Committee Report

REGULAR CALENDAR

February 9, 2021

HOUSE OF REPRESENTATIVES

REPORT OF COMMITTEE

The Majority of the Committee on Health, Human

Services and Elderly Affairs to which was referred HB

163-FN,

AN ACT relative to cannabis use during pregnancy.

Having considered the same, report the same with the

following amendment, and the recommendation that

the bill OUGHT TO PASS WITH AMENDMENT.

Rep. William Marsh

FOR THE MAJORITY OF THE COMMITTEE

Original: House Clerk

MAJORITY COMMITTEE REPORT

Committee:	Health, Human Services and Elderly Affairs
Bill Number:	HB 163-FN
Title:	relative to cannabis use during pregnancy.
Date:	February 9, 2021
Consent Calendar:	REGULAR
Recommendation:	OUGHT TO PASS WITH AMENDMENT 2021-0238h

STATEMENT OF INTENT

This bill directs the Department of Health and Human Services to create a poster and make information available at dispensaries regarding the use of cannabis while pregnant or lactating, accidental poisoning, and, use during adolescence. This parallels the information currently being made available in Colorado dispensaries. As cannabis has been made available for therapeutic use by the General Court, and not by the FDA, it becomes incumbent upon the General Court to provide consumers with information, just like the FDA provides package inserts for prescription drugs. We know from a June 2019 study in the Journal of the American Medical Association (JAMA) that the rate of pre-term birth among reported cannabis users was 12% vs. 6% in non-users. We also know from a June 2018 study in Obstetrics Gynecology that 69% of dispensaries in Colorado recommend cannabis for first trimester morning sickness. Surgeon General Jerome Adams has expressed concern about subsequent learning disabilities, and about the risk of accidental poisoning, particularly with edibles. The Amendment 2021-0238h clarifies language as recommended by the therapeutic cannabis medical oversight board.

Vote 18-3.

Rep. William Marsh FOR THE MAJORITY

Original: House Clerk

REGULAR CALENDAR

Health, Human Services and Elderly Affairs

HB 163-FN, relative to cannabis use during pregnancy. MAJORITY: OUGHT TO PASS WITH AMENDMENT. MINORITY: INEXPEDIENT TO LEGISLATE.

Rep. William Marsh for the **Majority** of Health, Human Services and Elderly Affairs. This bill directs the Department of Health and Human Services to create a poster and make information available at dispensaries regarding the use of cannabis while pregnant or lactating, accidental poisoning, and, use during adolescence. This parallels the information currently being made available in Colorado dispensaries. As cannabis has been made available for therapeutic use by the General Court, and not by the FDA, it becomes incumbent upon the General Court to provide consumers with information, just like the FDA provides package inserts for prescription drugs. We know from a June 2019 study in the Journal of the American Medical Association (JAMA) that the rate of pre-term birth among reported cannabis users was 12% vs. 6% in non-users. We also know from a June 2018 study in Obstetrics Gynecology that 69% of dispensaries in Colorado recommend cannabis for first trimester morning sickness. Surgeon General Jerome Adams has expressed concern about subsequent learning disabilities, and about the risk of accidental poisoning, particularly with edibles. The Amendment 2021-0238h clarifies language as recommended by the therapeutic cannabis medical oversight board. **Vote 18-3.**

Original: House Clerk

REGULAR CALENDAR

February 9, 2021

HOUSE OF REPRESENTATIVES

REPORT OF COMMITTEE

The Minority of the Committee on Health, Human

Services and Elderly Affairs to which was referred HB

163-FN,

AN ACT relative to cannabis use during pregnancy.

Having considered the same, and being unable to agree

with the Majority, report with the following resolution:

RESOLVED, that it is INEXPEDIENT TO LEGISLATE.

Rep. Leah Cushman

FOR THE MINORITY OF THE COMMITTEE

Original: House Clerk

MINORITY COMMITTEE REPORT

Committee:	Health, Human Services and Elderly Affairs
Bill Number:	HB 163-FN
Title:	relative to cannabis use during pregnancy.
Date:	February 9, 2021
Consent Calendar:	REGULAR
Recommendation:	INEXPEDIENT TO LEGISLATE

STATEMENT OF INTENT

The minority does not support this bill. While it is important for patients to be informed of the benefits and risks of a medication, and in this case, the therapeutic use of cannabis, the responsibility of providing informed consent is already required of medical providers. It is unusual for risk counseling for a specific medication to be mandated by statute. The minority believes the nature of the discussion on cannabis use should be between the prescriber and the patient, and the bill allows government to micro-manage medical practice. Therefore the minority believes this bill should be inexpedient to legislate.

Rep. Leah Cushman FOR THE MINORITY

Original: House Clerk

REGULAR CALENDAR

Health, Human Services and Elderly Affairs

HB 163-FN, relative to cannabis use during pregnancy. INEXPEDIENT TO LEGISLATE. Rep. Leah Cushman for the Minority of Health, Human Services and Elderly Affairs. The minority does not support this bill. While it is important for patients to be informed of the benefits and risks of a medication, and in this case, the therapeutic use of cannabis, the responsibility of providing informed consent is already required of medical providers. It is unusual for risk counseling for a specific medication to be mandated by statute. The minority believes the nature of the discussion on cannabis use should be between the prescriber and the patient, and the bill allows government to micro-manage medical practice. Therefore the minority believes this bill should be inexpedient to legislate.

Original: House Clerk

Rep. Knirk, Carr. 3 Rep. Marsh, Carr. 8 February 8, 2021 2021-0238h 08/05

Amendment to HB 163-FN

1 Amend the bill by replacing sections 3-4 with the following:

- 3 New Paragraph; Use of Cannabis for Therapeutic Purposes; Departmental Rules. Amend RSA 126-X:6 by inserting after paragraph V the following new paragraph:
- VI. The department shall adopt rules, pursuant to RSA 541-A, to document that counseling has been provided by the certifying provider to all women of child-bearing age and adolescents 25 years of age or less, and the parent or guardian of a patient less than age 18, about the risks of cannabis use in adolescence, during pregnancy, and while breastfeeding, prior to issuing or reissuing a therapeutic cannabis card to such individuals.
- 4 New Subparagraphs; Use of Cannabis for Therapeutic Purposes; Alternative Treatment Centers; Requirements. Amend RSA 126-X:8, XVI(c) by inserting after subparagraph (6) the following new subparagraphs:
- (7) Information about the risks of cannabis use during pregnancy and while breastfeeding, as outlined by the therapeutic cannabis medical oversight board. Such information shall include the posting of an informational poster regarding the risks of cannabis use during pregnancy and while breastfeeding in a conspicuous location at the alternative treatment center's dispensary location.
- (8) Information regarding safe storage and disposal of cannabis and paraphernalia to prevent accidental poisonings, including the contact information for the Northern New England Poison Control Center.
- (9) Information about the risks of cannabis use in adolescence as outlined by the therapeutic cannabis medical oversight board. Such information shall include the posting of an informational poster on the risks of cannabis use in adolescence in a conspicuous location at the alternative treatment center's dispensary location.

Voting Sheets

HOUSE COMMITTEE ON HEALTH, HUMAN SERVICES AND ELDERLY AFFAIRS EXECUTIVE SESSION on HB 163-FN

BILL TITLE: relative to cannabis use during pregnancy.

DATE: February 8, 2021

LOB ROOM: 306/308

MOTIONS: OUGHT TO PASS WITH AMENDMENT

Moved by Rep. Marsh Seconded by Rep. Weber AM Vote: 21-0

Amendment # 2021-0238h

Moved by Rep. Marsh Seconded by Rep. Schapiro Vote: 18-3

CONSENT CALENDAR: NO

Statement of Intent: Refer to Committee Report

Respectfully submitted,

Rep Beth Folsom, Clerk



1/22/2021 10:06:45 AM Roll Call Committee Registers Report

2021 SESSION

Bill #: HB	: OTPA	AM #:	0238H	Exec Session Date:	
		_			

<u>Members</u>	YEAS	<u>Nays</u>	<u>NV</u>
Pearson, Mark A. Chairman	21		
Marsh, William M. Vice Chairman	1		
McMahon, Charles E.	2		
Nelson, Bill G.	3		
Acton, Dennis F.	4		
Gay, Betty I.	5		
Cushman, Leah P.	6		
Folsom, Beth A. Clerk	7		
Kelsey, Niki	8		
King, Bill C.	9		
Kofalt, Jim	10		
Weber, Lucy M.	11		
MacKay, James R.	12		
Snow, Kendall A.	13		
Knirk, Jerry L.	14		
Salloway, Jeffrey C.	15		
Cannon, Gerri D.	16		
Nutter-Upham, Frances E.	17		
Schapiro, Joe	18		
Woods, Gary L.	19		



1/22/2021 10:06:45 AM Roll Call Committee Registers Report

2021 SESSION

Bill #: HB 163	Motion:	OTPA	AM #:	0238H	Exec Session Date:			
Merchant, Gary					20			
TOTAL VOTE:				П	21	0		0



1/22/2021 10:06:45 AM Roll Call Committee Registers Report

2021 SESSION

Bill #: HB 163	Motion:	OTPA	AM #:	0238h	Exec Session Date:	

<u>Members</u>	<u>YEAS</u>	<u>Nays</u>	NV
Pearson, Mark A. Chairman	18		
Marsh, William M. Vice Chairman	1		
McMahon, Charles E.	2		
Nelson, Bill G.		1	
Acton, Dennis F.	3		
Gay, Betty I.	4		
Cushman, Leah P.	_	2	
Folsom, Beth A. Clerk	5		
Kelsey, Niki	6		
King, Bill C.	7		
Kofalt, Jim		3	
Weber, Lucy M.	8		
MacKay, James R.	9		
Snow, Kendall A.	10		
Knirk, Jerry L.	11		
Salloway, Jeffrey C.	12		
Cannon, Gerri D.	13		
Nutter-Upham, Frances E.	14		
Schapiro, Joe	15		
Woods, Gary L.	16		



1/22/2021 10:06:45 AM Roll Call Committee Registers Report

2021 SESSION

Bill #: HB 163	Motion:	OTPA	AM #:	0238h	Exec Session Date:			
Merchant, Gary					17			
TOTAL VOTE:					18	3		0

Rep. Knirk, Carr. 3 Rep. Marsh, Carr. 8 February 8, 2021 2021-0238h 08/05

Amendment to HB 163-FN

Amend the bill by replacing sections 3-4 with the following:

- 3 New Paragraph; Use of Cannabis for Therapeutic Purposes; Departmental Rules. Amend RSA 126-X:6 by inserting after paragraph V the following new paragraph:
- VI. The department shall adopt rules, pursuant to RSA 541-A, to document that counseling has been provided by the certifying provider to all women of child-bearing age and adolescents 25 years of age or less, and the parent or guardian of a patient less than age 18, about the risks of cannabis use in adolescence, during pregnancy, and while breastfeeding, prior to issuing or reissuing a therapeutic cannabis card to such individuals.
- 4 New Subparagraphs; Use of Cannabis for Therapeutic Purposes; Alternative Treatment Centers; Requirements. Amend RSA 126-X:8, XVI(c) by inserting after subparagraph (6) the following new subparagraphs:
- (7) Information about the risks of cannabis use during pregnancy and while breastfeeding, as outlined by the therapeutic cannabis medical oversight board. Such information shall include the posting of an informational poster regarding the risks of cannabis use during pregnancy and while breastfeeding in a conspicuous location at the alternative treatment center's dispensary location.
- (8) Information regarding safe storage and disposal of cannabis and paraphernalia to prevent accidental poisonings, including the contact information for the Northern New England Poison Control Center.
- (9) Information about the risks of cannabis use in adolescence as outlined by the therapeutic cannabis medical oversight board. Such information shall include the posting of an informational poster on the risks of cannabis use in adolescence in a conspicuous location at the alternative treatment center's dispensary location.

Hearing Minutes

HOUSE COMMITTEE ON HEALTH, HUMAN SERVICES AND ELDERLY AFFAIRS

PUBLIC HEARING on Bill # HB 163-FN

BILL TITLE: An Act relevant to cannabis use during pregnancy.

DATE: 2/2/2021

ROOM: 206/8 Time Public Hearing Called to Order: 11:30 am

Time Adjourned: 12:06 pm

Committee Members Present:

Remote from home:

Reps. M. Pearson, Marsh, McMahon, Nelson, Acton, Gay, Cushman, Folsom, Kelsey, King, Kofalt, Weber, MacKay, Snow, Knirk, Salloway, Cannon, Nutter-Upham, Schapiro, Woods, Merchant

TESTIMONY

* Use asterisk if written testimony and/or amendments are submitted.

Representative Marsh

- Increase in pre-term births
- Increase in # of pregnant women using cannabis
- Using cannabis during lactation
- Adds counseling to youth
- The work on this project has already begun
- · Approach piece meal or bundle an issue with timing
- Communicating to public
- Labeling
- Co-ordinate with Commerce committee
- Therapeutic Cannabis Oversight Board voted 9-0 to approve this
- Low & Slow
- ATC staff qualified to counsel Move counseling and educational info to prescribing provider?
- Warning risk in adolescence educational slide deck
- CBD vs THC
- Data is in its infancy

Michael Holt, DHHS Therapeutic Cannabis Program

- no position of bill
- don't lock in specific risks as science is evolving
- 1200 providers who have at least one certified current patients
- Already have brochures, this would add a poster

Kate Frey, New Futures

- Support, Governor's council, \$ set aside, be proactive
- Homegrown no out reach at this point

Respectfully submitted,

Rep. Beth Folsom, Clerk

2/4/2021 House Remote Testify

House Remote Testify

Health, Human Services and Elderly Affairs Committee Testify List for Bill HB163 on 2021-02-02

Support: 9 Oppose: 4 Neutral: 1 Total to Testify: 4

<u>Name</u>	Email Address	Phone	<u>Title</u>	Representing	Position	Testifying	Signed Up
Rung, Rosemarie	rosemarie.rung@leg.state.nh.us	603.424.6664	An Elected Official	Myself	Support	Yes (5m)	2/1/2021 8:16 PM
Knirk, Jerry	jknirk@roadrunner.com	617.448.7557	An Elected Official	Therapeutic Cannabis Medical Oversight Bill	Support	Yes (3m)	2/1/2021 1:24 PM
Frey, Kate	kfrey@new-futures.org	603.340.0246	A Lobbyist	Myself	Support	Yes (3m)	2/2/2021 9:07 AM
Holt, Michael	michael.holt@dhhs.nh.gov	2719234	State Agency Staff	DHHS/TCP	Neutral	Yes (2m)	2/2/2021 9:05 AM
Sylvia, Mike	mike.sylvia@leg.state.nh.us	603.707.8594	An Elected Official	Belknap 6	Oppose	No	2/2/2021 9:14 AM
hayhurst, tami	thayhurst@lrmhc.org	978.376.8702	A Member of the Public	Myself	Oppose	No	2/1/2021 1:46 PM
Padmore, Michael	michael.padmore@nhms.org	603.858.4744	A Lobbyist	NH Medical Society	Support	No	2/1/2021 6:31 PM
Rathbun, Eric	ericsrathbun@gmail.com	860.912.3751	A Member of the Public	Myself	Support	No	2/1/2021 10:28 PM
Weisbrot, Jason	hideouspenguinboy@gmail.com	857.544.5443	A Member of the Public	Myself	Oppose	No	2/2/2021 9:00 AM
Crawford, Karel	Karel.crawford@leg.state.nh.us	603.677.2911	An Elected Official	Myself	Support	No	1/27/2021 2:07 PM
Deshaies, Brodie	BrodieforNH@gmail.com	603.387.4210	An Elected Official	Carroll 6, Wolfeboro	Support	No	1/31/2021 6:22 PM
Jones, Jennifer	jennjones123@hotmail.com	603.327.4087	A Member of the Public	Myself	Support	No	1/31/2021 7:05 PM
Gould, Rep. Linda	lgouldr@myfairpoint.net	603.472.3877	An Elected Official	Myself	Support	No	2/1/2021 9:27 AM
Burns, Christopher	cburns24@gmail.com	917.548.5467	A Member of the Public	Myself and the patients I treat	Oppose	No	2/1/2021 9:50 AM

intra01/house/houseRemoteComMgt/

Testimony





- Data from recreational cannabis users, therapeutic use literature emerging
- More vulnerable population
 - Brain development not completed until mid-20's
 - Increased risk of **short-term** and long-term side effects (Volkow, 2014, Arseneault, 2002):
 - Impaired short-term memory, attention, and problem-solving may impact learning
 - Alterations in coordination, reaction time, judgement may contribute to unintentional injuries and deaths
 - Negative health effects on lung function with smoking

- Increased risk of short-term and **long-term** side effects (Volkow, 2014; Arseneault, 2002):
 - Long-term use in adolescence correlated with cognitive deficits extending to adulthood
 - Use in adolescence may increase risk of depression and suicidality
 - Use in adolescence is associated with an increased risk of developing schizophrenia symptoms, even after controlling for psychotic symptoms preceding the onset of cannabis use
 - Early cannabis use (by age 15) confers greater risk for psychosis/schizophrenia and poor cognitive outcomes than later cannabis use (by age 18)
 - Cognitive impairments may persist even after discontinuation of cannabis, especially in the setting of early cannabis use
- Risk of dependence/addiction increases with earlier onset of use (Winters, 2008)

Certifying Children and Adolescents For the Therapeutic Cannabis Program

- Due to the risks of cannabis use in children, increased requirements for certification of any patient under age 18
 - Parent or legal guardian must be designated caregiver
 - Written certifications from 2 providers one must be a pediatrician



Bibliography

- Gobbi G, Atkin T, Zytynski T, et al. Association of Cannabis Use in Adolescence and Risk of Depression, Anxiety, and Suicidality in Young Adulthood: A Systematic Review and Meta-analysis. *JAMA Psychiatry*. 2019;76(4):426–434. doi:10.1001/jamapsychiatry.2018.4500
- Arseneault L, Cannon M, Poulton R, Murray R, Caspi A, Moffitt TE et al. Cannabis use in adolescence and risk for adult psychosis: longitudinal prospective study BMJ 2002; 325: 1212 doi: 10.1136/bmj.325.7374.1212
- Scheier L, Kenneth W Griffin K. Youth marijuana use: a review of causes and consequences. Current Opinion in Psychology 2021; 38, 11-18. doi.org/10.1016.j.copsyc.2020.06.007
- Volkow N, Baler R, Compton W, Weiss S. Adverse Health Effects of Marijuana Use. N Engl J Med 2014; 370:2219-27. DOI: 10.1056/NEJMra1402309
- Winters K,. Lee C. Likelihood of developing an alcohol and cannabis use disorder during youth: Association with recent use and age. Drug and Alcohol Dependence, Volume 92, 2008:1–3, 239-247, ISSN 0376-8716, doi.org/10.1016/j.drugalcdep.2007.08.005.

HB 163 testimony Rep Jerry Knirk, Chair, Therapeutic Cannabis Medical Oversight Board (TCMOB) Feb 2, 2021

The TCMOB has not had the chance to review this particular bill. It is on our agenda for Feb 3, 2021. We did review the 2020 version of the bill, HB 1591, which addressed pregnancy and lactation, but did not include the new section regarding adolescents. TCMOB supported the bill 9-1 with an initial recommendation to add a requirement for counseling by both the ATC and the certifying provider for all women of childbearing age about the risk of cannabis use during pregnancy and lactation. TCMOB revisited HB 1591 in our Feb 2020 meeting and expressed concerns about ATC staff qualifications to provide such counseling and difficulties with gender determination and profiling of women of childbearing age. We realized that asking the ATC to provide counseling about risks of cannabis in women of childbearing age would hold therapeutic cannabis to a higher standard than we do with other drugs in the pharmacy. TCMOB felt that counseling belongs in the certifying provider's office.

One of the main goals of the TCMOB in 2020 was to develop educational materials. TCMOB has already developed educational sheets regarding the risks of cannabis use during pregnancy and lactation for providers and for patients and is ready to proceed with implementation of these educational initiatives. These information sheets are attached to the email with this testimony.

Representative Marsh included a requirement for counseling in the new bill, placing the burden of counseling on the certifying provider. TCMOB has not reviewed this particular language.

The new bill also has a requirement for warnings of the risks of cannabis in adolescents. Though we have not had a chance to discuss that particular requirement in this bill, we have discussed and recognize the risks of cannabis use in adolescents and have already developed educational slides for providers regarding these risks. An educational slide deck has been attached to the email containing this testimony. I would expect that TCMOB will support this new section of the bill and will develop the educational materials for the risks of cannabis use in adolescents.

It is important to understand that the peak ages for certified patients is ages 50-60. For a 2021 Senate bill we have just interrogated the database regarding the number of certified patients less than age 21. There are only 10 minors (under 18) and 66 patients between ages 18 through 20, out of 10,688 total qualifying patients.

Dear Committee Members.

I am writing to express my concerns about HB 602. For so many healthcare providers around the state, telehealth has been the only way to safely deliver services during our ongoing COVID pandemic. Please don't move ahead with this bill, which risks making it harder for individuals and families to access services at a time when they are desperately needed by cutting reimbursements to providers.

As a staff member for a family centered early supports and services (FCESS) provider in the Monadnock Region, I see daily the need for these services and the challenges that come with funding them. As the parent of a college student struggling with anxiety as a result of COVID restrictions, I see the urgent need for mental health supports and know telehealth is the only way she, like so many others, can access them.

The organization I work for, Rise for baby and family, serves children birth to age three years with developmental delays and disabilities. Rise serves hundreds of families in the Monadnock Region each year, providing specialized care from speech, physical, and occupational therapists to children in need. As a non-profit organization, Rise relies on private insurance and Medicaid billing for funding.

While these services have traditionally been provided in the home or a childcare setting, they have transitioned to telehealth services via video or phone due to the pandemic. (Some families do not have the internet access needed for a video visit.) Given that each provider works with up to seven children and families per day, it would neither be feasible nor safe to go into multiple homes and childcare settings each day while coronavirus continues to be such a risk.

All Rise services are provided at no cost to the family, ensuring all children who need these early supports and services have access to them. To do this, we rely on reimbursement from both Medicaid and private insurers, with fundraising efforts to cover gaps between the cost of services and the reimbursement we receive. If that reimbursement were cut because insurers no longer had to provide coverage for telehealth visits, it would be incredibly difficult for Rise to continue to provide the comprehensive services it now does.

For the sake of all the individuals and families around our state who are currently depending on telehealth services, I urge you to oppose HB 602.

Sincerely, Patricia Payne Hancock, NH



advocate • educate • collaborate to improve the health and wellness of all Granite Staters

February 2, 2021

The Honorable Mark Pearson, Chair House Health, Human Services and Elderly Affairs Committee Legislative Office Building Room 205 Concord, NH 03301

Re: New Futures Support of HB 163, relative to cannabis use during pregnancy

Dear Chair Pearson and Members of the Committee:

New Futures is a nonpartisan, nonprofit organization that advocates, educates and collaborates to improve the health and wellness of all New Hampshire residents through policy change. In this role, we work extensively with policy makers, stakeholders, and prevention partners to prevent and reduce alcohol and other drug problems in our state.

According to a 2019 report in the Journal of American Medical Association (JAMA), the proportion of U.S. women using cannabis during pregnancy more than doubled between 2002 and 2017. Use during pregnancy can be harmful to a baby's health and cause many serious problems, including stillbirth, preterm birth, and growth and development issues.

New Futures supports HB 163 because it would require Alternative Treatment Centers(ATCs) to provide information regarding the risk of cannabis use during pregnancy. New Futures along with prevention partners created educational documents for the Therapeutic Cannabis program and the Alternative Treatment Centers in 2016. These documents highlight tips for safe and responsible use, child safety, and preventing youth use. This was a collaborative effort with the ATCs, the Department of Health and Human Services and prevention experts.

While these documents were made available to ATCs, it was not always clear whether they were being distributed to clients. Mandating these efforts this through legislation will ensure consistency in providing valuable prevention information. New Futures also would recommend that these documents are mailed to clients when they receive their therapeutic cannabis identification card.

New Futures urges the committee to vote Ought to Pass on HB 163.

Sincerely,

Kathryn (Kate) Frey Vice President of Advocacy

Kootun Trey





- Data from recreational cannabis users, therapeutic use literature emerging
- More vulnerable population
 - Brain development not completed until mid-20's
 - Increased risk of short-term and long-term side effects (Volkow, 2014, Arseneault, 2002):
 - Impaired short-term memory, attention, and problem-solving may impact learning
 - Alterations in coordination, reaction time, judgement may contribute to unintentional injuries and deaths
 - Negative health effects on lung function with smoking

- Increased risk of short-term and long-term side effects (Volkow, 2014; Arseneault, 2002):
 - Long-term use in adolescence correlated with cognitive deficits extending to adulthood
 - Use in adolescence may increase risk of depression and suicidality
 - Use in adolescence is associated with an increased risk of developing schizophrenia symptoms, even after controlling for psychotic symptoms preceding the onset of cannabis use
 - Early cannabis use (by age 15) confers greater risk for psychosis/schizophrenia and poor cognitive outcomes than later cannabis use (by age 18)
 - Cognitive impairments may persist even after discontinuation of cannabis, especially in the setting of early cannabis use
- Risk of dependence/addiction increases with earlier onset of use (Winters, 2008)

Certifying Children and Adolescents For the Therapeutic Cannabis Program

- Due to the risks of cannabis use in children, increased requirements for certification of any patient under age 18
 - Parent or legal guardian must be designated caregiver
 - Written certifications from 2 providers one must be a pediatrician



Bibliography

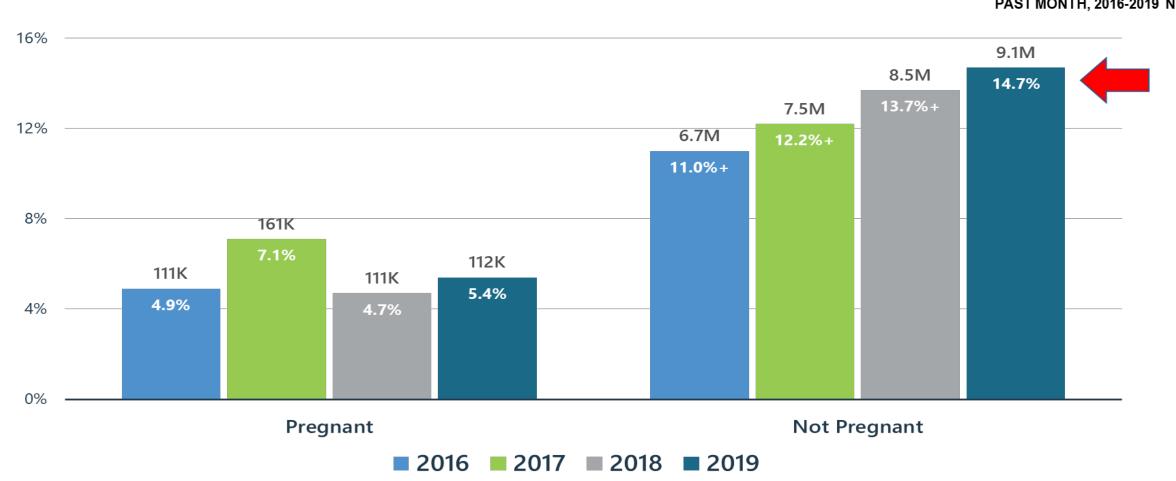
- •Gobbi G, Atkin T, Zytynski T, et al. Association of Cannabis Use in Adolescence and Risk of Depression, Anxiety, and Suicidality in Young Adulthood: A Systematic Review and Meta-analysis. *JAMA Psychiatry*. 2019;76(4):426–434. doi:10.1001/jamapsychiatry.2018.4500
- •Arseneault L, Cannon M, Poulton R, Murray R, Caspi A, Moffitt TE et al. Cannabis use in adolescence and risk for adult psychosis: longitudinal prospective study BMJ 2002; 325: 1212 doi: 10.1136/bmj.325.7374.1212
- •Scheier L, Kenneth W Griffin K. Youth marijuana use: a review of causes and consequences. Current Opinion in Psychology 2021; 38, 11-18. doi.org/10.1016.j.copsyc.2020.06.007
- •Volkow N, Baler R, Compton W, Weiss S. Adverse Health Effects of Marijuana Use. N Engl J Med 2014; 370:2219-27. DOI: 10.1056/NEJMra1402309
- •Winters K,. Lee C. Likelihood of developing an alcohol and cannabis use disorder during youth: Association with recent use and age. Drug and Alcohol Dependence, Volume 92, 2008:1–3, 239-247, ISSN 0376-8716, doi.org/10.1016/j.drugalcdep. 2007.08.005.



Cannabis in Pregnancy and Breastfeeding

Women and Cannabis

- Online survey: >2300 cannabis users (male and female) both recreational (70%) and medical (59%) reported both (32.2%)
 - Women: (1004 of above)
 - Less frequent and lower quantities than men
 - Pipes and oral administration
 - Describe loss of appetite and desire to clean with high
 - Report nausea and anxiety as withdrawal symptoms
- Substance use in women is increasing
 - Possible shorter latency to use disorders after onset of drug use



Marijuana Use by Women by Pregnancy Status



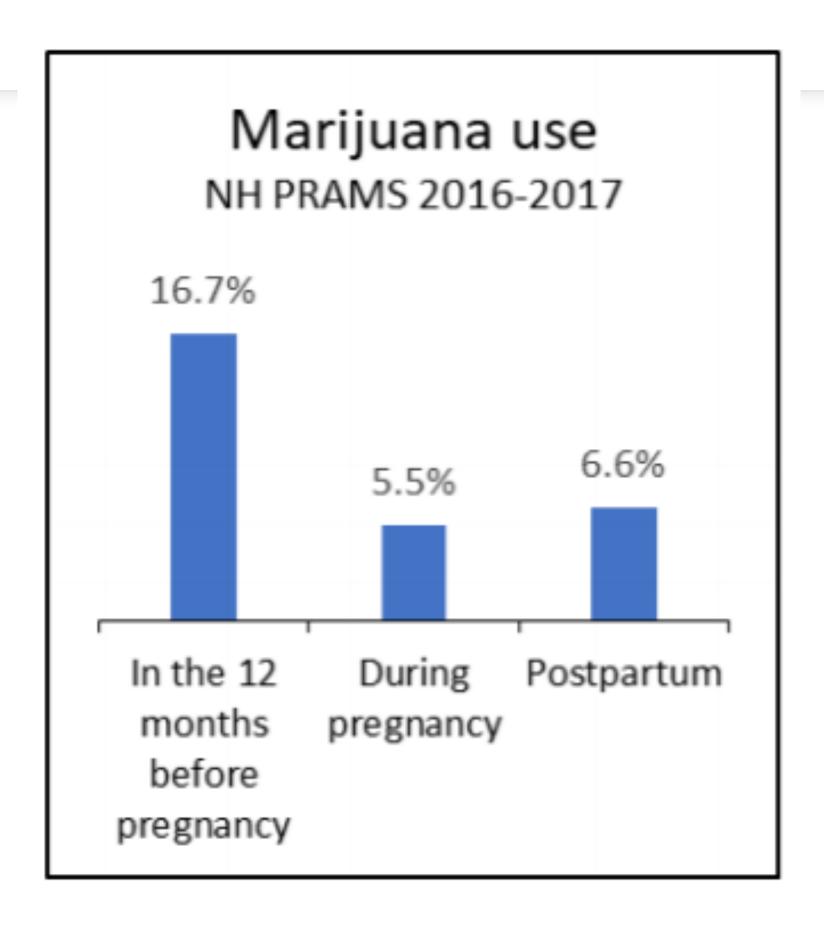
+ Difference between this estimate and the 2019 estimate is statistically significant at the .05 level.

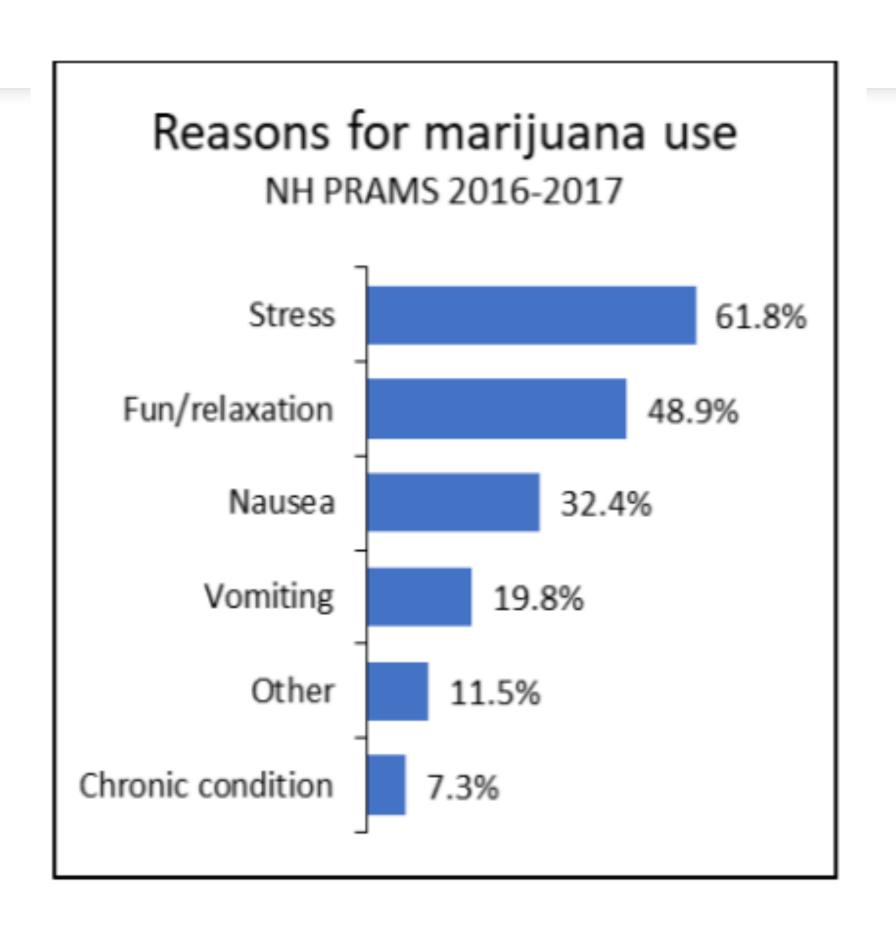
Cuttler C, Mischley LK, Sexton M. Sex Differences in Cannabis Use and Effects: A Cross-Sectional Survey of Cannabis Users. Cannabis Cannabinoid Res. 2016 Jul 1;1(1):166-175.

Cannabis in Pregnancy

- Data from recreational cannabis users, therapeutic use literature emerging
- Use Patterns
 - Cannabis = most commonly used "illicit" drug during pregnancy
 - 10.9% self-reported use during past year (Ko, 2015)
 - 18.1% pregnant past-year users met criteria for cannabis use disorder
 - Highest prevalence 18 25 yo women
- Increasing rates of use
 - More accessible and acceptable, perceived as "natural and safe"
 - Report use to manage mood, stress, morning sickness
 - On-line advertising may recommend cannabis for nausea (Chang, 2019)
 - 96% of users during pregnancy were prior users: educational and prevention efforts should begin prior to pregnancy

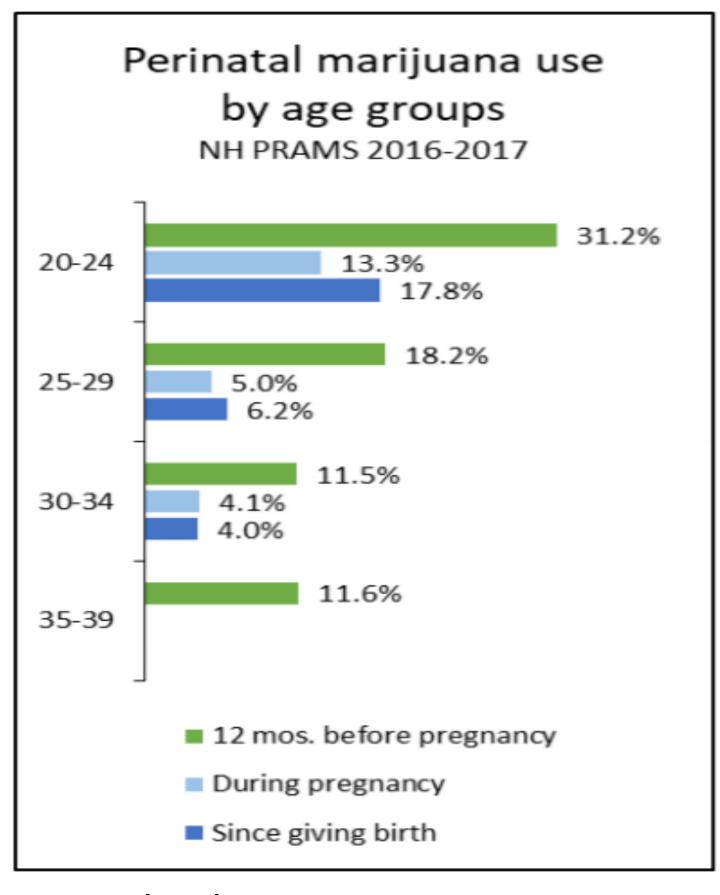
Cannabis in Pregnancy: NH

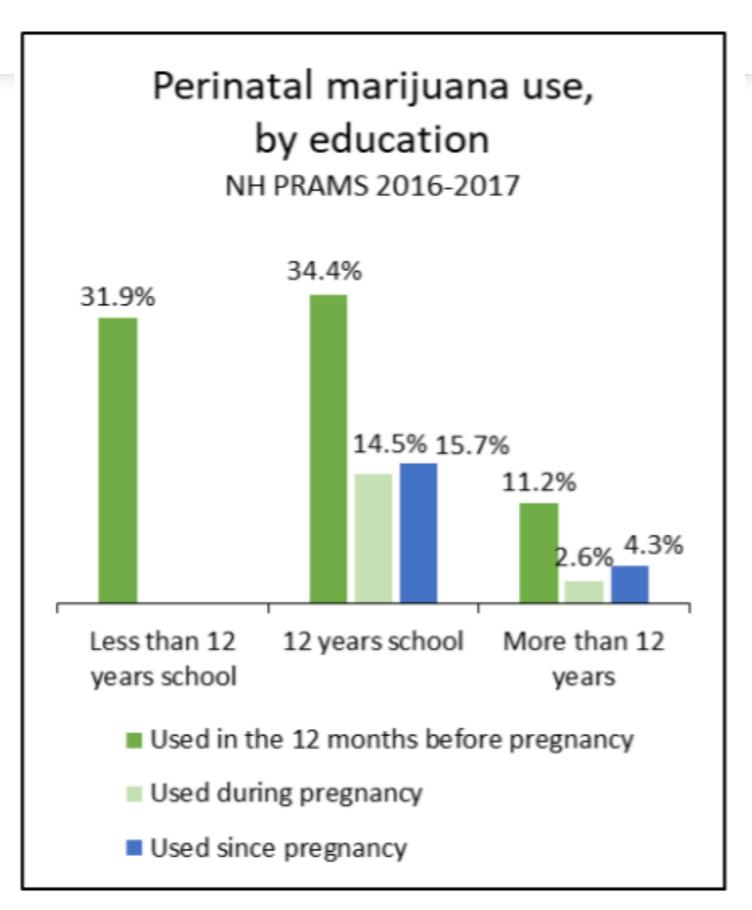


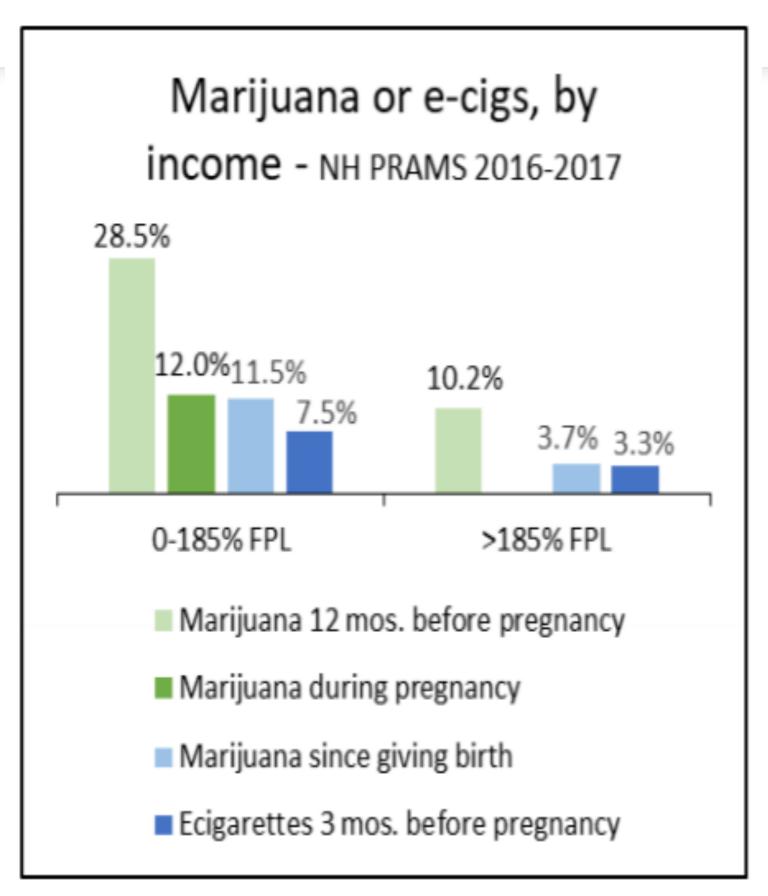


Perinatal Substance Use in New Hampshire Women, 2013-2017; Maternal and Child Health Section, Division of Public Health Services, New Hampshire Department of Health and Human Services; December 2018.

Cannabis in Pregnancy: NH







Perinatal Substance Use in New Hampshire Women, 2013-2017; Maternal and Child Health Section, Division of Public Health Services, New Hampshire Department of Health and Human Services; December 2018.

Cannabis in Pregnancy Parental Effects

- Difficult to isolate potential cannabis effects from confounders, potency = another variable
- Potential Pregnancy Related Outcomes
 - Anemia
 - May precipitate labor (Gunn 2016)
 - Possible exacerbation of nausea/emesis (cannabis hyperemesis syndrome, Kim, 2018)
- Pre-conception Use in Men (Murphy, 2018)
 - Linked to lower sperm counts
 - Epigenetic changes (methylation of DNA), unclear if this may be heritable

Cannabis in Pregnancy Effects on Baby

- During gestation THC reaches a baby via placenta
 - Highly lipophilic, distributes rapidly to brain and fat of fetus
- Potential Harm to Baby including possible
 - Increased risk of stillbirth, low birth weight and preterm birth (Gunn, 2016)
 - Adverse effects on neurodevelopment, including long-term cognitive changes and impairment of executive function (Metz, 2015)
 - Adverse effects on mental health including increased psychotic-like episodes and internalizing and externalizing attention, thought and social problems (Paul, 2020)
 - Prenatal exposure may predict use in young adulthood (Sonon, 2015)
- Possible legal consequences
 - Illegal federally >>> states may be required to report per Child Abuse and Prevention Treatment Act
 - NH laws: Plan of Safe Care (POSC), referral to Child Protective Services only if neglect/abuse

Cannabis in Breastfeeding

- After delivery THC reaches a baby via
 - Breastmilk
 - THC stored in fat cells, slowly released over weeks
 - THC detected in breast milk 6 days after single use, 4 6 weeks after daily use (Bertrand, 2018)
 - "Pumping and Dumping" does not work (Garry, 2009)
 - Lungs via second-hand smoke (Herrmann, 2015)
- Potential Harm to Baby including possible
 - Increased risk for respiratory infections, bronchitis and asthma in infants and children when exposed to second-hand smoke (Allen, 2016)
 - Adverse effects on neurodevelopment, including long-term cognitive changes and impairment of executive function (Metz 2015)
 - Adverse effects on mental health including increased emotional dysregulation and risk for affective disorders (anxiety and depression) and attention deficit hyperactivity disorder (Paul, 2020)

There Is No Known Safe Amount of Cannabis During Pregnancy or Breastfeeding

The American College of Obstetricians and Gynecologists (ACOG) and the American Academy of Pediatrics (AAP) recommend:

- Women using recreational cannabis should discontinue use
- Women using therapeutic cannabis should discontinue use in favor of an alternative treatment which research shows is safer during pregnancy
- Women should not breathe cannabis smoke if pregnant (lower oxygen levels, potential toxins)



Marijuana Fact Sheet

What You Need to Know About Marijuana Use and Pregnancy

Marijuana use during pregnancy can be harmful to your baby's health. The chemicals in marijuana (in particular, tetrahydrocannabinol or THC) pass through your system to your baby and can harm your baby's development 1-7

Although more research is needed to better understand how marijuana may affect you and your baby during pregnancy, it is recommended that pregnant women do not use marijuana.¹⁷

What are the potential health effects of using marijuana during my pregnancy?

- Some research shows that using marijuana while you are pregnant can cause health problems in newborns—including low birth weight.^{10,11}
- Breathing marijuana smoke can also be bad for you and your baby.
 Marijuana smoke has many of the same chemicals as tobacco smoke and may increase the chances for developmental problems in your baby.^{12,13}

Can using marijuana during my pregnancy negatively impact my baby after birth?

- Some research shows marijuana use during pregnancy may make it hard for your child to pay attention or to learn; these issues may only become noticeable as your child grows older.¹⁻⁷
- Separate from the direct, chemical effects of marijuana on a baby, use of marijuana may affect a mother's ability to be able to properly care for her baby.

Does using marijuana affect breastfeeding?

- Chemicals from marijuana can be passed to your baby through breast milk. THC is stored in fat and is slowly released over time, meaning your baby could still be exposed even after you stop using marijuana.
- However, data on the effects of marijuana exposure to your baby through breastfeeding are limited and conflicting. To limit potential risk to the infant, breastfeeding mothers should avoid marijuana use.^{11, 14-16}

Fast Facts

- Using marijuana during pregnancy may impact your baby's development.¹⁻⁷
- About 1 in 20 women in the United States reports using marijuana while pregnant.⁸



- The chemicals in any form of marijuana may be bad for your baby – this includes eating or drinking, creams or lotions applied to skin, smoking, vaping and dabbing.⁹
- If you're using marijuana and are pregnant or are planning to become pregnant, talk to your doctor.



Resources

- CDC https://www.cdc.gov/marijuana/pdf/Marijuana-pregnancy-H.pdf
- AAP https://www.healthychildren.org/English/ages-stages/prenatal/Pages/Marijuana-Use-During-Pregnancy-Breastfeeding.aspx
- ACOG https://www.acog.org/womens-health/infographics/marijuana-and-pregnancy
- California Cannabis Health Information Initiative (patient and provider)
- HealthVermont.gov
- New Hampshire DHHS coming soon!



NATIONAL CENTER FOI N AND HEALTH PROMOTION



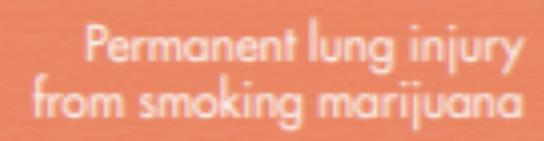
Possible Effects on Your Fetus



Possible Effects on You



Disruption of brain development before birth







Smaller size at birth Higher risk of stillbirth Dizziness, putting you at risk of falls





Higher chance of being born too early, especially when a woman uses both marijuana and cigarettes during pregnancy

Impaired judgment, putting you at risk of injury





Harm from secondhand marijuana smoke Behavioral problems in childhood and trouble paying attention in school

Lower levels of oxygen in the body, which can lead to breathing problems



Bibliography

- Brown QL, Sarvet AL, Shmulewitz D, Martins SS, Wall MM, Hasin DS. Trends in Marijuana Use Among Pregnant and Nonpregnant Reproductive-Aged Women, 2002-2014. JAMA. 2017; 317(2):207-209.
- Ko JY, Farr SL, Tong VT, Creanga AA, Callaghan WM. Prevalence and patterns of marijuana use among pregnant and nonpregnant women of reproductive age. Am J Obstet Gynecol. 2015; 213(2)201e1-201e.10.doi: 10.1016/jajog.2015.03.021
- Chang JC, Tarr, JA, Holland, CL, et al. Beliefs and attitudes regarding prenatal marijuana use: perspectives of pregnant women who report use. Drug Alcohol Depen. 2019; 196:14 20. doi:10.1016/j.drugalcdep.2018.11.028
- Gunn, JK, Rosales BC, Center KE, et al. Prenatal exposure to cannabis and maternal and child health outcomes: a systematic review and meta-analysis. BMJ open. 2016;6(4):e009986
- Metz TD, Stickrath EH. Marijuana Use in Pregnancy and Lactation: A Review of the Evidence. American Journal
 of Obstetrics and Gynecology. 2015; 761-778. doi:10.1016/jajog.2015.05.025
- Paul SE, Hatoum AS, Fine JD, et al. Associations Between Prenatal Cannabis Exposure and Childhood Outcomes: Results from the ABCD Study. JAMA Psychiatry. Published online September 23, 2020. doi:10.1001/jamapsychiatry.2020.2902
- Murphy SK, et al. Cannabinoid exposure and altered DNA methylation in rats and human sperm. Epigenetics. 2018; 13(12):1208-21. doi:10.1080/15592294.2018.1554521
- Bertrand KA, Hanan NJ, Honerkamp-Smith G, Best BM, Chambers CD. Marijuana Use by Bresatfeeding Mothers and Cannabinoid Concentrations in Breast Milk. Pediatrics. 2018;142(3).
- Kim HG, Moon J, Dixon H, Tullar P. Recurrent Nausea and Vomiting in a Pregnant Woman with Chronic Marijuana Use. Case reports in obstetrics and gynecology. 2018;2019:9746062



Pregnant and Breastfeeding Women and Cannabis

Using cannabis (marijuana, weed, pot, etc.) can affect the health of your baby and is not recommended for women who are pregnant or breastfeeding, or who plan to become pregnant soon.

Here are some important facts you should know.

Cannabis Can Harm Your Baby

Using cannabis during pregnancy or while breastfeeding may harm your baby. Cannabis that passes to your baby during pregnancy or breast feeding may make it harder for your child to pay attention or learn, especially as your child grows older. This may make it harder for your child to do well in school. Your child may also be at higher risk for mental health problems later in life.

If you use cannabis while pregnant, your baby may be born with a lower birth weight. A low birth weight baby is more likely to have health problems, especially in the first year of life.

If you smoke cannabis your baby will have more risk for respiratory illnesses including asthma, bronchitis and pneumonia.

How Cannabis Affects Your Baby

No matter how you use cannabis (smoking, vaping, eating, or drinking), the active ingredient, THC (tetrahydrocannabinol), will reach your baby in three ways:

- Blood stream and into the placenta (which feeds your baby during pregnancy)
- Breast milk
- Secondhand smoke that enters your baby's lungs

Because THC is stored in fat, it stays in the body for a long time. A baby's brain and body are made with a lot of fat, so the THC will stay stored in the baby and may cause damage. "Pumping and Dumping" doesn't work because THC is stored in fat cells and is slowly released overs several weeks, so it stays in your breast milk.

New science suggests that men who use cannabis before a women gets pregnant can cause changes in sperm DNA which may affect the baby's health and development.

There Is No Known Safe Amount of Cannabis during Pregnancy or Breastfeeding

Leading health care experts such as the American College of Obstetricians and Gynecologists and the American Academy of Pediatrics recommend that:

- If you are pregnant or thinking about becoming pregnant soon, stop using cannabis.
- If you already use cannabis for medicinal purposes, talk with your provider about other treatments that might be safer for you and your baby. Your provider can discuss alternative treatment which research shows is safer during pregnancy and provide support to stop cannabis use.
- Don't breathe cannabis smoke if you are pregnant. It is bad both for you and your baby because, like tobacco smoke, it lowers your oxygen levels, introduces toxins into your system and harms your lungs.

Even though cannabis may be legal, it is not safe for use in pregnancy or breastfeeding.

- 1. Wu, C. S., C. P. Jew, and H. C. Lu. 2011. Lasting impacts of prenatal cannabis exposure and the role of endogenous cannabinoids in the developing brain. Future Neurol 6 (4):459-480.
- 2. Leech, S. L., G. A. Richardson, L. Goldschmidt, and N. L. Day. 1999. Prenatal substance exposure: effects on attention and impulsivity of 6-year-olds. Neurotoxicol Teratol 21 (2):109-18.
- 3. Huizink AC, Mulder E. 2006. Maternal smoking, drinking or cannabis use during pregnancy and neurobehavioral and cognitive functioning in human offspring. Neuroscience and Biobehavioral Reviews. 20, 24 41.
- 4. Fried PA and Smith AM. 2001 A Literature Review of the Consequences of Prenatal Marihuana Exposure. An Emerging Theme of a Deficiency in Aspects of Executive Function. Neurotoxicol. Teratol. 23, 1 11.
- 5. Scheyer AF, Melis M, Trezza V, Manzoni O. 2019. Consequences of Perinatal Cannabis Exposure. Trends in Neurosciences. 42 (12): https://doi.org/10.1016/j.tins.2019.08/010.
- 6. Roncero et al. 2020. Cannabis Use During Pregnancy and its Relationship with Fetal Development Outcomes and Psychiatric Disorders: A Systematic Review. Reproductive Health 17:25 https://doi.org/10.1186/s12978-020-0880-9.
- 7. Gunn, J. K., C. B. Rosales, K. E. Center, A. Nunez, S. J. Gibson, C. Christ, and J. E. Ehiri. 2016. Prenatal exposure to cannabis and maternal and child health outcomes: a systematic review and meta-analysis. BMJ Open 6 (4):e009986. doi: 10.1136/bmjopen-2015-009986.
- 8. National Academies of Sciences, Engineering, and Medicine. 2017. The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research. Washington, DC: The National Academies Press. doi: 10.17226/24625.
- Allen Merritt T, Wilkinson B, Chervenak C. 2016. Maternal use of marijuana during pregnancy and lactation: Implications for infant and child development and their well-being. Acad J Ped Neonatol. 2(1):1-8
- 10. Garry, A., V. Rigourd, A. Amirouche, V. Fauroux, S. Aubry, and R. Serreau. 2009. Cannabis and breastfeeding. J Toxicol 2009:596149. doi: 10.1155/2009/596149.
- 11. Reece-Stremtan, S., and K. A. Marinelli. 2015. ABM clinical protocol #21: guidelines for breastfeeding and substance use or substance use disorder, revised 2015. Breastfeed Med 10 (3):135-41. doi: 1089/bfm.2015.9992
- 12. Herrmann, E. S., E. J. Cone, J. M. Mitchell, G. E. Bigelow, C. LoDico, R. Flegel, and R. Vandrey. 2015. Non-smoker exposure to secondhand cannabis smoke II: Effect of room ventilation on the physiological, subjective, and behavioral/cognitive effects. Drug Alcohol Depend 151:194-202. doi: 10.1016/j.drugalcdep.2015.03.019.
- 13. Perez-Reyes, M., and M. E. Wall. 1982. Presence of delta9-tetrahydrocannabinol in human milk. N Engl J Med 307 (13):819-20. doi: 10.1056/nejm198209233071311.
- 14. American College of Obstetricians and Gynecologists. 2015. Committee Opinion No. 637: Marijuana Use During Pregnancy and Lactation. Obstet Gynecol 126 (1):234-8. doi: 10.1097/01.AOG.0000467192.89321.a6.
- 15. American Academy of Pediatrics. 2012. Section on Breastfeeding: Breastfeeding and the Use of Human Milk. Pediatrics 129 (3):e827-e841. doi: 10.1542/peds.2011-3552.
- 16. Ryan SA, Ammerman SD, O'Connor ME, AAP COMMITTEE ON SUBSTANCE USE AND PREVENTION, AAP SECTION ON BREASTFEEDING. 2018. Marijuana Use During Pregnancy and Breastfeeding: Implications for Neonatal and Childhood Outcomes. *Pediatrics*. 142(3):e20181889.
- 17. Murphy SK, et al. Cannabinoid exposure and altered DNA methylation in rats and human sperm. Epigenetics. 2018; 13(12):1208-21. https://doi.org/10.1080/15592294.2018.1554521
- 18. Holloway ZR, et al. Paternal factors in neurodevelopmental toxicology: THC exposure of male rats causes long-lasting neurobehavioral effects in their offspring. NeuroToxicology. 2020; 78:57-63. https://doi.org/10.1016/j.neuro.2020.01.009
- Paul SE, Hatoum AS, Fine JD, et al. Associations Between Prenatal Cannabis Exposure and Childhood Outcomes: Results From the ABCD Study. *JAMA Psychiatry*. Published online September 23, 2020. doi:10.1001/jamapsychiatry.2020.2902

Pregnant and Breastfeeding Women and Cannabis

Consuming cannabis is not recommended for women who are pregnant or breastfeeding, or who plan to become pregnant soon. Providers should screen women for therapeutic and recreational cannabis use if they are planning pregnancy and again at intake to obstetrical care. Providers should also consider rescreening later in pregnancy. Providers may advise men that use of cannabis prior to conception may impact pregnancy and health outcomes.

Here are some important facts providers should know.

Rates of cannabis use among pregnant women are increasing. Many women who use cannabis choose to continue use through pregnancy, believing it is relatively safe. (16, 23) A recent study noted that 18.1% of pregnant women reporting cannabis use in the past year met criteria for cannabis abuse or dependence or both. (16)

Cannabis Can Harm A Baby

Research shows that if women use cannabis while pregnant or breastfeeding there is:

- Possible increased risk of stillbirth, low birth weight and preterm birth (1,2,21)
- Possible adverse effects on neurodevelopment, including long-term cognitive changes and impairment of executive function (4,21, 24)
- Possible adverse effects on mental health including increased risk of psychotic-like experiences and internalizing and externalizing attention, thought and social problems (22, 27)
- Possible increased risk for respiratory infections, bronchitis and asthma in infants and children when exposed to second-hand smoke (17)

How Cannabis Affects A Baby

No matter how a woman uses cannabis (smoking, vaping, eating, or drinking), the active ingredient in cannabis, THC (tetrahydrocannabinol), will reach the baby in three ways:

- Through the bloodstream and into the placenta. THC is highly lipophilic and distributes rapidly to the brain and the fat of the fetus. (23)
- Through the breast milk. "Pumping and Dumping" doesn't work. THC is stored in fat cells and is slowly released overs several weeks, so it stays in breast milk. (5,7)
- Through secondhand smoke that enters the baby's lungs. (8,9)

Recent research describes impacts of preconception cannabis use in men, including:

- Lowered sperm concentrations
- Links to epigenetic changes in sperm which may impact developmental and health outcomes (25,26)

There Is No Known Safe Amount of Cannabis During Pregnancy Or Breastfeeding

The American College of Obstetricians and Gynecologists (10) and the American Academy of Pediatrics (11) recommend that:

- If a woman is pregnant or thinking about becoming pregnant soon, she should discontinue use of cannabis.
- If she already uses cannabis for medicinal purposes, she should discontinue use in favor of an alternative treatment which research shows is safer during pregnancy.
- Women should not breathe cannabis smoke if pregnant. Cannabis smoke lowers oxygen levels and introduces toxins. (12, 13)

References

- 1. Gunn, J. K., C. B. Rosales, K. E. Center, A. Nunez, S. J. Gibson, C. Christ, and J. E. Ehiri. 2016. "Prenatal exposure to cannabis and maternal and child health outcomes: a systematic review and meta-analysis." BMJ Open 6 (4):e009986. doi: 10.1136/bmjopen-2015-009986.
- 2. National Academies of Sciences, Engineering, and Medicine. 2017. "The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research." Washington, DC: The National Academies Press. doi: 10.17226/24625.
- 3. Wu, C. S., C. P. Jew, and H. C. Lu. 2011. Lasting impacts of prenatal cannabis exposure and the role of endogenous cannabinoids in the developing brain. Future Neurol 6 (4):459-480.
- 4. Leech, S. L., G. A. Richardson, L. Goldschmidt, and N. L. Day. 1999. Prenatal substance exposure: effects on attention and impulsivity of 6-year-olds. Neurotoxicol Teratol 21 (2):109-18.
- 5. Garry, A., V. Rigourd, A. Amirouche, V. Fauroux, S. Aubry, and R. Serreau. 2009. Cannabis and breastfeeding. J Toxicol 2009:596149. doi: 10.1155/2009/596149.
- 6. Perez-Reyes, M., and M. E. Wall. 1982. Presence of delta9-tetrahydrocannabinol in human milk. N Engl J Med 307 (13):819-20. doi: 10.1056/nejm198209233071311.
- 7. Reece-Stremtan, S., and K. A. Marinelli. 2015. ABM clinical protocol #21: guidelines for breastfeeding and substance use or substance use disorder, revised 2015. Breastfeed Med 10 (3):135-41. doi: 10.1089/bfm.2015.9992.
- 8. Herrmann, E. S., E. J. Cone, J. M. Mitchell, G. E. Bigelow, C. LoDico, R. Flegel, and R. Vandrey. 2015. Non-smoker exposure to secondhand cannabis smoke II: Effect of room ventilation on the physiological, subjective, and behavioral/cognitive effects. Drug Alcohol Depend 151:194-202. doi: 10.1016/j.drugalcdep.2015.03.019.
- 9. Moore, C., C. Coulter, D. Uges, J. Tuyay, S. van der Linde, A. van Leeuwen, M. Garnier, and J. Orbita, Jr. 2011. Cannabinoids in oral fluid following passive exposure to marijuana smoke. Forensic Sci Int 212 (1-3):227-30. doi: 10.1016/j.forsciint.2011.06.019.
- American College of Obstetricians and Gynecologists. 2015. Committee Opinion No. 637: Marijuana Use During Pregnancy and Lactation. Obstet Gynecol 126 (1):234-8. doi: 10.1097/01.AOG.0000467192.89321.a6
- 11. American Academy of Pediatrics. 2012. Section on Breastfeeding: Breastfeeding and the Use of Human Milk. Pediatrics 129 (3):e827-e841. doi: 10.1542/peds.2011-3552.
- 12. Moir, D., W. S. Rickert, G. Levasseur, Y. Larose, R. Maertens, P. White, and S. Desjardins. 2008. A comparison of mainstream and sidestream marijuana and tobacco cigarette smoke produced under two machine smoking conditions. Chem Res Toxicol 21 (2):494-502. doi: 10.1021/tx700275p.
- 13. Tashkin, D. P. 2013. Effects of marijuana smoking on the lung. Ann Am Thorac Soc 10 (3):239-47. doi: 10.1513/AnnalsATS.201212-127FR.
- Holland, C. L., D. Rubio, K. L. Rodriguez, K. L. Kraemer, N. Day, R. M. Arnold, J. A. Tarr, and J. C. Chang. 2016. Obstetric Health Care Providers' Counseling Responses to Pregnant Patient Disclosures of Marijuana Use. Obstet Gynecol 127 (4):681-7. doi: 10.1097/aog.000000000001343.
- 15. Mark K, Gryczynski J, Axenfeld E, Schwartz RP, Terplan M. Pregnant women's current and intended cannabis use in relation to their views toward legalization and knowledge of potential harm. J Addict Med 2017; 11:211-6.
- 16. Ko JY, Farr SL, Tong VT, Creanga AA, Callaghan WM. 2015. Prevalence and patterns of marijuana use among pregnant and nonpregnant women of reproductive age. Am J Obstet Gynecol 213:201.e1-10.

- 17. Allen Merritt T, Wilkinson B, Chervenak C. Maternal use of marijuana during pregnancy and lactation: Implications for infant and child development and their well-being. 2016. Acad J Ped Neonatol. 2(1):1-8.
- 18. Huizink AC, Mulder E. 2006. Maternal smoking, drinking or cannabis use during pregnancy and neurobehavioral and cognitive functioning in human offspring. Neuroscience and Biobehavioral Reviews. 20: 24 41.
- 19. Fried PA and Smith AM. 2001. A Literature Review of the Consequences of Prenatal Marihuana Exposure. An Emerging Theme of a Deficiency in Aspects of Executive Function. Neurotoxicol. Teratol. 23, 1-11.
- 20. Scheyer AF, Melis M, Trezza V, Manzoni O. 2019. Consequences of Perinatal Cannabis Exposure. Trends in Neurosciences. Vol. 42, No. 12, https://doi.org/10.1016/j.tins.2019.08/010.
- 21. Metz TD, Stickrath EH. 2015. Marijuana Use in Pregnancy and Lactation: A Review of the Evidence. American Journal of Obstetrics and Gynecology. 761-778, http://dx.doi.org/10.1016/j.ajog.2015.05.025.
- 22. Roncero et al. 2020. Cannabis Use During Pregnancy and its Relationship with Fetal Development Outcomes and Psychiatric Disorders: A Systematic Review. Reproductive Health 17:25 https://doi.org/10.1186/s12978-020-0880-9.
- 23. Ryan SA, Ammerman SD, O'Connor ME, AAP COMMITTEE ON SUBSTANCE USE AND PREVENTION, AAP SECTION ON BREASTFEEDING. 2018. Marijuana Use During Pregnancy and Breastfeeding: Implications for Neonatal and Childhood Outcomes. *Pediatrics*. 142(3):e20181889
- 24. Government of Canada. Information for Health Care Professionals: Cannabis and the Cannabinoids. Spring 2018. https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/information-medical-practitioners/information-health-care-professionals-cannabis-cannabinoids.html.
- 25. Murphy SK, et al. Cannabinoid exposure and altered DNA methylation in rats and human sperm. Epigenetics. 2018; 13(12):1208-21. https://doi.org/10.1080/15592294.2018.1554521
- 26. Holloway ZR, et al. Paternal factors in neurodevelopmental toxicology: THC exposure of male rats causes long-lasting neurobehavioral effects in their offspring. NeuroToxicology. 2020; 78:57-63. https://doi.org/10.1016/j.neuro.2020.01.009
- 27. Paul SE, Hatoum AS, Fine JD, et al. Associations Between Prenatal Cannabis Exposure and Childhood Outcomes: Results From the ABCD Study. *JAMA Psychiatry*. Published online September 23, 2020. doi:10.1001/jamapsychiatry.2020.2902

Bill as Introduced

HB 163-FN - AS INTRODUCED

2021 SESSION

21-0012 04/05

HOUSE BILL 163-FN

AN ACT relative to cannabis use during pregnancy.

SPONSORS: Rep. Marsh, Carr. 8; Rep. Abrami, Rock. 19; Rep. Rung, Hills. 21; Rep. Crawford,

Carr. 4; Rep. Nelson, Carr. 5; Rep. Knirk, Carr. 3; Rep. Deshaies, Carr. 6

COMMITTEE: Health, Human Services and Elderly Affairs

ANALYSIS

This bill requires alternative treatment centers to prepare information regarding the risk of cannabis use during pregnancy. The bill also requires the commissioner of the department of health and human services to prepare a brochure relative to the risk of cannabis use during pregnancy and while breastfeeding.

Explanation: Matter added to current law appears in **bold italics**.

Matter removed from current law appears [in brackets and struckthrough.]

Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Twenty One

AN ACT relative to cannabis use during pregnancy.

Be it Enacted by the Senate and House of Representatives in General Court convened:

1 Statement of Intent.

The general court recognizes that the United States Surgeon General has issued a major health advisory on the risks of marijuana use in adolescence and during pregnancy. The Surgeon General's warning adheres to the generally accepted medical and psychiatric definition of an adolescent as ranging in age from 12-25 years old. The advisory reads in part:

"I, Surgeon General VADM Jerome Adams, am emphasizing the importance of protecting our Nation from the health risks of marijuana use in adolescence and during pregnancy. Recent increases in access to marijuana and in its potency, along with misperceptions of safety of marijuana endanger our most precious resource, our nation's youth."

"No amount of marijuana use during pregnancy or adolescence is known to be safe. Until and unless more is known about the long-term impact, the safest choice for pregnant women and adolescents is not to use marijuana."

"The human brain continues to develop from before birth into the mid-20s and is vulnerable to the effects of addictive substances."

"Pregnant women and youth--and those who love them--need the facts and resources to support healthy decisions. It is critical to educate women and youth, as well as family members, school officials, state and local leaders, and health professionals, about the risks of marijuana, particularly as more states contemplate legalization."

"Marijuana available in dispensaries in some states has average concentrations of THC between 17.7% and 23.2%. Concentrated products, commonly known as dabs or waxes, are far more widely available to recreational users today and may contain between 23.7% and 75.9% THC."

"The risks of physical dependence, addiction, and other negative consequences increase with exposure to high concentrations of THC and the younger the age of initiation. Higher doses of THC are more likely to produce anxiety, agitation, paranoia, and psychosis."

"Marijuana's increasingly widespread availability in multiple and highly potent forms, coupled with a false and dangerous perception of safety among youth, merits a nationwide call to action."

Therefore the general court hereby addresses these concerns.

2 New Paragraph; Use of Cannabis for Therapeutic Purposes; Definitions. Amend RSA 126-X:1 by inserting after paragraph XV the following new paragraph:

HB 163-FN - AS INTRODUCED - Page 2 -

XV-a. "Use in adolescence" means the therapeutic use of cannabis by any person whose age is within the generally accepted medical and psychiatric definition of an adolescent as ranging in age from 12-25 years old, as well as by individuals younger in age.

- 3 New Paragraph; Use of Cannabis for Therapeutic Purposes; Departmental Rules. Amend RSA 126-X:6 by inserting after paragraph V the following new paragraph:
- VI. The department shall adopt rules, pursuant to RSA 541-A, to document that counseling has been provided to all women of child-bearing age and adolescents 25 years of age or less about the risks of cannabis use in adolescence, during pregnancy, and while breastfeeding, prior to issuing or reissuing a therapeutic cannabis card to such individuals.
- 4 New Subparagraphs; Use of Cannabis for Therapeutic Purposes; Alternative Treatment Centers; Requirements. Amend RSA 126-X:8, XVI(c) by inserting after subparagraph (6) the following new subparagraphs:
- (7) Information about the risks of cannabis use during pregnancy and while breastfeeding, including the risk of low birth weight and developmental issues. Such information shall include the posting of a warning poster regarding the risks of cannabis use during pregnancy and while breastfeeding in a conspicuous location at the alternative treatment center's dispensary location.
- (8) Information regarding safe storage and disposal of cannabis and paraphernalia to prevent accidental poisonings, including the contact information for the Northern New England Poison Control Center.
- (9) Information about the risks of cannabis use in adolescence as outlined in the Surgeon General's advisory including changes in the area of the brain involved in attention, memory, decision-making, and motivation; impaired learning; declines in IQ, and school performance; increased rates of school-absence and drop-out, as well as suicide attempts; and risk for early onset of psychotic disorders, such as schizophrenia. Such information shall include the posting of a warning poster on the risks of cannabis use in adolescence in a conspicuous location at the alternative treatment center's dispensary location.
- 5 New Paragraph; Use of Cannabis for Therapeutic Purposes; Duties. Amend RSA 132:2 by inserting after paragraph XI the following new paragraph:
- XII. Prepare, in conjunction with the bureau of alcohol and drug services and the division of public health services, a brochure and a poster which provides information relative to the risks of cannabis use during pregnancy, adolescence, and while breastfeeding, which shall be posted and available to the public in all therapeutic cannabis dispensary locations pursuant to RSA 126-X:8.
 - 6 Effective Date. This act shall take effect 60 days after its passage.

HB 163-FN- FISCAL NOTE AS INTRODUCED

AN ACT relative to cannabis use during pregnancy.

FISCAL IMPACT: [X] State [] County [] Local [] None

	Estimated Increase / (Decrease)				
STATE:	FY 2021	FY 2022	FY 2023	FY 2024	
Appropriation	\$0	\$0	\$0	\$0	
Revenue	\$0	\$15,000+	Indeterminable	Indeterminable	
Expenditures	\$0	\$15,000+	Indeterminable	Indeterminable	
Funding Source:	[] General	[] Education [] Highway [X]	Other -	
	Alternative Treatment Center registration fees				

METHODOLOGY:

This bill requires alternative treatment centers (ATC) to prepare information regarding the risk of cannabis use during pregnancy. The bill also requires the Department of Health and Human Services to prepare a brochure relative to the risk of cannabis use during pregnancy and while breastfeeding. Finally, the bill requires the Department's Bureau of Drug and Alcohol Services to provide information addressing the risk of cannabis use by adolescents, and states that providers must counsel their patients on such risks. Based on past experience, the Department estimates the required informational materials will cost approximately \$15,000.

The Department notes that RSA 126-X requires the Therapeutic Cannabis Program to be self-funded through application fees paid by qualifying patients and designated caregivers and through the annual registration fees paid by the ATCs in New Hampshire, and expects that the program will cover the cost of the informational materials described above. Annual registration fees are based on Department costs for administering the program, minus the application fee revenue received from patients and caregivers. To the extent that there are anticipated program costs resulting from this legislation (in additional to the informational materials previously discussed), the ATCs will likely experience increased annual registration fees to account for such costs. The amount of any such increase is indeterminable.

This bill has an effective date of 60 days after the passage, and is assumed to take effect in FY 2022.

AGENCIES CONTACTED:

Department of Health and Human Services