guy with the hammer and see nothing but nails, right? Everything's a nail, right? So I get it. But the reality is, if you can, and this is part of our outreach. This is why we do this kind of thing. It's why we do our podcast, where we do our our newsletter, if you can at least put on a brain injury lens, or at least be open to the possibility that there's a brain injury component here, I think it can change your perspective, and it more, more importantly, it can change the way in which you approach the treatment of that. You know, same thing with you know, maybe you know juvenile delinquency in the schools, you know, rather than kicking these kids out of school because they're quote, unquote bad or they're bad influences, or they can't control them. So how about take a look and maybe do, and this is one of the things that we have recommended for years, is maybe do some kind of inventory or screening to sort of see if there could be a possibility a history of brain injury, which is, can be very likely depending on the socioeconomic background, because we know that that tracks, you know fairly closely, so particularly those that are under reported and underfunded. So you know, if we can find out, maybe this kid was fine in middle school, because he could kind of keep up, but now we've changed him into high school. Well, now that brain injury is really impacting because it's a lot more self management, a lot more homework, a lot more stress, larger people, lots more influences. And, you know, maybe he's, he's struggling, or she's struggling as a result of that concussion she had when she, you know, got knocked off the swing set in middle school, or, you know, or was, you know, punched and beaten by her, his mom's girlfriend, or, you know, whatever. So, yeah,

we need to, we need to be sort of aware of that. But once you put that lens on, you can take a look at maybe. Can we take a look at people and incarcerated? Can we take a look at people that are, you know, in homeless shelters? Can we take a look at people that are in mental health institutions and see if there's a brain injury piece. And then, if we can, let's, let's then use some of the tools and techniques and that we can to work with them on that aspect of it, and then maybe allows us to sort of free up and focus on the other piece

**Ashley Biggs 23:16**

well. And that, that kind of brings me to my next question, you know, rehabilitation costs through a brain injury lens. Yeah, I'm guessing that that is not cheap.

**Brian Pugh 23:30**

No, it can go, you know. And the range is anywhere from 2500 to 400,000 and that's per year, and that's per you know. So

**Ashley Biggs 23:40**

is that like all of Maryland, or is that like one person? That's like

**Brian Pugh 23:44**

one person? No, that's like one person. It can be, you know, and it really depends on length of stay, the surgical interventions, you know, the ot the occupational therapy, the physical therapy, the, you know, Speech and Language Pathology therapies, all the different therapies that can be used and available. And, you know, one of the great challenges has been it's all insurance driven. So much of it is insurance driven. And so if you, if you go back to, and I was talking to one of, one of our longtime board members, you know, when they were first getting into this, you could get you could get rehab that would be between six months and eight months post injury now and that the injuries haven't gotten any any lighter, but now you're lucky if you can get about 11 days of acute inpatient rehab. Sometimes it can go longer, depending on on the payer, depending on the situation, but the vast majority of folks, it's really, it's really diminished down to almost nothing, simply because, simply because of the cost. One of the great, one of the great advantages of being in the state of Maryland is that we have so many fantastic. Plastic hospitals, just, you know, stellar brain injury programs, you know, gold standard worldwide types of programs. But the reality is, it's also very expensive to be in Maryland. And so the you know, while we have access to these great these care opportunities, it's also can be financially prohibitive to to many, particularly those that are either underinsured or uninsured and and that can be really problematic. But you know, you're, you're looking at multiple 1000s of dollars, at a minimum, to hundreds of 1000s of dollars, you know, a year to keep to keep folks functioning well.

**Ashley Biggs 25:43**

And I guess the thing I'm hearing is that even with rehabilitation and all that money put in, that there are long term effects, especially if they they only get 11 days, right? You know, what are you seeing as, like the common long term effects So

**Brian Pugh 26:08**

traditionally, and this is also evolving traditionally, you would have mild, medium and severe categories of brain injury. Mild would typically be resolved back to sort of your more typical day, within a matter of weeks or months, anything longer than, say, three months, it starts getting more more challenging and problematic. That's going to be headaches, light sensitivity, smell sensitivity, perhaps, balance issues, cognitive issues, behavioral issues, and those are all in varying degrees. Some of those can come back online, and some of them don't. As you start getting more severe, and this is going to be, you know, the the worst car crashes, or the the worst, you know, skiing accidents, or the assaults, the criminal assaults, or multiple overdoses, you're going to start really getting into severe cognitive and behavioral issues, probably balance issues and and that's when you start getting into, you know, the more expensive treatments to try and to try and keep people the other thing too is that there's a, what they call a comorbidity, meaning that two things can be happening so and if you've got a substance abuse disorder, it could be three. Sometimes, if I've got, if I'm sort of on the verge of some significant mental illness and significant mental illness challenges, I'm able to cope, you know, with my like, maybe with my OCD, or I can maybe cope with a little, you know, cope with some of the schizophrenic tendencies or some of the other anxiety or depression issues. I can kind of cope with it. But if I have a brain injury now that that coping ability, that that executive functioning that's allowing me to sort of go through my day that may be gone. And so that's when, you know, significant mental illness maybe, maybe arise. And so now I can't, and I have my depression is no longer controlled, or my anxiety is rampant, or a paranoid schizophrenic, or, you know, all these other different, you know, diagnoses. And so you then have both this physical, the physical and emotional, cognitive behavioral manifestation with you, then you also have these, these mental illnesses. And the other challenges is, when you're trying to medicate for somebody for that, the medications are all designed for people that that are neuro typical. So, you know, if I'm giving you this prescription or that prescription, I know it's going to work, you know, 99% of the time for these kinds of people, but if it were not, we it's not been tested for people that have had a significant brain injury. So there is a lot more challenge of trying to make sure that, you know the prescription is appropriate, that it's going to work. And then the other thing too is, if I've got memory issues, I'm going to forget. Did I take the pill? Did I not take the pill? That. Where do I put the pill? You know, and so you're adding in this, this additional level. Because, you know, when your executive functioning is damaged, you lose that ability to plan. You lose that ability, you know, just any of, any of those kind of routines and memories. So, you know, that becomes some, you know, challenging and problematic for those kinds of folks, too. And so it also presents, you know, even more challenges of, okay, now you've got somebody who was taking their drugs to deal with the voices in their head. It's now giving me an overdose. So now I have a brain injury. So now I have, you know, this craving for this drug, I have an executive function. I was already making bad health choices for myself, and now I don't have the ability to make different health choices for myself. And you know, my mental illness is is raging, and then you get into this sort of back and forth of, okay, who's going to treat this person? Do I need? Need, do I need somebody who's going to deal with a mental illness? Do I need a neurologist to deal with the physical you know, do I need to deal with a substance abuse counselor or pain management? Because, you know, there's significant pain involved, headaches, body aches, you know, those kinds of things, because your your brain controls everything, and if it can't understand the things that are going in and processing them, you start getting all these kinds of issues. And then, you know, then you start really getting, you add one more component into it, which is age. So think, you know, as you're aging, things are changing. We've talked about that. You know, your balance and your hearing and your vision are all those are just naturally occurring. But what if? What if there are they



accelerated by your brain injury? Are they exacerbated by your brain injury? You know? Are you no longer able to so, because your brain controls everything, it can be just, you know, which is one of the reasons why it's such a complicated injury, which was one of the reasons why it's such an expensive injury, because it's not just put a cast on it, wait four weeks, go to physical therapy, go back to the gym, and now you're, you're, you're rock and roll. It's, it can be this evolving thing. And one of the, one of the changes that happened last year is that the federal government recognized, or after years and years of trying to change the way in which is categorized, a portion was was recognized as a chronic condition, not unlike diabetes, in that it involves lots of systems in the body, and involves. It can be a variety of different things for a variety of different people, and it doesn't go away. It's something you have to kind of live with and manage over time. And that changes the ability to get well, relatively speaking, with the current system in the federal government, it changed the ability to to get certain benefits, you know, around brain injury. And so we're gonna have to see how that manifests, because it only just happened last, end of last year.

**Ashley Biggs 32:11**

Well, something you said really struck me, going back to this rehabilitation of brain injury. And you know, you said that Maryland, if you're going to have a brain injury, be in Maryland, basically, because you Well,

**Brian Pugh 32:26**

I didn't say that, but yeah, we are very blessed to have some amazing, you know, great hospitals, shock trauma hospital, Sinai, Sinai rehab, University of Maryland, rehab, Adventist, NRH, NIH, Walter Reed, you know, the div pick, these are all just cutting edge programs that are doing amazing work in brain injury. But they are, they are expensive. It's very much insurance driven. Well,

**Ashley Biggs 32:56**

the thing that's popping into my head is, you know, Maryland has a lot of rural areas, and it has, I'm, I'm particularly thinking of people in Western Maryland who don't have easy access to Johns, Hopkins, umh or or University of Maryland. And sure, you know, how does support services vary across Maryland? Because Is there a difference in I mean, I obviously all the science is the same and the end goal is the same. But does access change depending on where you are in

**Brian Pugh 33:36**

Maryland? No, it's a huge issue. And the way I describe it is that we have on the i 95 corridor, we have lots and lots of resources. But as you start drifting 10 miles, 20 miles, 30 miles, 40 miles off of I 95 it starts getting really, really challenging. And when you're talking about the areas like you're talking about, you know, out in Cumberland and Western Maryland, or even if you're talking about, you know, down in La Plata, or on the, you know, on the western shore or the Eastern Shore, getting out in those areas too, it gets really, really challenging to find programs that are able to provide these kinds of, you know, really high Quality and impactful so, you know, one of the things, one of the very thin, thin silver linings of COVID, in my mind, this is my opinion, not necessarily anybody else's, is that the greater acceptance of telemedicine for reimbursement rates. For a very long time you couldn't get reimbursed unless you physically saw somebody and or if you did a telehealth, it was reimbursed at a different rate, or if at all. And so with COVID, that sort of created this new opportunity to be able to have, you know,

the Kennedy. Krieger or the Johns Hopkins, you know, the Kennedy Krieger for kids, or the, you know, Western Maryland, could, could have access to Johns Hopkins doctors through telemedicine, you know, and so you some of that stuff would be, let's try to do as much as we can online, and then if we absolutely need to get you in for whatever to put hands on or to then at that point you're going to need you to drive into, into the city. But it's for a targeted purpose. It's not just to go preliminary, and you know what I mean. So it makes it a little bit little bit easier to drive over their mountain, drive over South Mountain, or to drive over the bridge, to come in and to get those services. So, so that's really a benefit. But what it, what it also did, as, you know, COVID immediately pounded into the ground for us, you got to have broadband where you are to be that work. And so, you know, this is where I think, you know, maybe libraries were impacted too, because the only person who had broadband in the county at the time was was, you know, either the community colleges, the colleges, the schools, or the libraries and but you don't want to have to be talking to your doctor, sitting, you know, next to people that are, you know, watching YouTube videos. So it was kind of, it's kind of a back and forth, but, but the reality is that, and with the changes in telemedicine, that has helped being in rural health, you know, and we've worked with the Maryland Rural Health Association to try and ensure that we can try to make sure that those, those kinds of things get out. And then the other thing is, we, we spend, you know, a great deal of time and energy on our website and on our on our social media stuff, so that, you know, people can at least have access to those kinds of resources and at least make phone calls, you know, to talk to us about things. But when you're talking about actual, you know, how many brain injury experts are there in the county health system in Garrett County? I don't know how many in Allegheny County, I don't know. They would probably try to defer. But again, and that, that goes to some of the, you know, the under reporting part. You know, statistically, that if I don't have a word to go, then I don't go anywhere, you know, right? Have to deal with it. Or

**Ashley Biggs 37:30**

I'm thinking of things as simple as well, not as simple. Diabetes is not a simple disease, no, right? You know, things I'm thinking, you know, just getting an appointment for that can be incredibly difficult. Telemedicine has helped with that.

**Brian Pugh 37:49**

But then, you know, medication, medication monitoring, it doesn't help. The expense of that. It doesn't help, really, any of those kinds of things. County health systems were completely hammered during COVID. They're probably kind of recovering, but really not, you know. So they're reeling. And so if I've got a choice between all of these people in my county, if I've got, you know, if I'm in, let's say Calvert County, and I know that, you know, we've probably got 7000 people with TBI in my county, which is the of the last census. That's about the number. And I've got 100,000 or 50,000 people with diabetes, you know, I gotta, I gotta focus on my diabetes, folks. I can't, I can't, really, I don't have the bandwidth, it's, you know, or the more the money, or the funding to sort of go out and make sure that the my people with brain injury and see for us, you know, one of the great tragedies in our mind, which we continually try to bring attention to in Annapolis, is, and I think these numbers, these are, you know, I can't get quoted on these, but the The numbers that I can remember that are recent, you know, we know that there's probably about 1500 kids, maybe even closer to 3000 kids that get taken in, that we know about to eat. You know, the emergency departments. Some, you know, some get admitted. Some don't, but, but right now, you know, there's around 250 kids that are designated having benefits in the school

system based on TBI. Well, even if you take and that's that's going through, that's three through 18. You know, 202 50 throughout the state, throughout the entire state of Maryland, and we know that we're getting between 15 103,000 emergency room visits with TBI every year, right? So even if it's 10% every year, where are those kids, you know, you know, and how are they succeeding? And so you know, that's why we continue to go back and say. Hey, we test for vision that's really impactful for education. Hey, we test for hearing that's really impactful for for education. We make sure you have your vaccinations. But we don't really care about how you think, how's your brain working, what? What is more impactful to education than having a functioning brain or to be able to get kind of adaptations to test taking times, scribes, you know, breaks, those kinds of things that you know don't necessarily cost a whole lot of money, particularly now with AI. I mean, shoot, I just, you know, turn on the thing and let AI write the notes out for me, right? So those don't really directly impactful, but they certainly are impactful to that kid and that could success. So rather than maybe, you know, allocating them to, you know, kicking them out of school for being quote, unquote bad kids, why don't you just give them this, give them some stuff to help them succeed. Once you put on that you know your your brain injury lens, and realize you have an opportunity here. And so those, those are all missed opportunities we see well,

**Ashley Biggs 41:11**

you know, and that actually kind of makes a lot of sense to me. We like

**Brian Pugh 41:17**

to call it a no brainer, but that's kind of, that's an inside joke.

**Ashley Biggs 41:22**

It's not a bad one. I've heard worse. You know, my partner runs around and tells dad jokes all the time, and I'm just like, All right, yeah,

**Brian Pugh 41:30**

a lot of the things that we're advocating for, we think are no brainers, but you know what?

**Ashley Biggs 41:35**

So I know that the Brain Injury Association of Maryland does a lot of advocating, and you know that that's part of the reason I really wanted you to come on and to talk, because I think it's so important to advocate for better care, better access, assistive technologies, things like that. What programs are in place to prevent brain injuries? Uh, you had mentioned something really cool, where you had said that you were you, you got a law passed where kids have to have a helmet on a horse. Mm, hmm, you know, I know that people keep going, Oh, they're just riding a bike. They don't need to wear a helmet, right? You know, struggle with that too, yeah. But what? What's coming up? Yeah? So

**Brian Pugh 42:28**

I will tell you that a lot of what we do is outreach, just to bring awareness. You know, people, it's like, Hmm, I didn't really think about overdose, I really didn't think about COVID. I really didn't think about maybe domestic violence or human trafficking is impacting being impacted by brain injury. The individuals in that are, you know, trapped in those kinds of situations, may be impacted by brain injury. So we try to bring awareness and outreach on that. You know, like I said, we just finished winter sports

Brain Injury Awareness. That's January. Another thing that is coming up is March, is Brain Injury Awareness Month. We'll have an awareness day on Capitol Hill to try and bring awareness to that. The TBI Act, which we thought was going to be passed in the last Congress, didn't quite pass. And so the TBI Act funds a lot of brain injury programs throughout the country. It helps support CDC investigations into brain injury, and so that's another thing that we're trying to see, if we can make sure that that continues. So we advocate for not just ours, but for all, all states individuals with brain injuries to have the funding needed, because it's so such an important you know, 2 million people a year in the United States are affected by this, and so that that far outweighs, you know, many, many other diseases that are that are funded rightfully so, that they should all be. But the reality is, this one is a very impactful so we're doing that. We'll do awareness, or new awareness day there. We've done Awareness Day in Annapolis during March, we have an annual conference this I think we're coming up on our 40th annual conference. Close. Wow, maybe 38th or ninth. Anyway, we've been doing it a very long time. We bring in people from all over the country. Typically have between 350 to 400 people there for over two days. That'll be April 3 and fourth. So that's one of our outreaches that we do. We bring people, individuals with brain injuries, family caregivers, educators, healthcare professionals, come in and we learn, you know, talk about the latest and greatest things in cutting edge stuff that's going on in Brain Injury Research, brain injury outcomes, in addition to things like mindfulness and taking care of caregivers and those kinds of programs. And then we have Stroke Awareness Month is May. So we do outreaches there so and we go to Maryland Rural Health Association, their their conferences, to try and make sure that we put and then we sit. A lot of work groups and a lot of training groups. And then one of the things as we're recording this on January 30, I'll be going to Annapolis on Tuesday to testify in opposition to a new Senate Bill, which comes out every year to try and have motorcycle helmets. The requirement for motorcycle helmets be removed so that people can ride on ride on Maryland roads without ride on motorcycles on Maryland roads without helmets.

**Ashley Biggs** 45:33

No, that's a bad idea. Well, you know,

**Brian Pugh** 45:37

we think we think so too. There's a chunk of folks that don't think it's a bad idea, and so every year we we have to try and convince the legislator that motorcycle helmets is a good idea. I

**Ashley Biggs** 45:52

actually witnessed a really bad motor accident, motorcycle accident, about a year ago, right near my house. And you know, you don't, everyone doesn't really, I mean, people don't realize that a lot of accidents happen very close to home, sure, but this gentleman was riding his motorcycle, and he he was not wearing a helmet, he was not wearing any body protection at all. He was, you know, no shirt and Jean short, and he popped a wheelie. And he was two cars in front of me, or two, you know, vehicles in front of me, and he caught the wheelie as he was riding in the middle of the road, and he landed straight head down and skidded probably 30 feet across a two lane, you know, road into oncoming traffic, and he, we, you know, all of us stopped. We all, you know, we got him into an ambulance and things like that. But just the idea, I mean, of, I mean, that could have been a brain injury ready to happen. It

**Brian Pugh** 47:00

was, it was a, I will tell you right now, and I'm not a doctor. I don't play one on TV, but I will tell you right now, there's, that's a brain injury involved, for sure, for sure,

**Ashley Biggs** 47:11

my, my step kids love to ride their bikes without their helmets, and that drives me nuts. Um, you know, and I, I, I'm very much a helmet person. So just because I have seen through years of working with the public, you know, people who've had stroke and had traumatic brain injury, individuals who've fallen, no, I just don't want to see that happen to people I care about. So, where's the helmet? Yeah, and,

**Brian Pugh** 47:44

you know, our, our mantra is, if there's a helmet for your sport, wear it, um, you know. And there has been some awareness, you know, with the some of the football players now wearing the the extra protection over their helmets, which may or may not, you just got to recognize that, you know, helmets are designed. And even the little, the tiny, little language on the back of the disclaimers on all the helmets is, you know, it's prevents brain death. That's what it's designed to do. It's just prevent for you to die, not die, and if you don't die, then, then it's done its job. But the reality is, without that helmet, things would get a lot more complicated, a lot quicker, and can affect a lot more things. And so, you know, one of the, one of the challenges, particularly with, you know, kids wearing bike helmets, you know, they're gonna mirror they're gonna mirror their peers, number one, so if you can make it cool for their peers to wear their helmets, or have helmets or and then number two, they're going to mirror what their parents are telling them, or their parents are doing. So if, if mom and dad are wearing helmets when they ride their bikes, you know, as younger kids, of course, then they're going to be, they're going to wear, they're going to probably more likely to wear their helmets, particularly mom and dad say it's okay when they become teenagers. Become teenagers, of course, you know, they stop hearing what what comes out of the parent's mouth. But that's when it becomes so important to make it cool to wear a helmet, you know. And so anything we can do to advocate, to try and make it cool to wear a helmet, you know. And a lot of the X Games folks, they wear helmets. And a lot of the you know. So some of these kids, you know, some of the folks, skateboarders, are a little bit better about wearing helmets. I was distressed. You know, some of the advertising for the Olympics with skateboarding didn't have the folks didn't have helmets on the advertisements. But when they were actually doing it, they were, most of them were wearing helmets. So, yeah, try to make it try to make it cool. That's really the challenge.

**Ashley Biggs** 49:43

So well, I want to tell people how to get in touch with you sure, because, you know, your website has a wealth of information, and it's written in a lot of ways that makes it accessible. You know, when you're dealing with something as detailed and as.

**Brian Pugh** 50:00

As verbose, yeah, complicated, yeah, complicated.

**Ashley Biggs** 50:03



That's a better word complicated as brain injury. The language, you know, can get really difficult, right? But I really have to commend the Brain Injury Association of Maryland for making it an accessible language. And we're constantly

**Brian Pugh 50:17**

working on that, because we constantly recognize that there are lots of, you know, brain injury creates visual issues, brain injury creates auditory issues, brain injury creates confusion. So we reckon, you know, we're always trying to get the maximum amount of information on but we're also trying to work on the wording. We're trying to reduce the wording create pictures. And so it's not, it's never we're never done. We're always trying to make it, make it better and more accessible. So I really appreciate the comment, because we do spend a lot of time trying to make sure that, you know, in this huge pan of play, this huge umbrella of issues, that we can speak to some we can, you know, bring information in some component about it. So [www, dot, B, I, a, m, d.org](http://www.bilam.d.org), is the website if you're interested in getting the newsletter, which now goes out to almost 10,000 folks. Oh, wow. So it's called Five thoughts Friday. It goes out every Friday at nine o'clock, and we get three stories, typically on brain injury, brain injury research, but it can also be Stroke, stroke recovery, mindfulness, you know, different ways of dealing with the challenges of brain injury. We talk about military stuff. We celebrate, we celebrate individuals with brain injuries and their success stories. Then we have a book recommendation, and then with a link to the book if you're interested in getting it. And then we have a quote of the week to send you off on the weekend to, sort of, you know, inspire you to take the day. If you don't have a chance to check it out on Monday, we resend it out on Monday morning so that you can have another opportunity to take a look at it. And it's it was started as a sort of a summer project because I got tired of sending out emails. Please, please send me money. Please join my event. Please come to this thing was just like, nag, nag, nag. So it's like, I wanted to put something else out, so we created this newsletter to go out. And I was kind of, it was a three month test, just because I didn't know if I was going to have enough information. You know, we don't write the stories. We're curating the stories. But, you know, is there going to be enough out there? And I think we're going to hit eight years. We're coming up on eight years of doing this every week. So there's always, always something going on. And again, once you kind of open up your eyes a little bit and start paying attention, brain injury touches everybody, everybody, everybody knows somebody, whether they know it or not, who's had a stroke, who's had a brain injury, who's had brain cancer, who's had an operation? Everybody knows somebody.

**Ashley Biggs 52:43**

So the Brain Injury Association of Maryland, again, the website is B as in boy I as an ice cream, a as an apple. M is in Mary, D as in david.org

**Brian Pugh 52:55**

and is 800-221-6443 Thank you. Yes, 800-221-6443 800-221-6443

**Ashley Biggs 53:03**

That's right. And you know, like I said, guys, the website is very accessible in in the language and the layout. I have not yet looked at your newsletter, but I will definitely sign up for it. All you gotta do is

**Brian Pugh** 53:18

go to the website. There's a button that says five thoughts Friday. You can click on the button and just give us your just give us your first name, last name and email address, and then we'll ship it off on Monday or no, I'm sorry, on Friday at 9am

**Ashley Biggs** 53:29

alright, alright. Well, this has been amazing. Thank you so much for being here and for sharing you know your story for your organization and the and the hard work that you're doing to advocate for people who have brain injuries. Well,

**Brian Pugh** 53:47

thank you so much for the opportunity. I mean, if there's a message to take away from everything that I said, because I know it was kind of a data dump, the reality is, you're not alone. You're not alone. It's a very isolating injury for both the family and the individual, but you're not alone. The Brain Injury Association of Maryland is celebrating its 42nd year right now, and we were created by individuals who are trying to support family members with brain injuries. It's what we do. It's baked into our DNA, and we just want to make sure that people know that they're not alone. They're not alone. They're not going through this alone. They don't need to go through this alone. There is help, there's stuff available, and we're we're there.

**Ashley Biggs** 54:29

I'm glad to hear it, and I look forward to talking to you again sometime in the future. Thanks

**Brian Pugh** 54:35

so much for letting me be here. All right. Well, guys,

**Ashley Biggs** 54:39

you know this is coming out in March, so make sure you share it with friends and family, and don't hesitate to reach back out to us at the library, because we do have books to support brain injury, and for those who have print disabilities related to brain injury, they qualify for service. So make sure that you. You have friends or family that you are sharing our information as well. Well. Brian, thank you so much for being here, and I can't wait to see what's coming up in the future for you.

**Brian Pugh** 55:09

Thank you so much. Look forward to talk to you

**Announcer** 55:13

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