LF programs involve mass drug administration (MDA) using Albendazole and Mebendezole. and testing using ICT cards. Typically, 80% of the population is targeted for mass screening, and of those, 85% eligible to receive treatment need to complete treatment to eradicate the parasite from the population. The treatment protocol is as follows:

Dosage Information:

|  |  |
| --- | --- |
| **DEC** |  |
| persons 2-5 years old | 100 mg |
| persons 6-14 years old | 200 mg |
| persons >14 years old | 300 mg |
| **Albendazole** | 400 mg per person |

DEC should **not** be given to:

1. Children less than 2 yrs of age
2. Pregnant and breastfeeding women

In Ye township, where this program is run, the clinic covers about 10 villages, which has a total target population of 6,754 people. In this area, about 18% of women are pregnant or breastfeeding. Additionally, this population data is known about Mon areas from EBRMS:

|  |  |
| --- | --- |
| **Age range (and gender, if applicable)** | **Population proportion** |
| < 2 | 3% |
| 2-5 | 6% |
| 6-14 | 22% |
| 15-49, female | 30% |
| 15-49, male | 25% |
| >50 | 14% |

Program guidelines recommend ordering 10% extra as a reserve, as well.

The following table lists the units and unit costs of DEC and albendazole:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item** | **Strength** | **Brand name of supplier** | **Issue Unit** | **Form** | **Unit cost (THB)** |
| DEC | 50mg | HiGrimm | 500 per bottle | Tablet | 1200 |
| Albendazole | 200mg | HiGrimm | 100 per bottle | Tablet | 200 |

1. (2 points) Assuming you want to order drugs for **ALL** eligible people, plus the recommended reserve, how many bottles of DEC and Albendazole do you need to order?

**Answer:** To solve this problem:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Age range (and gender, if applicable)** | **Population proportion** | **Actual number in Ye for planning (round up)** | **Amount of DEC needed, in 50mg tablets** | **Number of bottles to order, DEC** | **Amount of Albendazole needed, in 200 mg tablets** | **Number of bottles, Albendazole** |
| < 2 | 3% | N/A | N/A | ((812 + 5944 + 9972 + 10134 + 5676) x 1.1) / 500 =  72 bottles | N/A | ((812 + 2972 + 3324 + 3378 + 1892) x 1.1 / 100 = 137 bottles |
| 2-5 | 6% | 406 | 406 x 2 = 812 | 406 x 2 = 812 |
| 6-14 | 22% | 1486 | 1486 x 4 = 5944 | 1486 x 2 = 2972 |
| 15-49, female | 30% | (less 18% who are preg, etc.)  1662 | 1662 x 6 = 9972 | 1662 x 2 = 3324 |
| 15-49, male | 25% | 1689 | 1689 x 6 = 10134 | 1689 x 2 = 3378 |
| >50 | 14% | 946 | 946 x 6 = 5676 | 946 x 2 = 1892 |

1. (2 points) How much will this cost? (*ed: if they multiply correctly, that’s half credit even if estimate is wrong)*

**Answer:** (72 x 1200) + (137 x 200) = 86400 + 27400 = 113800 baht