

Medical Cannabis Production in Israel Under the New Governmental Policy: Economic Impacts

By: Dr. Dan Dvoskin

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Introduction

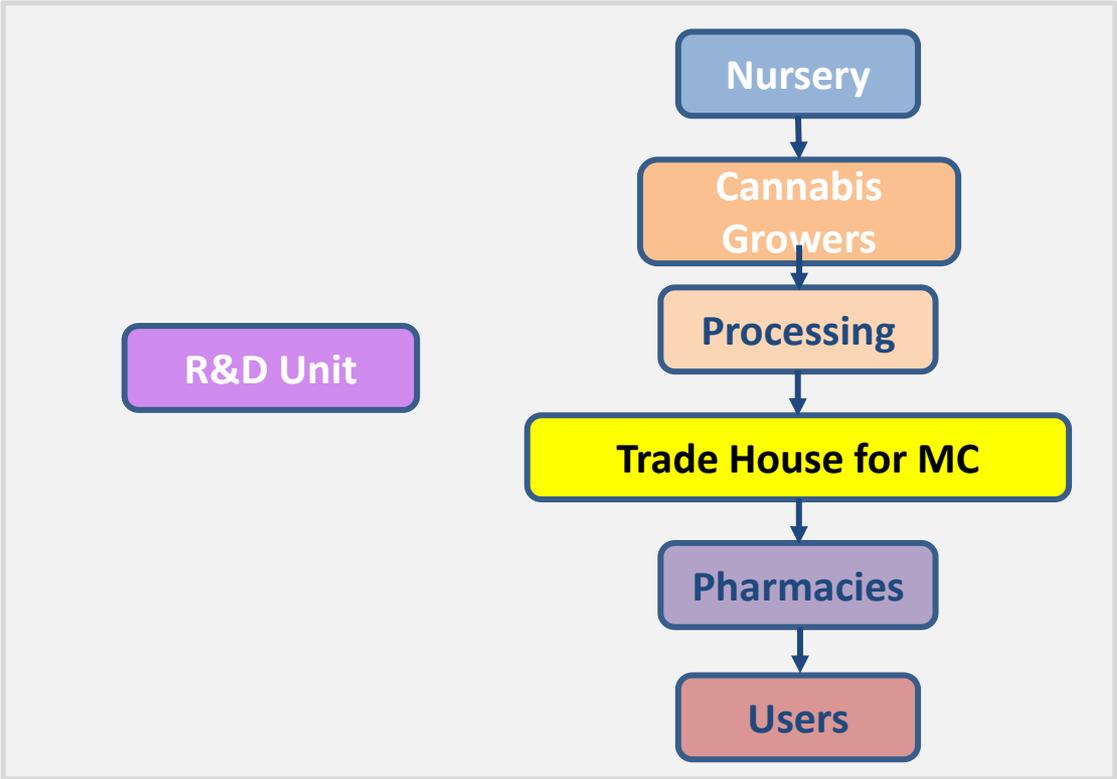
- The area of medical cannabis in Israel and in other countries is growing fast as the general recognition of the benefits of medical cannabis for the welfare of many people who are suffering from various illnesses and pain.
- The Government of Israel (GOI) adopted the new Medical Cannabis Order (MCO) proposed by the Israel Ministry of Health, (IMH) by unanimous decision, on June 26, 2016.
- While the new order is an improved version of the 2013 proposed MCO, it still comes up very short of facing the reality of the economic environment surrounding agricultural crops in general and medical cannabis in particular.
- **Dr. Dan Dvoskin** is an American trained agricultural economist with almost 40 years of international agricultural development experience including the introduction of many new crops. For the last 5 years he has been involved in medical cannabis in Israel and in other countries.

The New Governmental Medical Cannabis Order and Prices

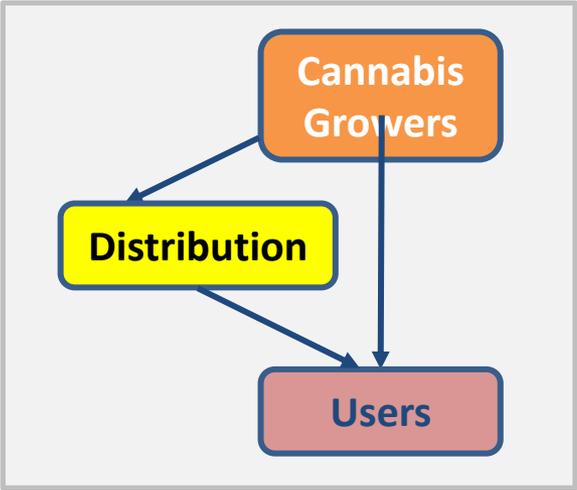
- There are many issues covered by the new MCO not related to the production and the distribution of MC to current and future users.
- This paper focuses on a few issues related mainly to production.
- As part of the new MCO, the Government suggested **the establishments of 5 independent units** starting with a nursery until reaching the users. This is **instead of the 3 units** operating now (See below).
- This includes a new unit (nursery for MC plants) and R&D unit with exclusivity rights.
- While the new MCO grants exclusivity rights to each unit in the system, **it does not specify the working environment** of each unit. Thus, while **ruling out the competition** in the system it does not establish, for example, the **transfer price system or the markup** that each unit can apply.
- The Israeli and the international experience clearly show that **adding units in the marketing chain of agricultural products, causes a sharp increase in prices**. This is the reason for the development of the direct marketing idea where farmers can sell products directly to consumers. The situation in the MCO is even worse because of **the exclusivity rights**.
- Our initial estimate is that the current cost of medical cannabis to the user in Israel, about \$3.00 per gram, **might increase to \$16.00 per gram**.
- This means that the current monthly cost to the user in Israel (about \$95) might rise to **more than \$500 per month**. Such cost is not part of the national medical insurance and is not covered by the sick funds.

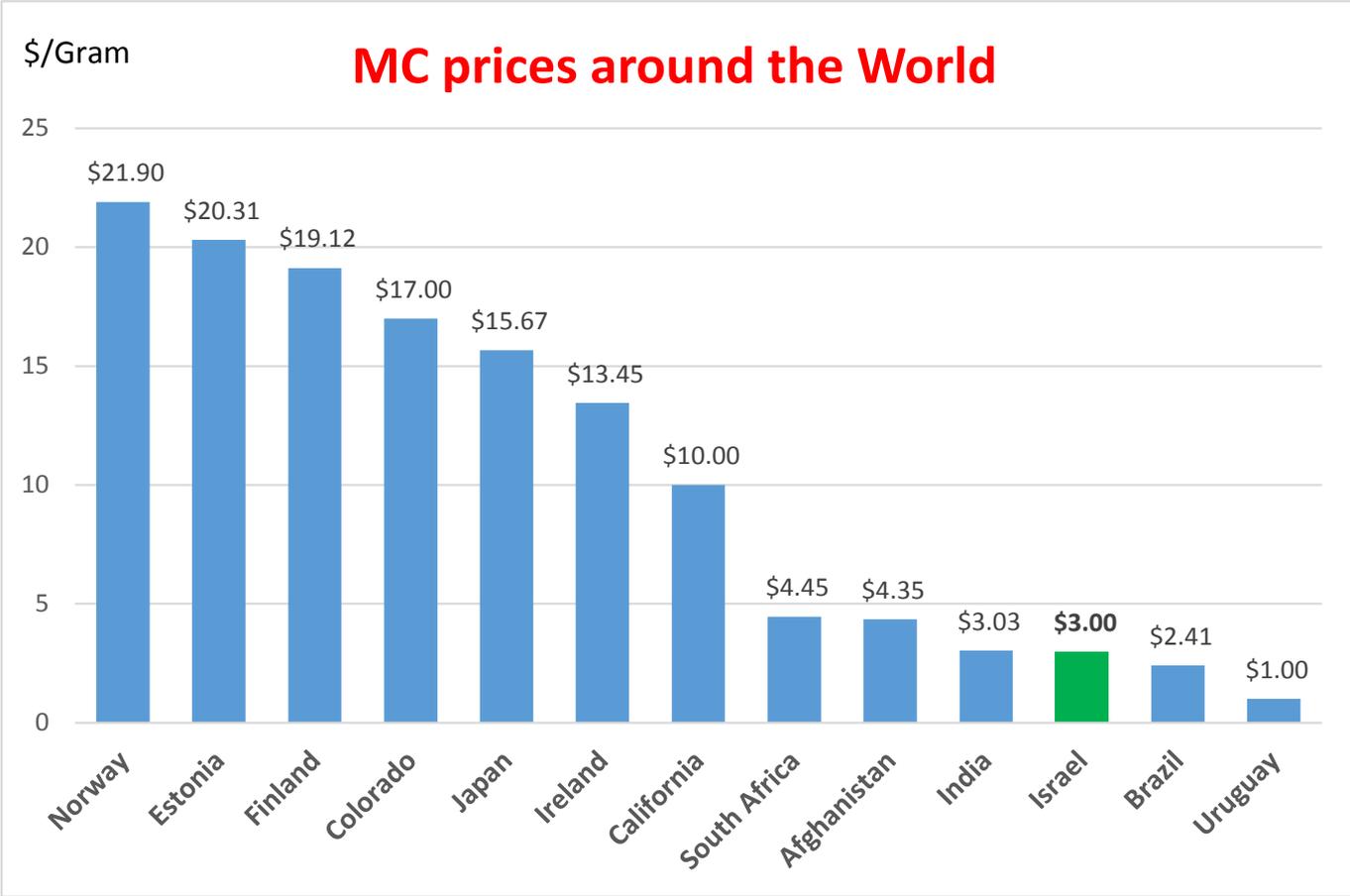
Medical Cannabis Structure

In the new MCO



Current MCO





Source: www.alternet.org, Sept. 2-15

Number of Growers and Supply of medical Cannabis

- Last July the Israeli medical Cannabis Agency (IMCA) came up with a bid to solicit medical cannabis growers.
- While the bid paper lists many rules and regulations it does not say anything about the number of growers and production quantities.
- Basically any grower who meets the requirements might be granted a growing license. This also includes the current licensed growers.
- Limited local market size, no export possibilities, lack of free market situation and missing production quotas, as in other agricultural products, will lead to excess supply that can not be marketed causing great losses to the growers and increasing pressure to sell such excess production outside the MC system.
- Since the other units are not forced to buy all the production, the possibility of price reduction will not likely reach the MC users.
- While a quota system is not ruled out, the new MCO does not recognize the fact that such a quota system requires a complete control of all prices in the value chain.
- This, of course, might have legal implications regarding the prevention of competition in the MC sector.
- The objection of the Ministry of Health to allow export of MC makes the system very vulnerable to the results of the excess capacity which already exist today with the current 8 legal growers.
- We estimate that the current potential of the MC production in Israel is about double the current consumption. The only reason for not having excess production is the user allocation systems which in effect is a quota system for the producers.

The export market

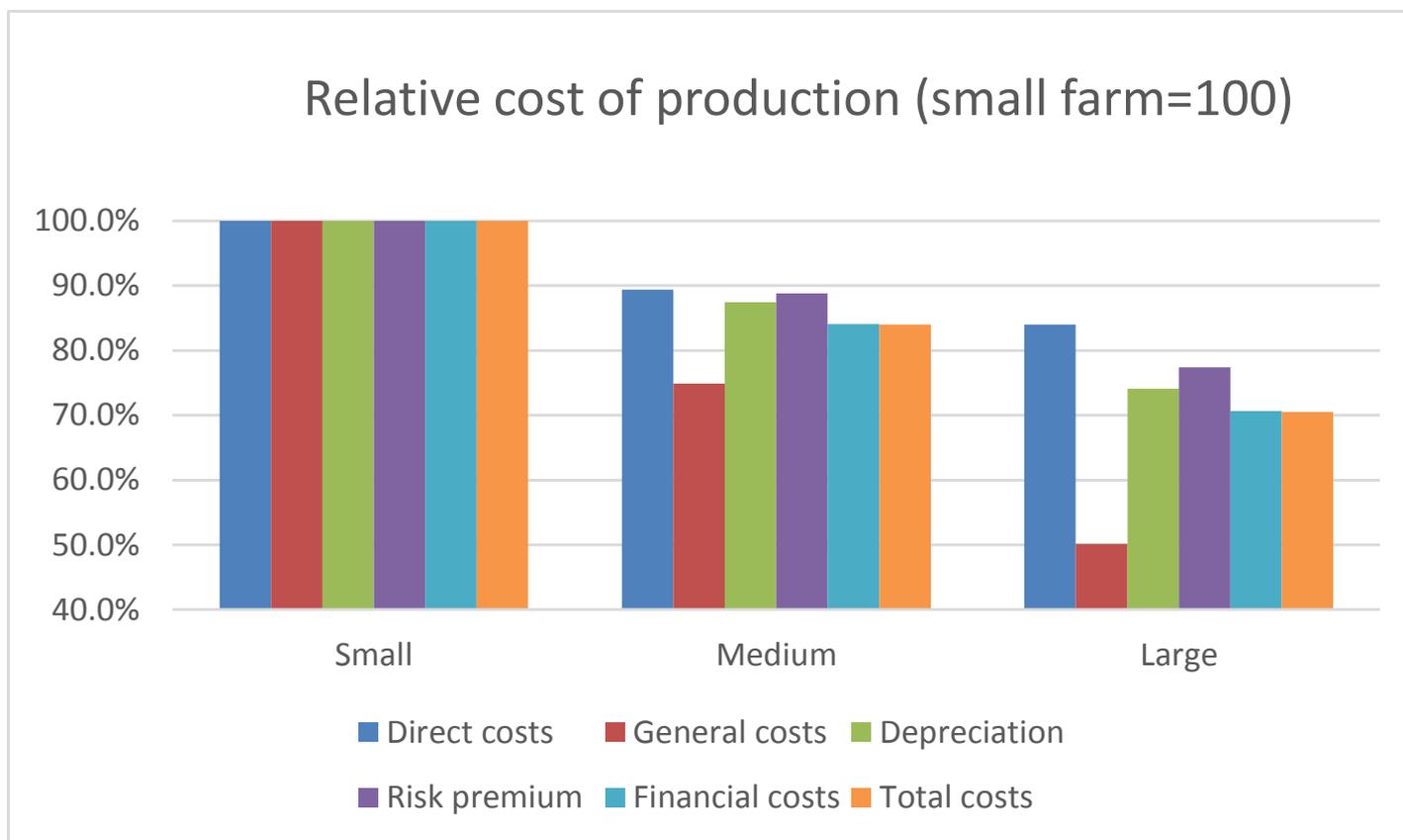
- While the IMCA wants to encourage more growers to enter the market, the **Ministry of Health is against exporting of MC**.
- This is despite the **requests from other countries** to purchase MC from Israel.
- Without the permit from IMCA such export transaction can not take place.
- In our previous work, we presented the fact that Israel has an absolute advantage in the production of MC.
- **Production costs on MC in Israel are about 30% lower** than many other countries, especially countries with a cold climate.
- A very favorable climate, the vast knowledge in production of MC, the fact that Israeli economy is export oriented, and the high capabilities of the Israeli growers all contribute to the cost of production being one of the lowest in the world.
- Opening the gate for MC **export will allow the increase in production, lowering production costs** and eventually lowering the MC cost to users in Israel.

Return to Scale and the new MCO

- It is well known that in modern agricultural production there is a very significant return-to-scale effect in the production.
- This is well recognized even by the Israeli Government which implemented a reform in the dairy and poultry sectors that promote larger production and more efficient production units.
- Actually the Government has subsidized dairy farmers who combined their operations into large dairy farm.
- But when it comes to the production of MC the Government is encouraging more producers to enter the given market. This in effect will reduce the scale of production and increase production costs.
- In production of MC there is a clear advantage to scale for the following reasons:
 - The high costs of security in security protection and security operations,
 - Larger production units allow for employment of higher skilled professionals,
 - Utilizing better services such as quality laboratories.

Relative cost of production

- Evaluation of medical cannabis on 3 different farm sizes (small= 0.1 Ha., Medium=0.25 Ha. and Large=0.8 Ha.) shows that the cost of production on a large farm is 30% lower than on a small farm.



Summary and conclusions

- The latest Governmental medical cannabis order (MCO) has some important parts especially making cannabis more easily available to the needed users.
- But the new medical cannabis order (MCO) is ignoring agricultural economic considerations,
- Such considerations leave some major issues unsolved which will create many obstacles in the implementation of the new MCO.
- It will be almost impossible to efficiently operate the proposed system without a major intervention of the Government in each unit of the system.
- Basic problems such as more units in the supply chain, exclusion of export, opening the production to new producers will lead to a significant increase in price, “leakage” of cannabis to non-medical markets and inefficient production.