Decriminalising Marijuana

The Impact on

Society and the industry

Professor Wendel Abel, UWI, Mona



#### Disclaimer

I don't plant cannabis in my garden



#### **A DANCE**

#### **Questions?**

- Are there health benefits?
- Do you think marijuana is harmful?



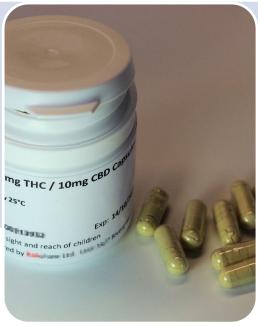
#### Marijuana — A Popular Drug

Derived from the plant cannabis

Most widely used illegal drug worldwide

#### Uses of Marijuana







Recreational

Medical

Religious

#### Legalisation vs Decriminalisation

#### Cannabis Laws Vary

Illegal – Laws. Penalty.

Decriminalisation – Illegal. Penalty minimal.

Legal – No laws. No penalty.

#### **Decriminalisation Varies**





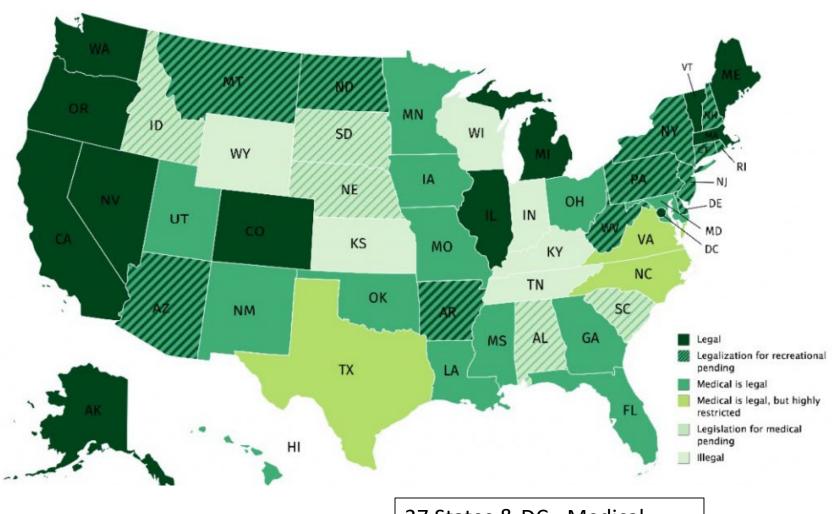


Recreational

Medical

Religious

#### Marijuana States -USA



April 2022

37 States & DC - Medical

18 States & DC - Recreational

#### Decriminalisation in the Caribbean

#### Recreational Cannabis

- Decriminalised in most

- Illegal in (Bahamas, Barbados, Grenada, Guyana, Suriname)

#### Medical Use

Decriminalised
 Barbados, Bermuda, Jam, SVG

Illegal in others – Use with permission

#### Religious

• Jamaica

Barbados

#### **Proponents For Decriminalisation**

- Criminal Justice
  - Cost
  - Criminal record for possession
  - Minorities affected

Access to medical marijuana

#### **Negative Impact**

Harmful health effects

Effects on young

Public health – drug driving

Diversion into illegal trade

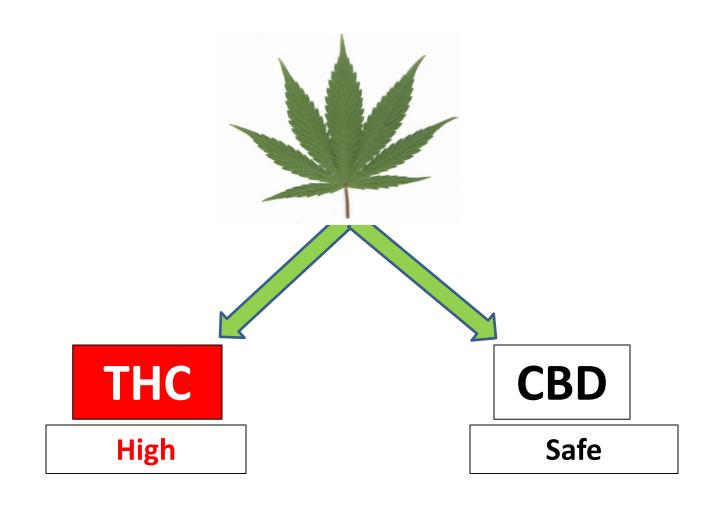
#### **Chemicals in Cannabis**

Over 400 compounds

- Most common
  - -Tetrahydrocannabinol (THC)

-Cannabidiol (CBD) — safe

#### Two Major Chemicals



#### Marijuana Preparations

Plant (stem, leaf, seed, root, resin)

Resin

Edibles

Plant extracts

#### **HEMP**

Cannabis Plant – Low THC

Major source of Cannabidiol

 Removed from Controlled Substance Act (2018 Farm Bill)

#### Routes of administration Marijuana

#### Inhalation

- Smoking
- Vaporizing

#### By Mouth

- Edibles
- Beverages
- Capsules









Products





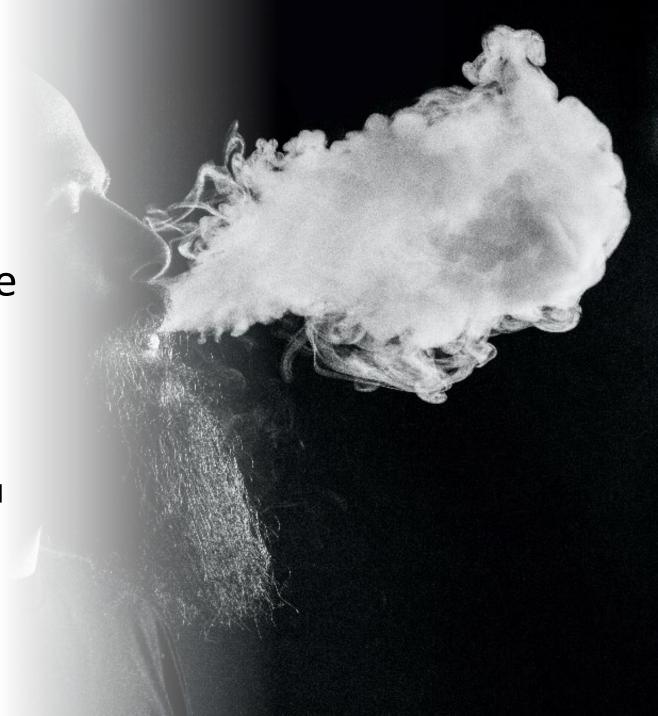
#### Vaping

Vaping

80/20 Rule

Vaping - 80% absorbed

Smoking - 20 % absorbed





Medical Marijuana

#### What is Medical Marijuana?

Use of the plant or extracts to treat medical conditions.

#### Medical Marijuana Long History

Over 5000 years

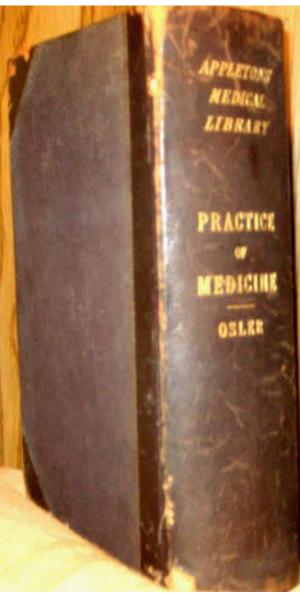
US Pharmaceutical - (1854-1941)

Before 1937 – over 2000 cannabis preparation

#### Medical Marijuana Products before 1937



#### Treatment of Migraine



THE PRINCIPLES AND

PRACTICE OF MEDICINE

DESIGNED FOR THE USE OF PRACTITIONERS AND STUDENTS OF MEDICINE

870

#### WILLIAM OSLER, M.D.

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NEW YORK D. APPLETON AND COMPANY 1888



#### Medical Marijuana in the Caribbean

Although the drug was scheduled

- Laws allowed for medical use with permission in many Caribbean countries
  - Jamaica, Barbados, Suriname, Bahamas

#### Drugs Developed - Jamaica



Canasol – Eye Drop

• 1987

WIMJ, 1978; 27:16-25 West ME, Lockhart AB. Br J Aneasth 76:167

### The Scientist Behind Medical Marijuana - Jamaica

**Professor Manley West** 

**Dr Albert Lockhart** 





#### Launch of Medicanja



# FDA Approves Epidiolex (2018)



- Plant derived (CBD) extract
- Treatment of seizure

#### **Synthetic THC**



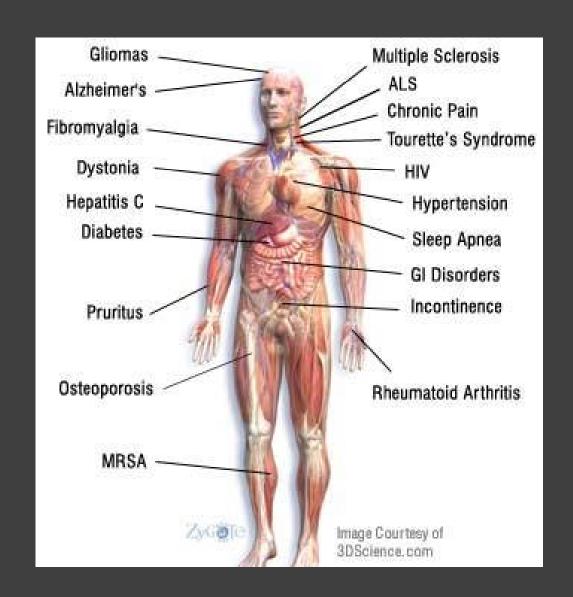
Dronabinol (MARINOL)



Nabilone (CESAMET)

FDA Approved for chemotherapy related nausea and vomiting (FDA) Synthetic products lack psychoactive properties Absorption unpredictable

## Claims of benefits for over 50 conditions



#### Health Benefits of Cannabinoids

Health Effects of Marijuana	P. P. C.	EN.	80	80	80,4	80	BC.	\	Benefits
Pain relief									Analgesis
Reduces inflammation									Anti-inflamatory
Supresses appetite									Anoretic
Stimulates appetite									Appetite stimulant
Reduces vomiting and nausea									Antimetic
Reduces contractions of small intestine									Intestinal antiprokinetic
Relieves anxiety									Anxiolytic
Tranquilizing / psychosis management									Antipsychotic
Reduces seizures and convulsions									Antiepileptic
Suppresses muscle spasms									Antispasmodic
Aides sleep									Anti-insomnia
Reduces efficacy of immune system									Immunosuppresive
Reduces blood sugar levels									Anti-diabetic
Prevents nervous system degeneration									Neuroprotective
Treats psoriasis									Antipsioratic
Reduces risk of artery blockage									Anti-ischemic
Kills or slows bacteria growth									Anti-bacterial
Treats fungal infection									Anti-fungal
Inhibits cell growth in tumours / cancer	$\top$								Anti-proliferative
Promotes bone growth									Bone-stimulant

Chad Sivad cannabinoids (2015)

From: Health Benefits of Marijuana. <a href="https://www.coloradopotguide.com/colorado-marijuana-blog/2015/march/31/the-positive-effects-of-cannabinoids/">https://www.coloradopotguide.com/colorado-marijuana-blog/2015/march/31/the-positive-effects-of-cannabinoids/</a>

### Medical Marijuana

Lots of medical claims unfounded

More research needed

#### Medical Uses

- Pain
- Nausea and vomiting due to chemotherapy
- Appetite stimulant
- Seizure disorder
- Sleep
- Post Traumatic Stress Disorder
- Depression

### **Health Risks**

#### **Smoked Cannabis**

Tar similar that found in cigarette smoke

same cancer causing chemicals as cigarette

Not linked to lung cancer

Associated with lung disease

### Lung Disease

- Chest colds
- Bronchitis
- Emphysema
- Bronchial Asthma



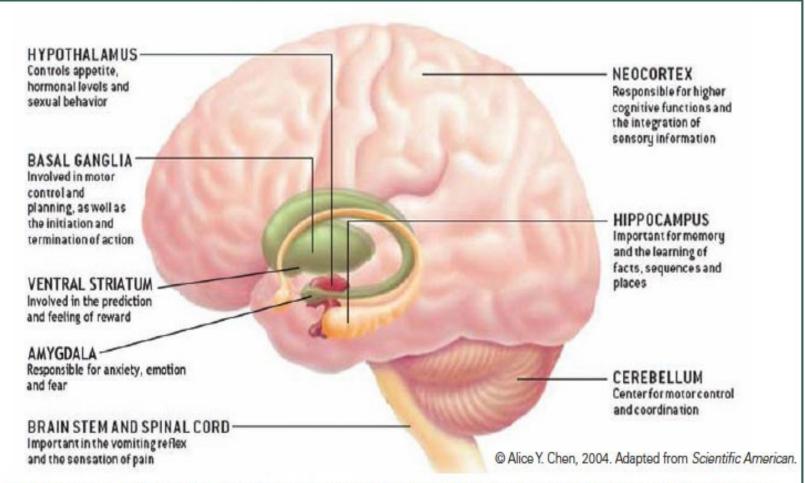
# Medical (Smoking)

- Lack of dose control
- Health benefits when smoked not scientifically proven

#### Effects on the brain

- High
- Altered perception
- Altered mood
- Impaired co-ordination
- Impaired thinking and problem solving
- Disrupted learning and memory

#### Marijuana's Effects on the Brain



When marijuana is smoked, its active ingredient, THC, travels throughout the body, including the brain, to produce its many effects. THC attaches to sites called cannabinoid receptors on nerve cells in the brain, affecting the way those cells work. Cannabinoid receptors are abundant in parts of the brain that regulate movement, coordination, learning and memory, higher cognitive functions such as judgment, and pleasure.

#### Cannabis and Adolescents

Memory and learning

Poor school performance

Poor work performance

Dangerous driving

### Why adolescents?

Brain continues to develop up to age 25

Cannabis can damage the adolescent brain

Effect not seen adults



### Increased Potency of THC

Potency of marijuana has increased

In Jamaica – increased ten fold

#### Cannabis and Mental Disorder

May cause psychosis in persons who are vulnerable

- Psychosis associated with heavy use
- Psychosis associated potent cannabis
- Worsens mental disorder

### Driving Under Influence of Drugs

Increased with decriminalization

Increased potency of THC of cannabis

Increased risk of motor vehicle accidents

### Cannabis and Driving

- There is a level of consumption that is safe
- No standardized test for detection of drug impaired driving
- Cannabis remains body for 30 days
- Difficult to determine if driver used at time of accident

#### Unresolved Technical Issues

Appropriate levels of cannabis for driving

Potency guidelines

Acceptable product forms

### Workplace Safety

Cannabis affects coordination

Impacts on driving

Operation of complex equipment

Implications for workplace safety

### Poor Regulation of Products

Potency of THC not stated

 Not tested for contaminants – fungus, pesticides etc.

## Marijuana and Insurance

- Increasing demand for Marijuana
- Growth in Cannabis Related Businesses
- Medical Treatment & Insurance
- Auto -insurance risks
- Workplace safety concerns

#### **Marijuana and The Insurance Industry**

Opportunities

Challenges

Emerging risks

#### **Opportunities**

Insurance Gaps – along the supply chain

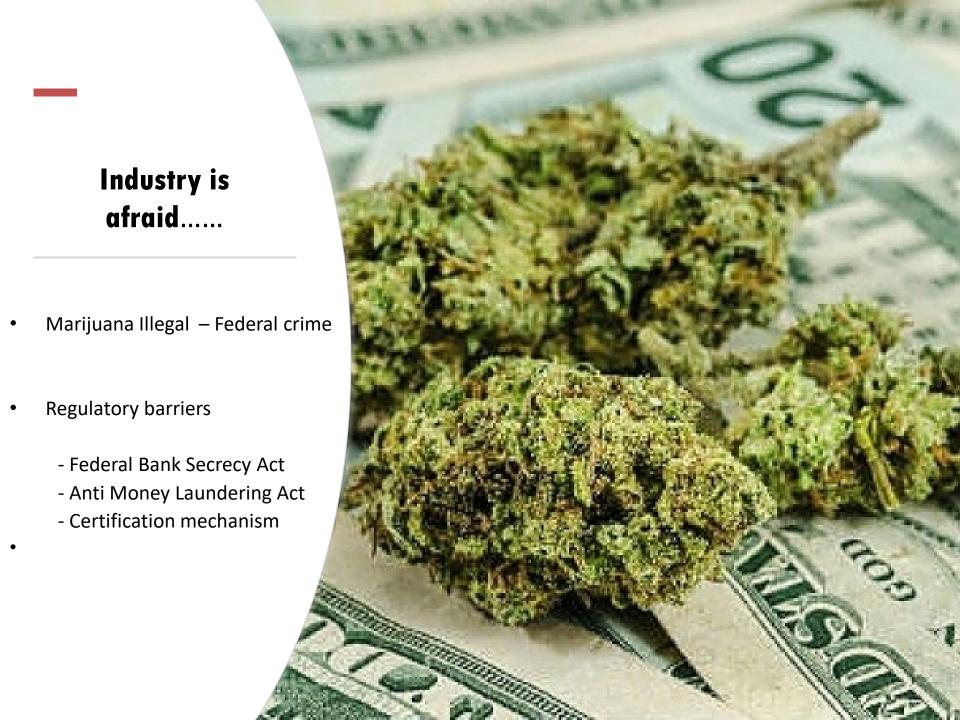
Cultivation Manufacturing Retail Distribution Testing Associated Business Security, medical etc..

#### **HEMP**

Insurable crop

- Cut off
  - USA (0.3%)
  - Jamaica (1%)

 Hemp Industry – textile, paper, construction material, animal feed, food



### **Emerging Risks**

Motor Insurance

Personal Injury – workplace

Medical Marijuana

### Interesting Trends (2021)...

- SAFE Banking Act Bill
  - Business access to financial services/products
- CLAIM (Clarifying Law Around Insurance of Marijuana)
  - Protect financial institutions & business
- Stuck in the Senate...

### Interesting Trends (2022)....

 MORE (Marijuana Opportunity Reinvestment & Expungement) Act

Bill passed by US Congress to decriminalize MJ (March 2022)

Not likely to be passed by Senate

### **Influence Public Policy**

Education to reduce cannabis use among youth

Education for responsible adult use

Treatment services

Protect Public Health – Drug Driving, smoking in public

## UWI-2015



### Medicinal Cannabis Research

Professor Wayne Mc Laughlin Co- Chair

Professor Wendel Abel Co - Chair





#### MOU SIGNED WITH CITIVA







#### ONE LOVE

One love, One heart Let's get together and be alright

# Legal Status in Caribbean

Country	Recreational	Medical
Antigua & Barbuda	Decriminalized	Illegal
Bahamas	Illegal	Illegal Use with license
Barbados	Legal – Spiritual Use (Rastafarians)	Legal
Belize	Decriminalized up to 10 g	Illegal
Bermuda	Decriminalized up to 7 g	Legal
Dominica	Decriminalized up to 1 oz (28 g)	
Grenada	Illegal	Illegal

# Legal Status in Caribbean

Country	Recreational	Medical
Guyana	Illegal	Illegal
Jamaica	Decriminalized up to 2 oz (57g) Cultivation of 5 plants Legal for Rastafari	Legal
St. Kitts & Nevis	Decriminalized up to 15 g	Illegal
St. Vincent & Grenadine	Decriminalized up to 2 oz (57g)	Legal
Suriname	Illegal	Illegal Use with license
Trinidad & Tobago	Decriminalized up to 30 g Cultivation of 4 plants	Illegal

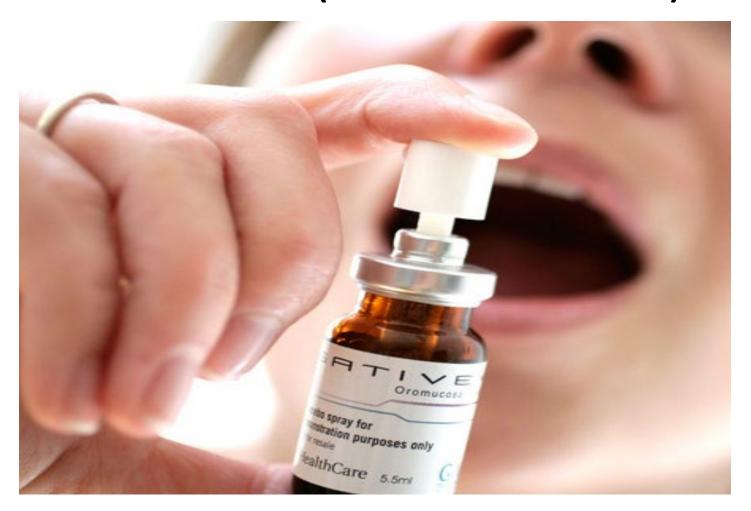
### **Other Countries**

Country	Recreational	Medical
Cuba	Illegal	Illegal
Dom Rep	Illegal	Illegal
Haiti	Illegal	Illegal
Canada	Legal	Legal
UK	Illegal (Warning or fine for possession)	Legal when prescribed
USA	Illegal – Federal Level Legal – 19 States & DC Decriminalized – 12 States & 1 territory	Illegal – Federal Level Legal – 37 States, DC & 4 territories

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# SATIVEX (Herbal Extract)



**CBD And THC** 

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