

Storage Calculator Tool Instructions

The Storage Calculator Tool will allow providers to enter maximum stock levels of each vaccine by brand/presentation (vials or syringes), enter the size of the refrigerator and/or freezer used to store vaccines, and provide guidance on whether adequate storage space exists. The tool will also indicate what minimal storage capacity is required to store the amount of vaccine entered on the tool. The provider will need access to Microsoft Excel 2003 or newer to access this tool.

Important: The provider must remember that this tool is only an estimate of needed space and calculations are not exact and vary by refrigerator or freezer types.

Instructions:

When you open the file in Microsoft Excel you may receive a pop up message box with a 'caution sign'  and information on the macros used in the spreadsheet or that macros are enabled. Just click "OK" or "Enable Macros" to clear the message screen and advance to the form. The provider will only need to complete the sections that are in 'yellow'.

Upper Section

Example of Upper Section:

| | | | |
|---|------|--|--|
| | | #6 | Enter the percentage of "UNUSABLE" space you feel you have and/or need in your REFRIGERATOR |
| | | 60% | |
| <i>PLEASE do not include DORM style staging units within this worksheet</i> | #1 | Enter the cubic feet of the refrigerator or enter the total cubic feet for all refrigerators | #2 |
| | 16.7 | | Enter the percentage of refrigerator space used for Public Stock or you can leave it blank if 100% |
| If you wish to enter one refrigerator/freezer's cubic feet to the right but have more than one exact unit, Enter the number of identical units here | #3 | #4 | #5 |
| | 1 | 4.9 | 100% |
| | | | Enter the percentage of freezer space used for Public Stock |

- Begin by entering the cubic feet of your **refrigerator only** into the cell marked #1 (above example shows **16.7**). Most refrigerator/freezer units will have the cubic feet for each compartment identified separately. Often this information is found on the inside of the freezer door or in the instruction booklet, but not always. **Important:** When entering cubic feet, be sure to:
 - Include *only* the fresh food or refrigerator space available, not freezer space.
 - Subtract any space such as vegetable bins where no vaccine is stored.

Example:

| | | |
|---|-------|--|
| <i>PLEASE do not include DORM style staging units within this worksheet</i> | 16.70 | Enter the cubic feet of the refrigerator or enter the total cubic feet for all refrigerators |
|---|-------|--|

2. Enter the percent of space in this refrigerator available for public vaccine storage (TVFC/Adult Safety Net vaccines) in the cell marked #2 (above example shows **60%**). This example reflects that 40% of the refrigerator is used for privately purchased vaccine or other refrigerated medical supplies leaving only 60% of the space available for public vaccine.

Example:

| | |
|-----|--|
| 60% | Enter the percentage of refrigerator space used for Public Stock or you can leave it blank if 100% |
|-----|--|

3. If you have multiple identical units, you may enter the number of total identical units in the cell marked #3 (above example shows **1**). **Important:** In order to enter multiple units, you must have the same amount of space available in each unit for public vaccine.

Example:

| | |
|---|---|
| If you wish to enter one refrigerator/freezer's cubic feet to the right but have more than one exact unit, Enter the number of identical units here | 1 |
|---|---|

4. Enter the cubic feet of your freezer space in the cell marked #4 (above example shows **4.9**). Again be sure to only enter the freezer space, not any refrigerator space.

Example:

| | |
|------|--|
| 4.90 | Enter the cubic feet of the freezer or enter the total cubic feet for all freezers |
|------|--|

5. Enter the percent of freezer space available for public vaccine storage (TVFC/Adult Safety Net vaccines) in the cell marked #5 (above example shows **100%**).

Example:

| | |
|------|---|
| 100% | Enter the percentage of freezer space used for Public Stock |
|------|---|

6. Unusable space is pre-populated with 60% in cell marked #6. This cell is locked and providers must go to Tools/Protection to unprotect the sheet to change the amount. **Important:** This calculation may seem high, but it has been tested in clinic settings and found between 55%-65% is unusable space depending upon refrigerator styles. The calculation includes air space, space for some water bottles, and space to access open vaccine containers. You may choose to increase the amount to 65% if you require additional air space or working room; however, we recommend that you NOT decrease the percentage.

Example:

| | |
|-----|---|
| 60% | Enter the percentage of "UNUSABLE" space you feel you have and/or need in your REFRIGERATOR |
|-----|---|

Vaccine Section

Next to each **Vaccine** and **Brand Name/Trade Name** of your vaccine choices, enter your current **Maximum Stock Level (MSL)**. **Important:** **1.** If you store more vaccine than your MSL for special circumstances like back to school, you should record that amount of doses in the **Doses in excess of MSL** column. **2.** Be sure to include your pre-ordered amount of flu vaccine for the upcoming 2010-2011 flu season.

Example of “Maximum Stock Level (MSL) and “Doses in excess of MSL” columns:

| YACCINE | BRAND NAME / TRADE NAME | MANUFACTURER | PACKAGING | Maximum Stock Level (MSL) | Doses in excess of MSL |
|---------|-------------------------|----------------|------------------------|---------------------------|------------------------|
| DTAP | DAPTACEL® | Sanofi Pasteur | 10 pack - 1 dose vials | 0 | 0 |

Reading the Tool – Required Refrigerator Space

Adequate Storage:

Once you have completed the top and vaccine sections of the tool, scroll to the bottom for the results. If refrigerator space is adequate, the tool will display a green message: **"APPROXIMATE SPACE ESTIMATES APPEAR TO SHOW YOU MAY HAVE ROOM"**.

Example of Adequate Refrigerator Capacity Check

| Refrigerator Space Required | | | |
|--|--|---|---|
| <i>All numbers below are in cu feet</i> | | | |
| This is the size of my refrigerator space | This is the useable space in my refrigerator | This is the volume of vaccine I need to store based on above selections | This is the size of refrigerator I need to store my vaccine |
| 16.70 | 7.52 | 0.00 | 0.00 |
| Refrigerator Capacity Check | | | |
| APPROXIMATE SPACE ESTIMATES APPEAR TO SHOW YOU MAY HAVE ROOM | | | |

Inadequate Storage: If space is not adequate, the tool will display a red message: **"CAUTION - MAY NOT HAVE ADEQUATE SPACE"**. The tool will indicate the recommended size of unit to store the amount of vaccine identified. In this example, it shows 18.25 cu feet.

Important: At this point, it may be necessary to choose different presentations, i.e. vials versus syringes or contact your local health department or health service region to adjust your maximum stock levels.

Example of Inadequate Refrigerator Capacity Check

| Refrigerator Space Required | | | |
|---|--|---|---|
| <i>All numbers below are in cu feet</i> | | | |
| This is the size of my refrigerator space | This is the useable space in my refrigerator | This is the volume of vaccine I need to store based on above selections | This is the size of refrigerator I need to store my vaccine |
| 16.70 | 7.52 | 8.21 | 18.25 |
| Refrigerator Capacity Check | | | |
| CAUTION - MAY NOT HAVE ADEQUATE SPACE | | | |

Reading the Tool – Required Freezer Space

Adequate Storage:

Once you have completed the top and vaccine sections of the tool, scroll to the bottom for the results. If the freezer space is adequate, the tool will display a green message: **"Freezer Capacity Check – ADEQUATE"**

Example of Adequate Freezer Capacity Check

| PRIVATE SECTOR | | | |
|--------------------------------|---|---|--|
| \$0.00 | | | |
| Freezer Space Required | | | |
| <i>cubic feet</i> | | | |
| This is the size of my freezer | This is the useable space in my freezer | This is the volume of vaccine I need to store in my freezer | This is the size of freezer I need to store my vaccine |
| 4.60 | 3.07 | 0.00 | 0.00 |
| Freezer Capacity Check | | | |
| ADEQUATE | | | |

Inadequate Storage: If space is not adequate, the tool will display a red message: **"Freezer Capacity Check – INADEQUATE"**. The tool will indicate the recommended size of unit to store the amount of vaccine identified. In this example, it shows 7.65 cu feet.

At this point, it may be necessary to choose different presentations, i.e. vials versus syringes or contact your local health department or health service region to adjust your maximum stock levels

Example of Inadequate Freezer Capacity Check

| Freezer Space Required | | | |
|---------------------------------------|---|---|--|
| <i>cubic feet</i> | | | |
| This is the size of my freezer | This is the useable space in my freezer | This is the volume of vaccine I need to store in my freezer | This is the size of freezer I need to store my vaccine |
| 4.90 | 3.27 | 5.10 | 7.65 |
| Freezer Capacity Check | | | |
| CAUTION - MAY NOT HAVE ADEQUATE SPACE | | | |

Tips: Try different ways of organizing your vaccine while still allowing for airflow around the vaccine. Keep all vaccines away from the vent from the freezer where vaccine could get too cold. It is very important to have good airflow. If the cold air cannot flow to the lower shelves the vaccine on top could get too cold and the vaccine on the lower shelves too warm.