

Calculating Selling Area for Healthy Retail



Access to stores and markets that offer healthy food is vital to the health of any community, but low-income communities and communities of color suffer disproportionately from poor access to quality, nutritious food. Recognizing this, government officials, advocates and other stakeholders have been working across the United States to bring produce and staple foods to small corner stores and convenience stores that serve the hardest-hit communities.

Several of the healthy food retail programs operating across the country require stores to devote a certain percentage of “selling area” to produce and staple foods, and a similar requirement can be incorporated into a policy as a required condition. Calculating and measuring “selling area” is not an easy task, however. This fact sheet explains how to measure the total selling area of a store, both floor area and shelf space, as well as calculating the total percentage of selling area devoted to a particular type of product like produce or staple foods.

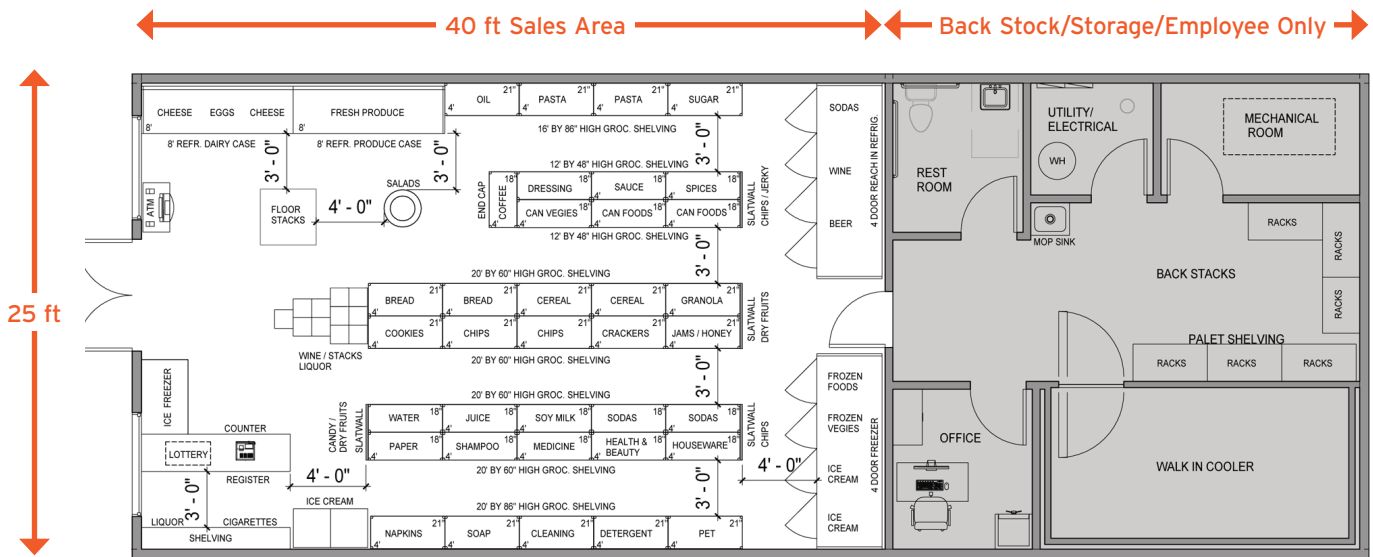
Step 1: Measuring Floor Area¹

The most straightforward way to determine how much of a store is dedicated to selling healthy food is by measuring floor area, which is the metric most commonly used by existing programs across the United States. This measurement works particularly well for broader categories of healthy products that tend to be grouped together in the store, such as produce.

Total Selling Area

First, we should be clear that we are looking at only the **selling area** of the store. This means, just the areas of the store where customers are allowed to find and purchase items. Don't include storage areas, staff break rooms, or restrooms in your measurement of selling area. Because many stores have unique layouts, measuring floor area may be more difficult than in the diagram below. However, the goal is to measure to total floor area as closely as possible. If a store owner does not maintain an accurate blueprint for the store, it will likely be necessary to create a rough schematic with the basic measurements in order to calculate floor area.

The diagram below shows only the selling area, not the storage or "staff only" areas for a model convenience store. The total selling area for a store is measured by floor area, and for this store would be 1,000 sqft.



Total Selling Area/Floor Area = 40 ft (length) × 25 ft (width) = 1,000 sqft

1 Base Diagram: www.categorymanagementblog.com/wp-content/uploads/Store-Layouts.png
Base Diagram Webpage: www.categorymanagementblog.com/category/planograms

Healthy Food Selling Area

To determine how much of the store's selling area is dedicated to healthy foods such as whole grains or fresh produce, we will measure the floor area dedicated to these foods. We recommend including aisles as part of this measurement, since the area where customers stand to look at their options is valuable space dedicated to selling the items on the shelf. Aisle area can be split with one half going to each shelf on either side of the aisle. The first step is to measure the total floor area of the store where the healthy items are located.

To find the total healthy floor area, measure the sections throughout the store where healthy foods are stocked and then add the areas together. For a program or policy that also incorporates shelf space in the calculation, this is the first step in measuring total selling area. Later in this fact sheet we will discuss how to account for sections of a store that contain both healthy and unhealthy items, such as the slatwall in the diagram that contains both candy and dry fruits.



The total floor area dedicated to healthy foods would be the sum (in square feet) of all the different floor area totals above. If you measure selling area only as floor area, then this sum would give you the percentage of selling area devoted to healthy foods:

| | Length (ft) | Width (ft) | Sqft |
|---|-------------|------------|-------------|
| Bread & Cereals | = 20 | × 3 | = 60 |
| Canned Fruits & Vegetables | = 12 | × 3 | = 36 |
| Salads | = 6 | × 5 | = 30 |
| Refrigerated Dairy Case | = 8 | × 4 | = 32 |
| Fresh Produce | = 8 | × 4 | = 32 |
| Dry Fruits Slatwall | = 3 | × 2 | = 6 |
| Unrefrigerated water, juice, milk | = 12 | × 3 | = 36 |
| Frozen case | = 10 | × 6 | = 60 |
| Total Healthy Selling Area (using only floor area) | | | 292 |

Percent Healthy Selling Area Using Only Floor Area = 292 sqft ÷ 1,000 sqft = 29.2%

Step 2: Measuring Shelf Space²

While floor area gives a good approximation of how much healthy food is in a store, it does not account for how much of a bread section is healthy. For example, shelves come in all different shapes and sizes, so measuring shelf space can be a tricky proposition. To make measurement simpler, we recommend using **linear shelf space** as a basis for measurement. This means we will only worry about how long a shelf is,

not how tall or deep. Food and drink products come in many shapes and sizes, but they all must take up a length of shelf space to be sold. Measurement will consist of accounting for all the shelving in the sections of the store with healthy products (such as the bread, canned foods, or refrigerator sections). Hanging products and bins should also be included in these measurements.

Shelves and Refrigeration or Freezer Cases



Total Linear Shelf Space (Frozen Foods) = 20 ft (length) × 6 (number of shelves) = 120 ft³

Healthy Food Linear Shelf Space (Frozen Foods) = 7 ft + 7 ft + 3 ft + 7 ft + 9 ft = 33 ft

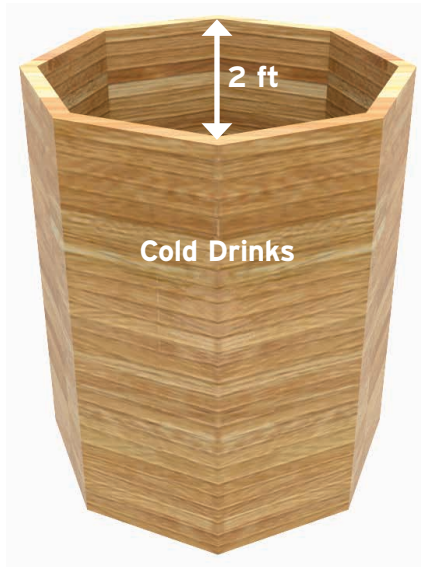
Percent Healthy Shelf Space (Frozen Foods or Dry Foods) = 33 ft ÷ 120 ft = 28%

2 Base image from: <http://optimalbizintel.com/images/easytouse.png>

3 Incorporating the height of the shelf complicates the calculation significantly. This calculation assumes a uniform shelf height of one foot.

Measuring a Circular Shelf or Bin

Circular shelves or bins should be measured along their outer edge (circumference), which is the equivalent of the linear shelf space of regular shelves. The easiest way to measure a circular shelf's circumference is to measure the diameter of the bin. The diameter is the length across the middle of the circle.



Once you measure the diameter, multiply it by 3.14 (also known as pi or π) to calculate the circumference.

$$\text{Total Bin} = 2 \text{ ft (diameter)} \times 3.14 \text{ (represents } \pi) = 6.3 \text{ ft}$$

Measuring Hanging Items

Items presented on a hanging display can be measured as if they were sitting on a shelf.

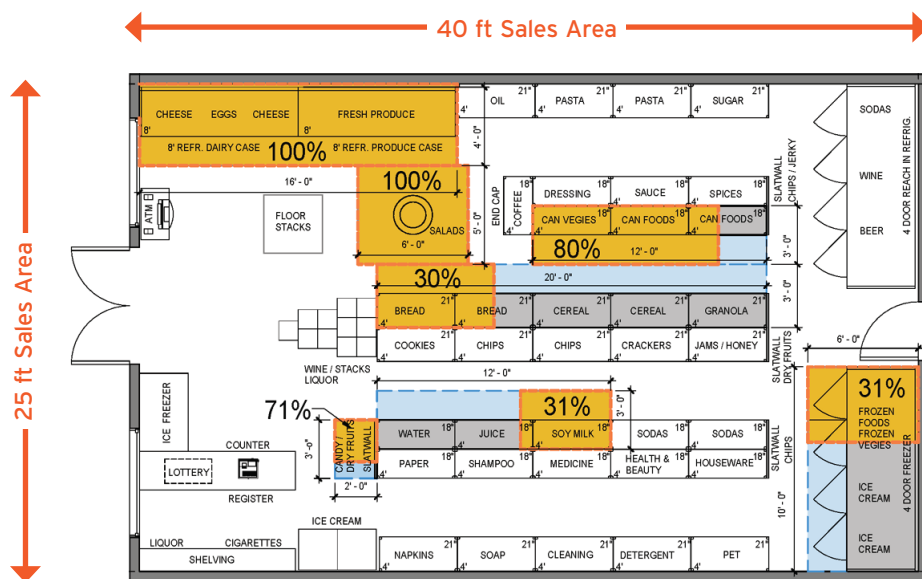


$$\text{Total Linear Shelf Space (hanging items)} = 5 \text{ ft (length)} \times 7 \text{ (number of shelves)} = 35 \text{ ft}$$

Step 3: Combining Shelf Space and Floor Area

Once you have calculated the amount of shelf space dedicated to healthy food in each section of the store, you can combine these numbers with your floor area measurements to get a clearer picture of how much healthy food is actually in the store. This is best done section by section. For each section of the store that contains healthy food measure the floor area (Step 1) and calculate the percentage of shelf space dedicated

to healthy food (Step 2). Then multiply the floor area of each section of the store by the percentage of shelf space dedicated to healthy foods in that section to get a refined floor area number that reflects the amount of healthy options in each section. Finally, add the new healthy floor areas together to find a total healthy floor area.



Note: Percentages indicated in yellow highlighted portions of diagram indicate the percentage of shelf space dedicated to healthy foods in each section of the store. The percentages used in the diagram are hypothetical for purposes of illustrating the calculation of total selling area. The actual percentages you will use will be the results of your in-store shelf measurements (Step 2).

Selling Area = floor area for each section (Step 1) × percentage of shelf space devoted to healthy food in that section (Step 2)

| | Floor Area Sqft | Healthy Shelf % | Sqft |
|-----------------------------------|-----------------|-----------------|------------|
| Refrigerated Dairy Case | = 32 | × 1 (100%) | = 32 |
| Fresh Produce | = 32 | × 1 (100%) | = 32 |
| Salads | = 30 | × 1 (100%) | = 30 |
| Bread & Cereals | = 60 | × .3 (30%) | = 18 |
| Canned Fruits & Vegetables | = 36 | × .8 (80%) | = 29 |
| Dry Fruits Slatwall | = 6 | × .71 (71%) | = 4 |
| Unrefrigerated water, juice, milk | = 36 | × .31 (31%) | = 11 |
| Frozen case | = 60 | × .31 (31%) | = 19 |
| Total Healthy Selling Area | | | 175 |

Total Percent Healthy Selling Area = 175 sqft ÷ 1,000 sqft = 17.5%



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Acknowledgments

Developed by Ian McLaughlin, Senior Staff Attorney and Program Director, and Angela Hadwin, Healthy Planning Fellow.

The authors would like to thank Sutti & Associates for creating the diagrams for this product.

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Support for this document was provided by a grant from the Robert Wood Johnson Foundation.