

# Tomato Consumption by Form and Its Relationship to Total Vegetable Intake in the US

Kristin Reimers<sup>1</sup> and Debra Keast<sup>2</sup>

<sup>1</sup>ConAgra Foods, 5 ConAgra Drive, Omaha NE 68102 and <sup>2</sup>Food & Nutrition Database Research, Inc., 1801 Shadywood Lane, Okemos MI 48864

## BACKGROUND

Despite public health efforts to decrease risk of cardiovascular disease by promoting healthier dietary patterns, Americans persistently under-consume vegetables. Discovering feasible, achievable strategies to increase vegetable intake can contribute to improved dietary patterns and health outcomes. Tomatoes are the most consumed non-starchy vegetable in the US and also contribute the greatest proportion of vegetables to the USDA Food Pattern (MyPlate). In spite of tomatoes' dietary importance, little is known about tomato consumption by form.

**Purpose:** To describe the amount of tomato, and the forms (raw or tomato products) in which they are consumed by adults in the U.S.

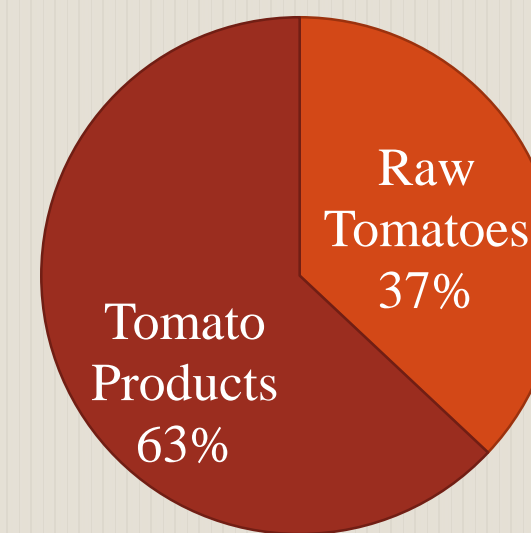
## METHODS AND MATERIALS

Using What We Eat in America diet survey of the National Health and Nutrition Examination Survey 2005-06, 2007-08, and 2009-10, tomato forms and amounts consumed by adults in the United States were determined by examining the intakes of those 19 years and older (n = 16,252). The forms of tomatoes in foods that participants reported consuming were divided into two categories: tomato products and raw. Foods containing tomato products were further divided into four subgroups: 1) canned tomatoes as main ingredient in recipes, 2) canned tomatoes as minor ingredient in recipes, 3) juice and 4) salad dressing/condiments. Participants were considered heavy consumers if they reported tomato intake  $\geq 0.65$  cup/d and typical if they reported 0.01 – 0.64 cup/d.

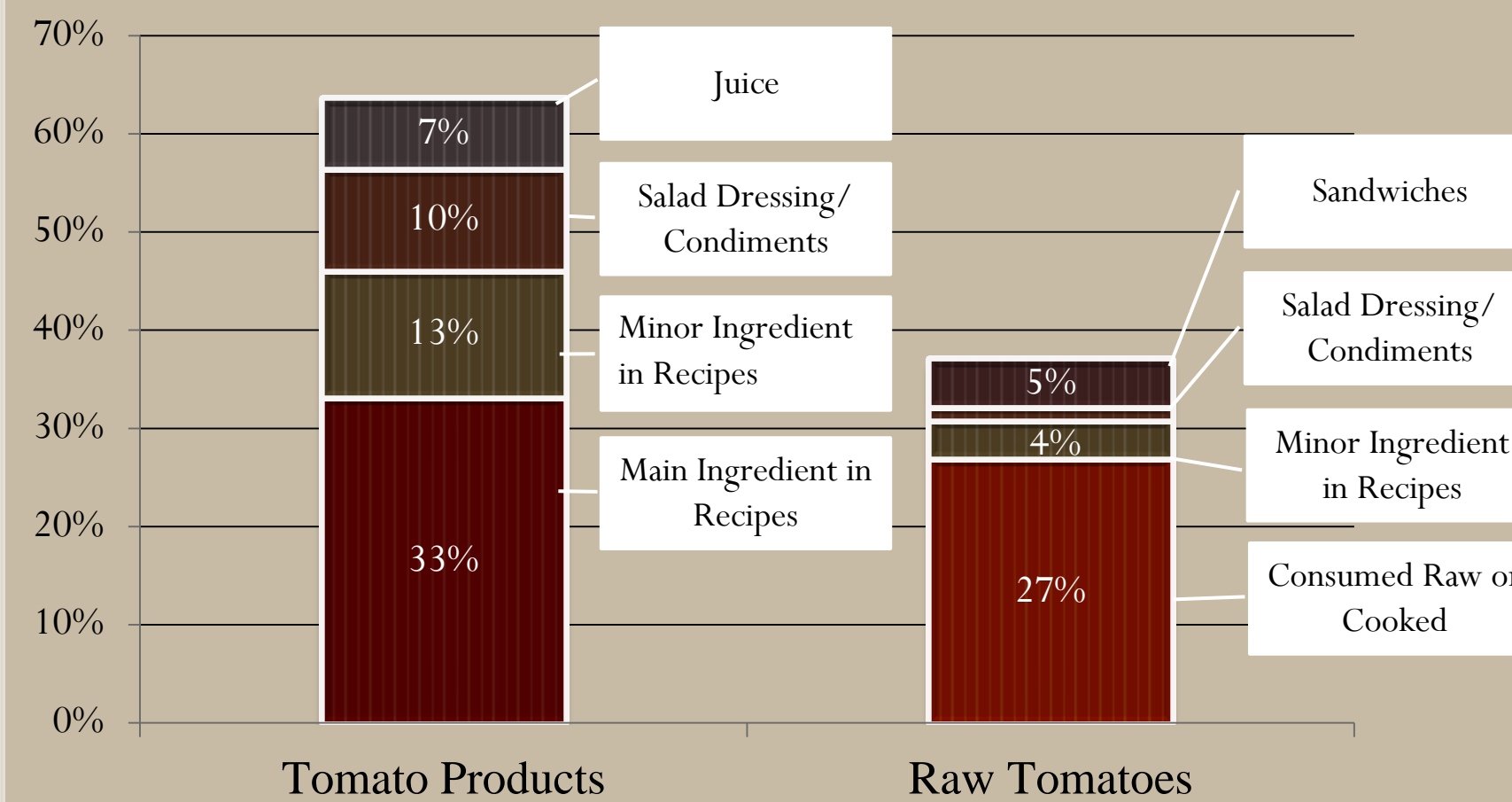
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## RESULTS

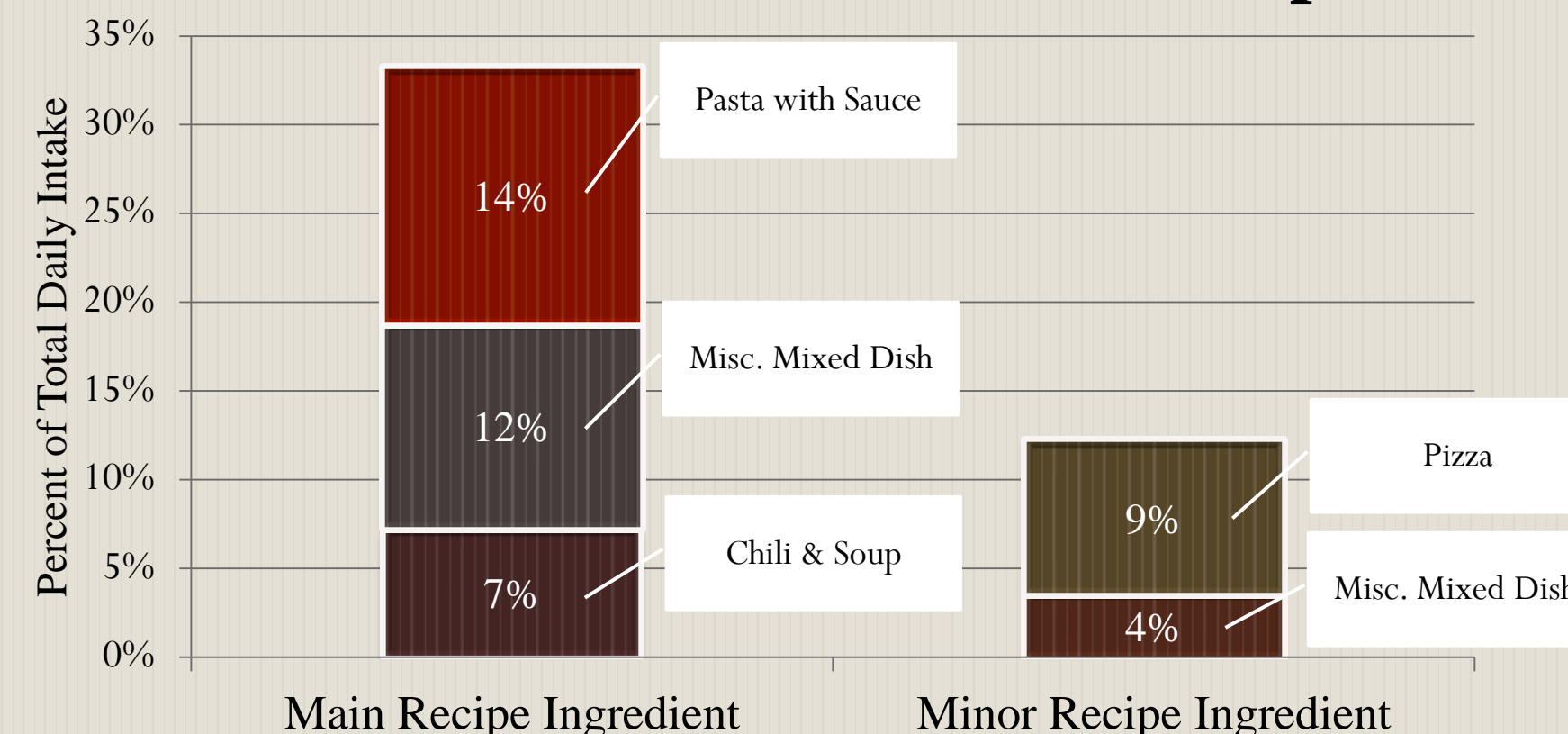
### Major Forms of Tomatoes Consumed by US Adults



### Tomato Consumption by Food Category

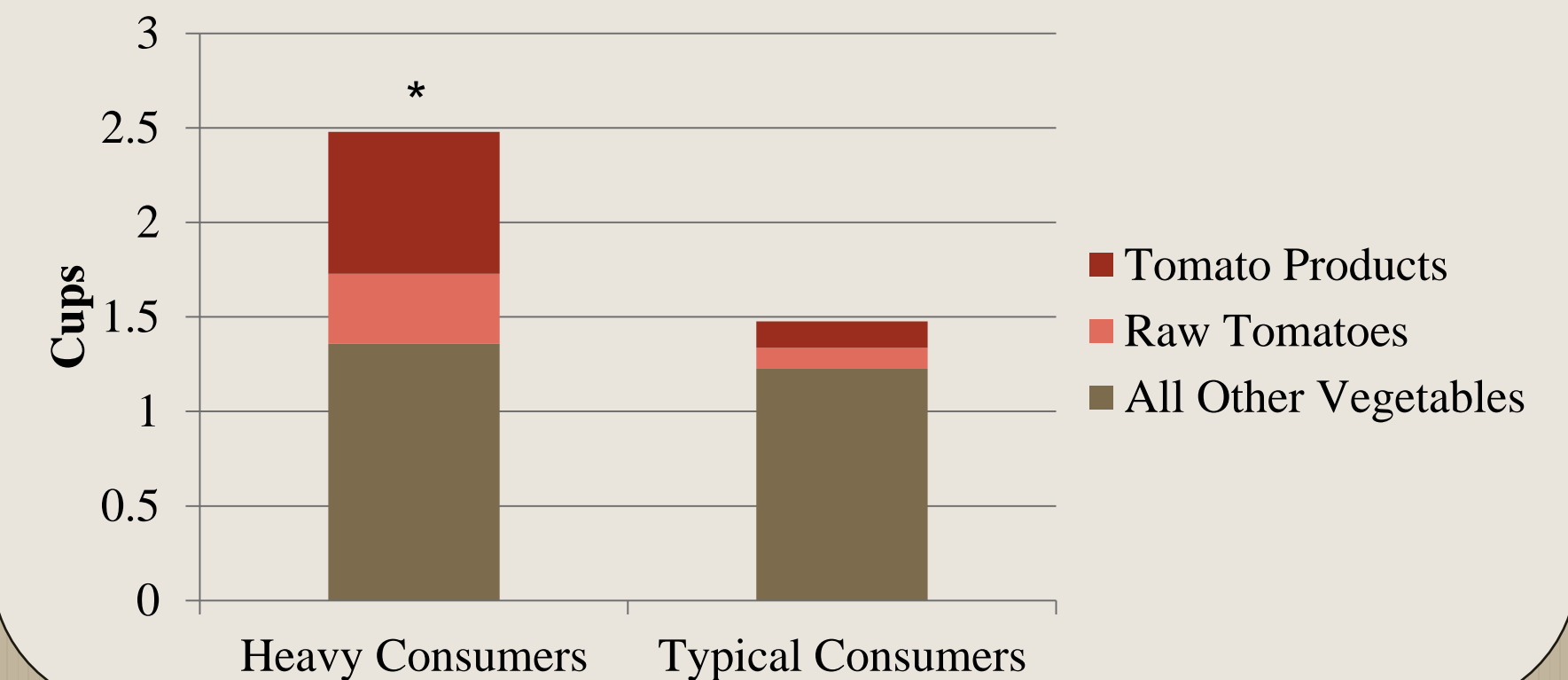


### Tomato Product Intake from Recipes



## RESULTS

### Tomato Intake of Heavy and Typical Consumers



\*The greater total vegetable consumption ( $p < 0.05$ ) was driven by the difference in tomato consumption.

## CONCLUSION AND IMPLICATIONS

The majority of tomato consumption was in the form of tomato products, and within tomato products, recipes with tomatoes as a main ingredient, such as pasta with sauce, was the largest category. Greater tomato intake positively related to eating more vegetables overall. Heavy tomato consumers achieved a total vegetable intake that approximated the MyPlate total vegetable target amount. Awareness of the relationships among tomato form, tomato intake and total vegetable intake can inform strategies to achieve greater vegetable intake and potentially improve dietary patterns for Americans.

## REFERENCES

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