



School of Pharmaceutical Management

Study on the Challenges and opportunities for an Indian Pharmaceutical Company in International De-Addiction Market.

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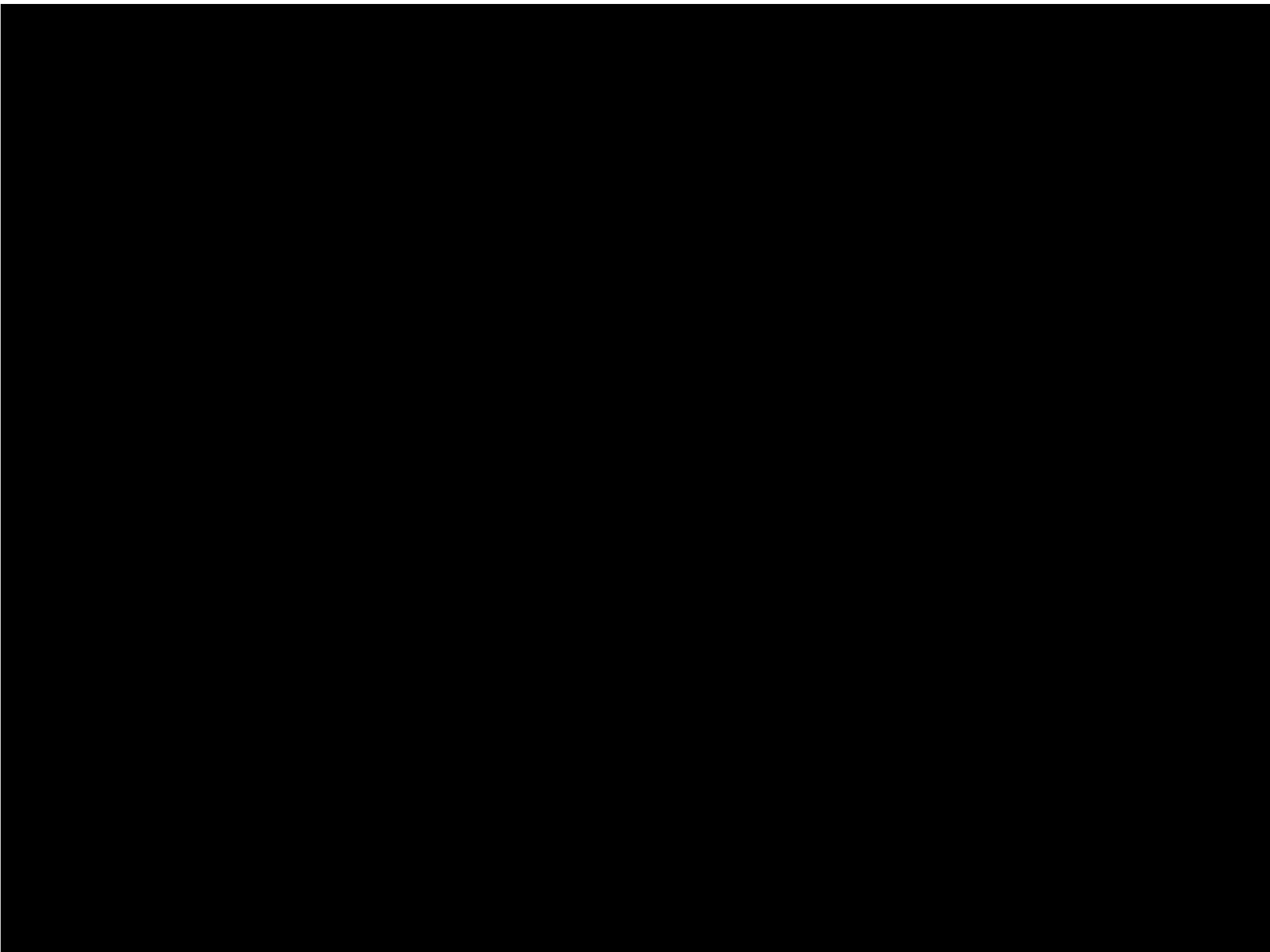
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Background

- The pharmaceutical industry is the fastest growing among other industry
- De-addiction Market was around 4 billion in 2016 and is expected at growth rate of 6% by 2025 at 7 billion.
- The main reasons for addiction are - friend circle, experimentation or self-motivation, peer pressures and may be for other reasons.
- In the de-addiction treatment not only pharmacological treatment is important but psychological treatment is very important for a patient.

Objectives

- To know various initiatives taken by governments of each countries.
- To know about various treatments available in different country.
- To know about various challenges faced in market.
- To identify the key drivers in de-addiction market.



The addiction of drugs leads to:-

- Cardio-Vascular Disease
- Stroke
- Cancer
- HIV/AIDS
- HBV/HCV
- Tuberculosis
- Mental disorder
- Aging

The effects of drugs on Organs

1.Brain- The drugs mainly causes impairment in learning, insomnia, emotional instability, changes in heart rate, body temperature, breathing.

2.Mouth:- By chewing of drugs it mainly causes tooth decaying, gum disease and bad breath.

3.Heart:- _Heart attack, stroke, blood clots, heart damage, sudden death.

4.lungs:- Smoking of drugs causes bronchitis, lung infection and frequent coughing

Addiction of alcohol leads to:

- Anaemia and low platelet count
- Osteoporosis
- Thiamine deficiency and leads to Wernicke's encephalopathy.
- **Korsakoff's syndrome**
- Breast Cancer
- Blurred vision
- Decreased vision
- Coronary artery disease
- Atherosclerosis

Effects of alcohol on organs

- Brain- Mood and behaviour.
- Heart- Cardiomyopathy, arrhythmias, stroke , blood pressure.
- Liver- Fatty liver, fibrosis, cirrhosis.
- Pancreatitis.
- Immune system- Pneumonia and various types of cancers.

Addiction of Tobacco leads to:

- Skin wrinkles
- Brown teeth
- Gum disease
- Bad breath
- Anxious
- Moody
- Ruin some of the taste bud
- Increase in blood pressure
- Damage of lungs

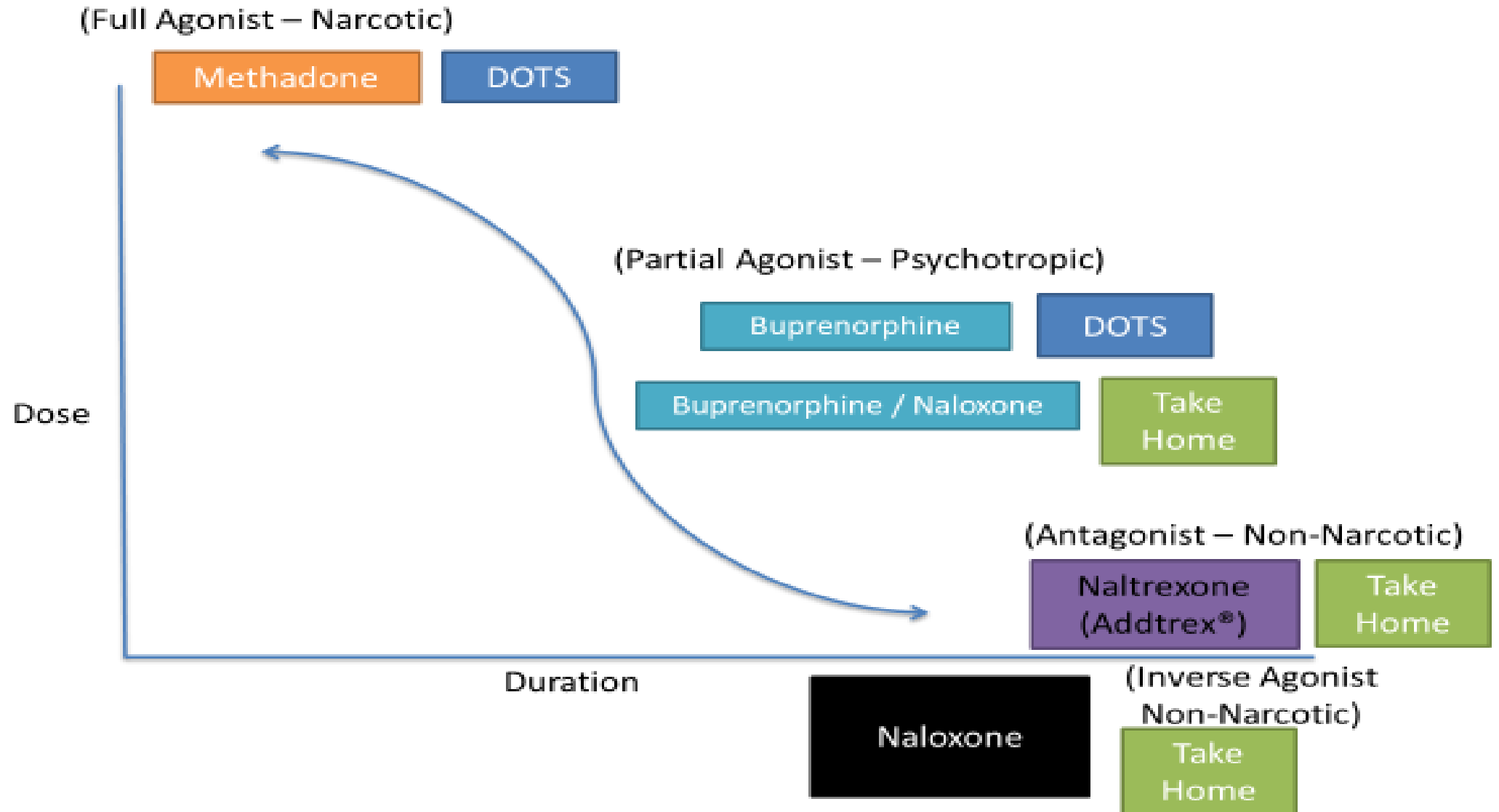
Effects of Tobacco on organs

- Brain- Makes addictive, headache and dizziness .
- Mouth- Bad breath and stains on teeth.
- Heart- Increased heart rate, heart attack
- Lungs- Coughing with phlegm and lung cancer.
- Skin- Yellow and wrinkled skin.
- Muscles- Aching of muscles during exercise or playing due to deprivation of oxygen

Therapies classification

Group A Drug - MMT	• Methadone Syrup (365 days) • Naloxone PFS (preventive – for overdose)
Group B Drug - BMT	• Buprenorphine/Naloxone Sublingual Tablet (365 days) • Naloxone PFS (preventive – for overdose)
Group C Drug - Rapid Detox	• Buprenorphine/Naloxone Sublingual Tablet (21 Days) • Low Dose Naltrexone, Naltrexone Oral Tablets (9 days) & Implant • Naloxone PFS (preventive – for overdose)
Group D Alcohol – Regular Detox	• Naltrexone Oral Tablet (50 mg) (180 to 365 days)
Group E Alcohol – Rapid Detox	• Naltrexone Oral Tablet (21 days) • Naltrexone Implant (90 to 180 days)
Group F Tobacco – NRT - Patches	• Nicotine Transdermal Patch (3 months)

CONCEPT OF HARM REDUCTION



Pradeep Gupta,(November 2017) Drug Addiction: Current Trends and Management

- Drug addiction is a chronic, relapsing brain disease characterized by compulsive drug seeking the drugs are classified into depressants, barbiturates, narcotics, stimulants and Marijuana/Cannabis.
- Treatments are classified into Pharmacotherapy and Psychological therapy. Motivational enhancement therapy, behavioural therapy, Cognitive-Behavioral therapies , Group Therapy, Family Therapies , Social Resistance Skills and Normative Education.

NHS(2016/17)Alcohol-Related Hospital Statistics AT Scotland, Publication date – 21 November 2017 *reported as follows:*

The effects caused by alcohol on Brain, toxic effects of alcohol and liver sclerosis. The excessive intake of alcohol leads to a condition called as Alcohol related brain damage and can cause problem in cognitive behaviour

Methodology

- Place of study: - Rusan Pharma LTD(Mumbai).
- Target audience: - Country managers, Regulatory team, Export team, Supportive team.
- Sampling method:- Convenient sampling
- Sample size n:- 64
- Study tool: - Semi structured questionnaire with five point Likert scale and focus group discussions.
- Study design:- Descriptive study
- Survey Instruments:- The questionnaire was semi structured and the focused group discussion was held where each country managers were sharing there experiences in market like the challenges and the ways they converted those challenges into opportunity.

Sign up

Work place

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Resources

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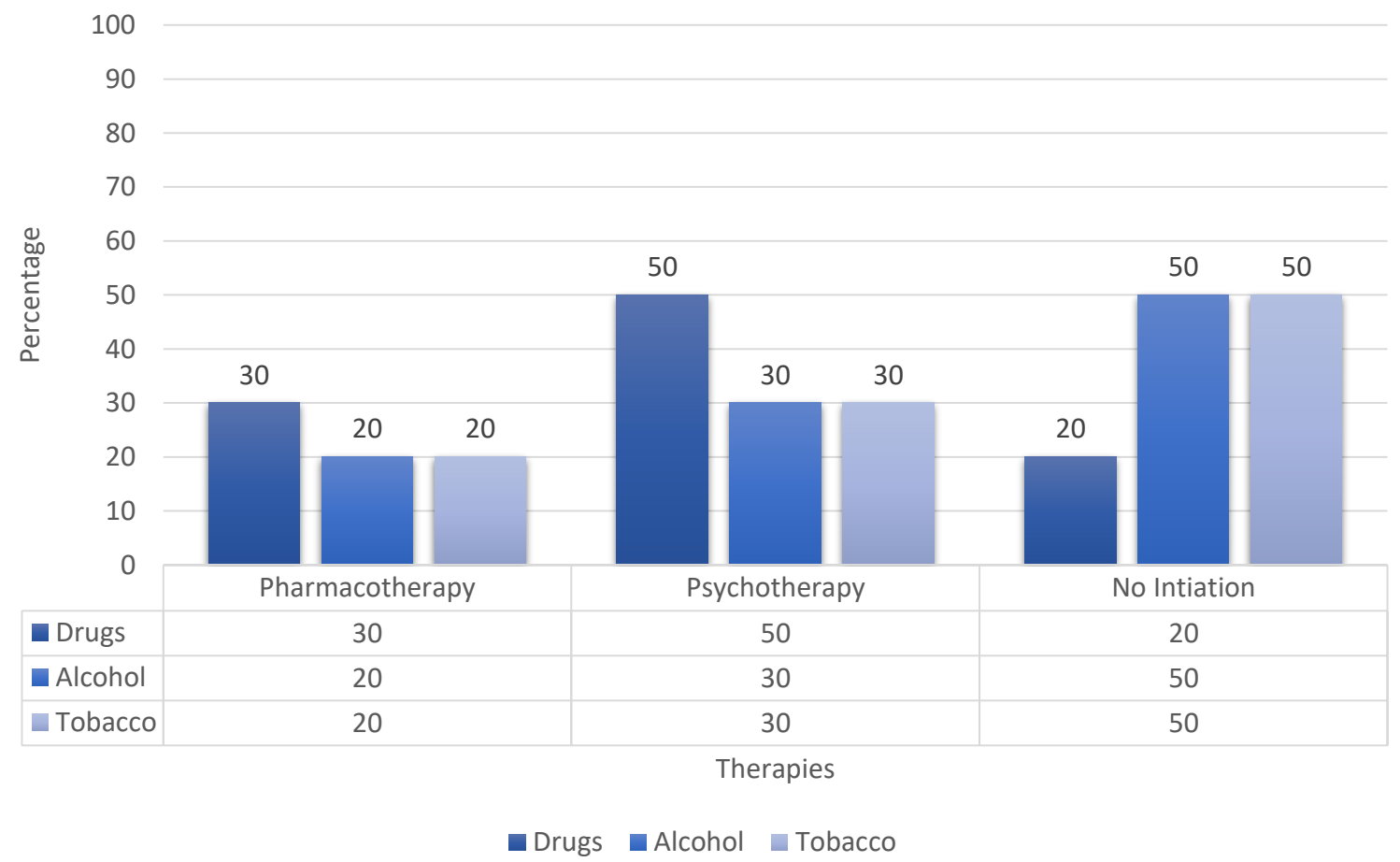
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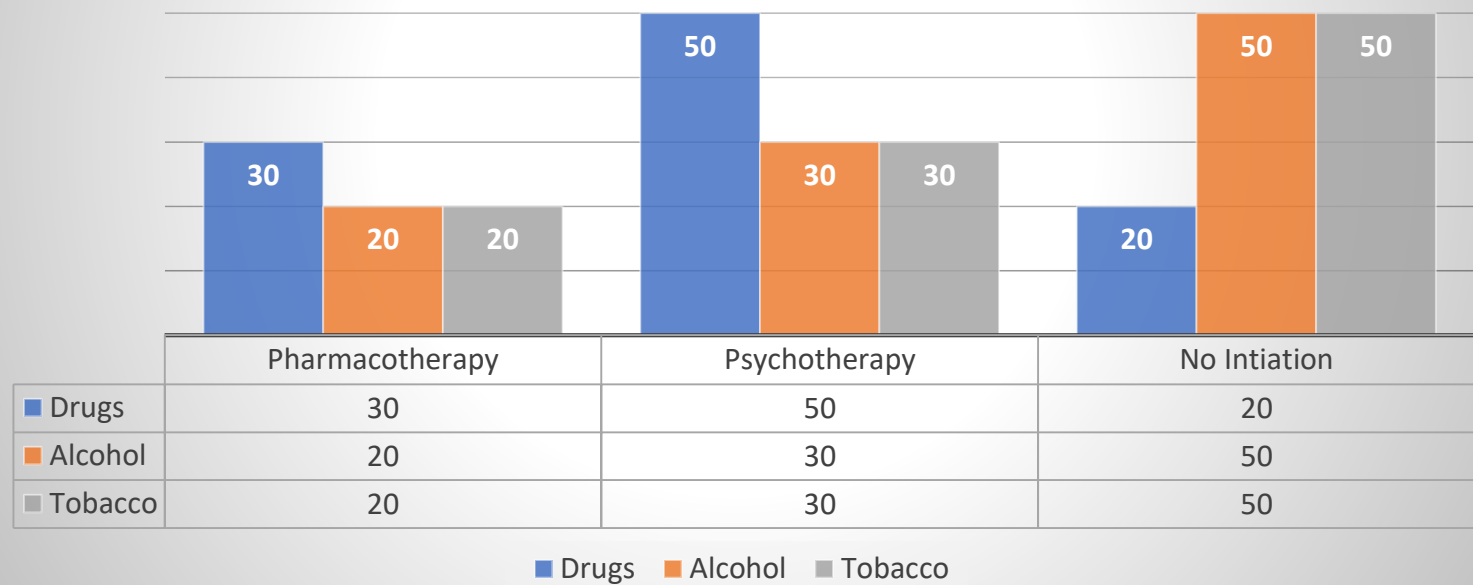
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Initiatives
Taken for
avoiding
Substance
Abuse



Treatments available for substance abuse



Results and conclusion.

- Objective 1 :-

The government initiated OST centers and Laws are implemented in Bangladesh, Myanmar, Kenya, Tanzania, Peru, Chile, Bolivia, Ecuador, Zambia, Panama Elsalvador and CIS countries.

- Objective 2 :-

- In Zambia and Kenya- **Buprenorphine** is used in government based OST center.
- In above mentioned other countries – **Methadone syrup** is used in OST centers.
- In Latin America **Methadone tablets** are used.
- Psychotherapy is majorly used in these countries.

OBJECTIVE 3:-

Challenges:-

- Knowledge about treatment available
- Political conflict in Peru and Bolivia.
- Economic crisis-Zimbabwe, Angola, Malawi and Madagascar there are.
- Different regulatory requirements from country to country and consumes more time.
- Export permit
- Management of Methadone is Very poor in Latin America.
- Product registration in Latin America is required.
- Misuse of Methadone by addicts are very high in Kenya.

Objective-4

- INCB/CBN
- Psychologist
- De-Addiction communities
- Ministry Of Health
- Manufacturers
- Suppliers/LTR/Distributor partners
- Communities of STD

Opportunities

- The OST centers in Bangladesh, Myanmar, Kenya Zambia, Ecuador, Panama, El Salvador, Peru, Chile, Bolivia and Tanzania .Buprenorphine can be pitched. In other places apart from Zambia and Kenya.
- The narcotics commission board in Myanmar and Bangladesh are looking forward for an alternative of Methadone management therapy.
- The patient once treated with all type of management therapy then he/she will be detoxified using Addtrex tablets and then to avoid the condition of craving the **Addtrex implant** are to be inserted.

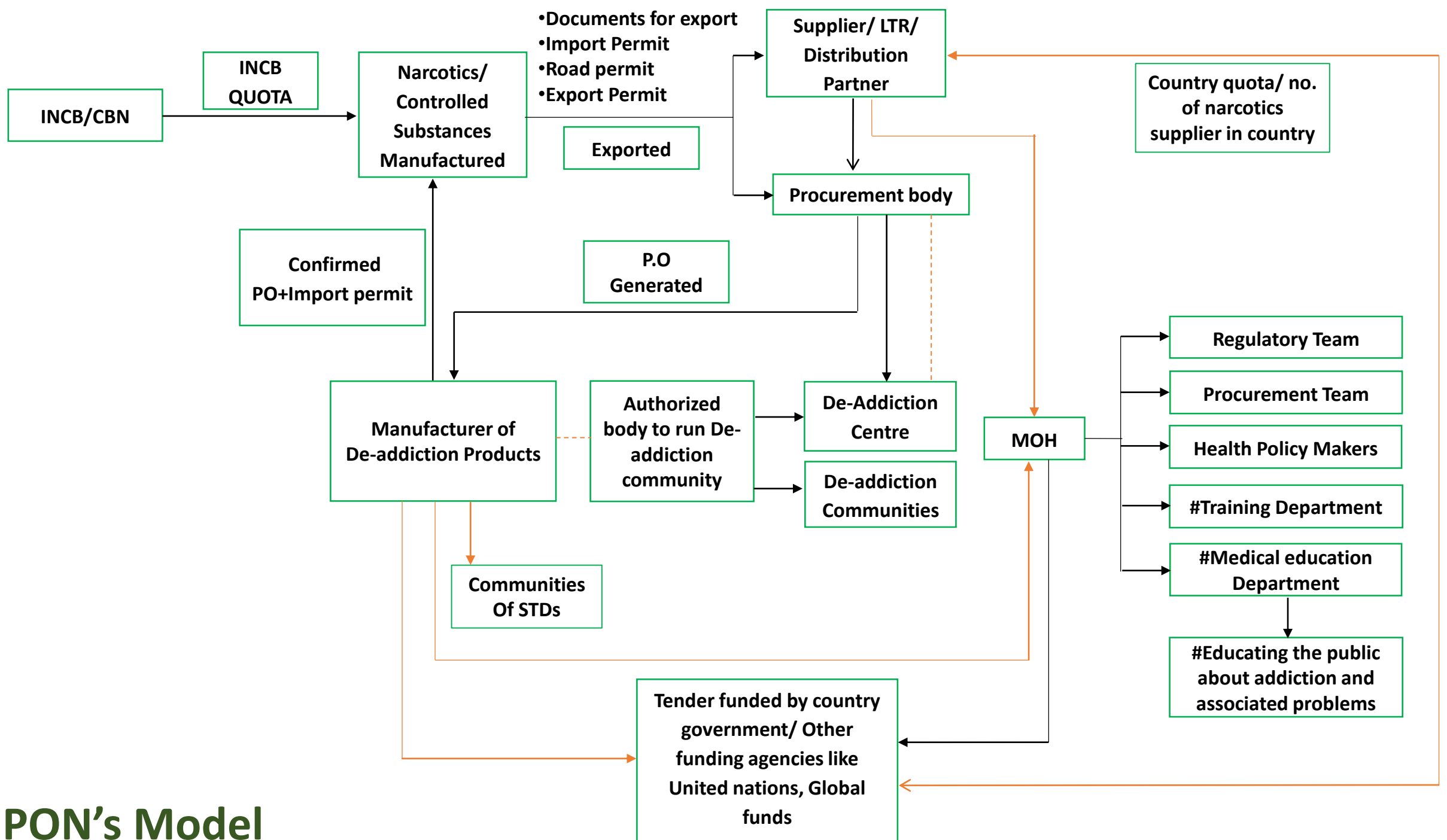
- Alcohol and Tobacco addiction is not yet included in program of ministry
- In few part of the country they believe only Psychological therapy is the only way to treat addiction.
- In majority of the country Methadone is used as a gold standard for OST but use of methadone in all kind of addicts is not advisable moreover methadone is a management therapy in order to treat the addicts and make them free from addiction we can suggest them to switch addict to Addnok.

- Advantage of Addnok and Addnok –N Over Suboxone and Subutex.
- In Latin America countries Addnok, Addnok-N, Addtrex Tab and Implant initiation can be done.
- In Latin America huge amount of people are not covered under scheme of de-addiction.
- There are only few registered brands of products available in Latin America for deaddiction program.
- The products can be exported based on special permit.
- The Methadone suppress ARV's in drug injecting AIDS patient so buprenorphine can be used

Suggestions

PON'S Model

- P- Prabu Dayal Ji
- O-Oza Pradeep
- N-Dr. Sandeep Narula



PON's Model

- Manufacturer of De-addiction Products: The products are manufactured only when purchase order is confirmed and also based on country quota.
- The Import permit will be obtained for purchase order.
- Once products are manufactured based on the quota the Road permit and export permit are granted.
- The products is then delivered to supplier or directly to procurement body.
- The products are then carried forward to De-addiction centers.
- The manufacturing and use of de-addiction products (Narcotics) are monitored by INCB and CBN.
- The orange line indicates the Key business drivers about whom manufacturer and supplier partner should know.

Tertiary Manager

- Authorized body to run De-addiction centers.
- Ministry of Health
- Regulatory and quota of narcotics

Secondary Manager

- De-Addiction Centers and communities.
 - Procurement in charge, Registration authority and quota

1st line Manager

- De-addiction center and regulatory authority

Awareness

Exposure

Promotion of Turma Boost

- Chemicals induce stress on cells turmeric decrease the oxidative stress and avoid conversion of cells into tumor .
 - 2baconil Patch- By PPB It can be promoted internationally.
- Ex:- TATA groups(Public)+Rusan(Private)= Promote anticancer product.

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THANK
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