



Manufacturing Update  
Medical Cannabidiol Advisory Board  
May 4, 2018

# Building Progress

## Phase I

-  Office
-  Cultivation Area

## Phase II

-  Vegetative Rooms
-  Flower Rooms
-  Pre-Extraction

## Phase III

-  Extraction
-  Post-Extraction
-  Formulation and Quality Control

# Formulations & Dosing

## Tinctures

-  Working with advocacy groups to ensure products meet patient needs

## Oral Pills

-  Incredible patient issues due to 3% THC cap

## Creams

-  Excellent formulation

## Inhaled Formulations

-  Vaporization denied by the Board of Medicine
-  Certain patients will be unable to receive treatment under this program

## Suppositories

-  2019-2020

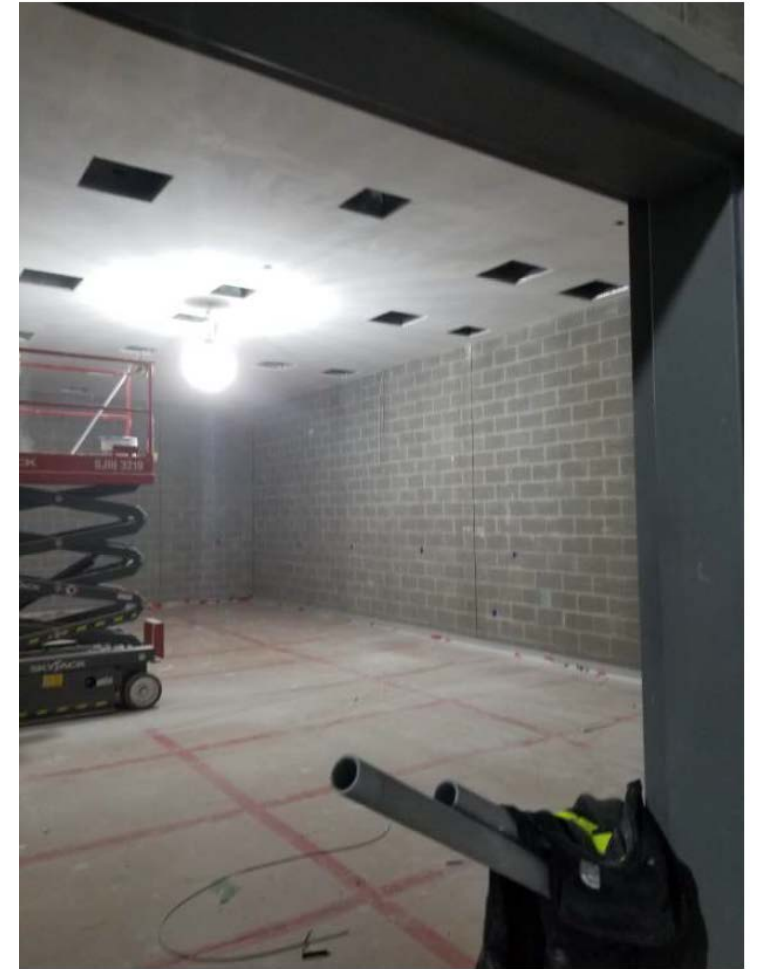
# Manufacturing Facility – Photos



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# Manufacturing Facility – Photos

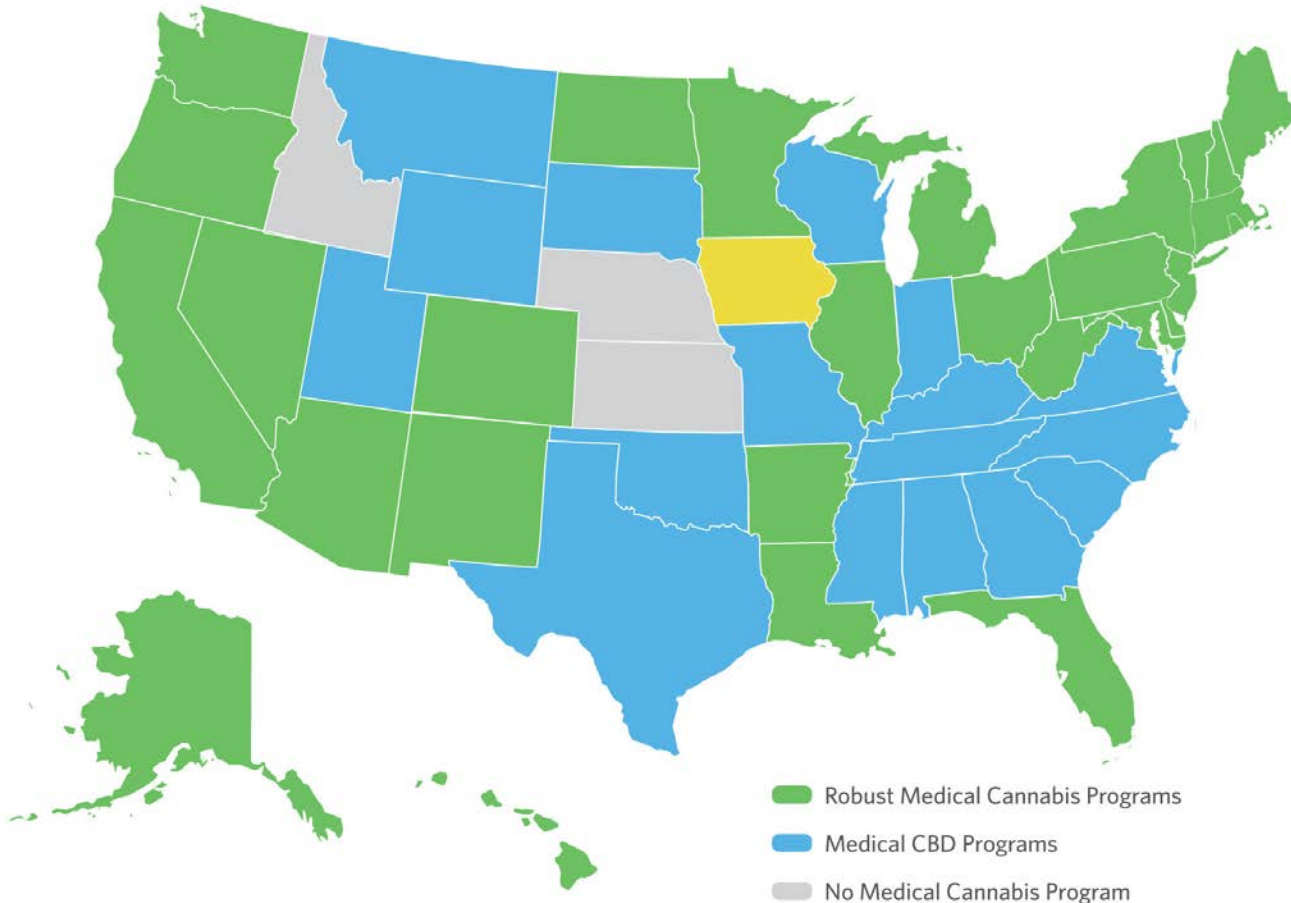


# Manufacturing Issues – 3% THC cap

- ✦ Formulating products with this cap will prevent MedPharm Iowa from meeting its obligations under the law.
- ✦ Some forms are impractical with a 3% cap.
- ✦ Some dosages will be practically impossible and cost-prohibitive.



# Manufacturing Issues – 3% THC cap



**30** robust medical cannabis programs characterized by:


- 🌿 No cap on THC
- 🌿 Multiple eligible conditions

**16** medical CBD programs characterized by:

- 🌿 THC cap
- 🌿 Conditions that can be treated by CBD and do not require THC

# Manufacturing Issues – 3% THC cap

- ❖ Average Advil<sup>®</sup> pill = 300mg weight
  - ❖ 200 mg is active ingredient = 66% active
- ❖ If you limited average Advil pill to 3% active, but still need to reach a 200mg dose for pain management...

Composition	Active mg/Pill	Pill Size	Pills Needed for 200mg Dose
Standard Single Advil <sup>®</sup>	200mg	300mg	1 
3% Capped Advil <sup>®</sup>	10mg	300mg	<b>20</b>



# Manufacturing Issues – 3% THC cap

## Economic Patient Cost of THC Dosing

Example: 150 mg/day

Forms	Needed Doses/Day	Retail Cost/Dose	Patient Cost/Day
3% THC Inhaler	1,000 inhalations	\$0.45	\$450
50% THC Inhaler	60 inhalations	\$0.45	\$27
3% THC Pill	15 pills	\$3.00	\$45
25% THC Pill	2 pills	\$3.00	\$6.00

## Retail Costs

Item	Doses	Cost/Item	Cost/Dose
Inhaler Cartridge (3%-50% THC)	200	\$90.00	\$0.45
Bottle of 30 Pills	30	\$90.00	\$3.00

90 day supply of 3% pills = **1,350 pills**  
90 day cost = **\$4,050**

# Manufacturing Issues – 3% THC cap

THC range (in literature) Per Condition <sup>1</sup>		Pills/day at top range with 3% THC cap
<b>Cancer</b>		
Nausea/vomiting	5-1000 mg THC/day	<b>100 pills</b>
Appetite		
Pain		
<b>MS</b>		
Pain	10-130 mg THC/day	<b>13 pills</b>
Spasticity		
<b>HIV</b>		
Appetite	5-120 mg THC/day	<b>12 pills</b>
Pain		
<b>Chronic Neuropathic Pain</b>		
Pain	5-300 mg THC/day	<b>30 pills</b>
<b>Crohn's</b>		
Crohn's	15-230 mg THC/day	<b>23 pills</b>
<b>Epilepsy</b>		
Epilepsy	0-30 mg THC/day <sup>2</sup>	<b>3 pills</b>

1. Information compiled from review of more than sixty (60) scientific papers. Citations available upon request.

2. Most formulations are CBD only; some pills may be formulated with a 20:1 ratio of CBD to THC.

# Conclusion

- ❖ Iowa patients won't be served by the 3% THC cap.
- ❖ Potential caps on milligrams of THC dispensed would better serve patients and the program.
- ❖ ***There is still time left to take action today – will you?***
  - ❖ Patients and the industry urge you to take action **today to remove the cap or consider a workable milligram cap.**