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Factors Influencing Pulse Consumption in Canada

Final Report

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Growing Forward

Government of Alberta

This research was conducted by Ipsos Reid in partnership with Alberta Agriculture and Rural Development, with the direction and collaboration of Alberta Pulse Growers Commission and Pulse Canada.

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Agriculture and Rural Development

Alberta Pulse Growers

Pulse Canada

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EXECUTIVE SUMMARY

Between December 9th and 23rd, 2009, Ipsos Reid conducted a total of 1,100 online interviews with a representative sample of Canadians aged 18 and older, and 230 interviews with South Asian immigrants who have lived in Canada for 20 years or less. Additionally, Ipsos Reid conducted a total of four focus groups with Canadian adults – two in Edmonton on January 26th and two in Toronto on January 28th, 2010.

Pulse consumption among Canadians is low

- Overall, 20% indicate they have not consumed any type of pulse at home or at a restaurant during the past six months. The majority (60%) report they have consumed one or more types of pulses at home in the past six months – either one to three times per month or less than once a month. Just 20% report consuming at least one type of pulse on a weekly basis at home.
- Less than half (41%) have consumed any type of pulse at a restaurant in the past six months. Among restaurant pulse consumers, only one-quarter eat pulses at restaurants monthly or more often,
- The estimated average weekly cooked pulse consumption among Canadians who report having consumed pulses in the past six months is 1.3 cups and the median is 0.9. This drops to an average of 1.0 cups and a median of 0.6 cups when all Canadians are taken into account. The median provides the better estimation of pulse consumption among Canadians given the wide variation in reported consumption. *Please note, a number of estimations and assumptions were used in order to approximate average weekly cooked pulse consumption. This is by no means an accurate measure and should be considered a rough estimate only.*

Pulse consumption differs by type of pulse, with past six months consumption highest for beans and lowest for lentils

- One-in-five Canadians report they have not consumed any pulses in the past six months. Overall, two-in-three (66%) Canadian adults indicate they have consumed beans in the past six months. This drops to just over half with regard to chickpeas (53%) and peas (52%), while consumption of lentils is limited to four-in-ten (41%) Canadians
- Among those who have consumed pulses at home in the past six months, frequency of consumption does not vary markedly by type of pulse.

Pulse consumption varies by a number of socio-demographic and health factors.

- Pulse consumption tends to be lower among Canadians aged 18 to 34, higher among those with a university education, lower in single person households and higher among those not born and raised in Canada.
- There is a strong linkage between vegetarianism/ veganism and pulse consumption and a moderate linkage between chronic disease and pulse consumption, however, weight and pulse consumption have a weak linkage.

Not liking the taste or texture of pulses and not knowing how to cook or prepare pulses are the most frequent top-of-mind reasons for not eating pulses

- Interestingly, taste (or liking pulses) is also the most frequent reason given for eating pulses. The health benefits of pulses (healthy, a source of protein, a source of fibre) are also a key motivator for consumption.

On an aided basis, 'not thinking about including pulses in meal planning or preparation' and 'not knowing how to cook or prepare pulses' are the biggest limitations to consumption.

- 'Not liking the taste of pulses' and 'family members not liking to eat pulses' are barriers for a sizeable minority.
- It is notable that only one-third of Canadians agree that 'pulses are part of their traditional diet' or that they 'are trying to choose vegetarian meals more often'.

When asked to trade off the importance of a number of factors, health benefits and taste emerge as the two most important factors when deciding whether or not to eat pulses.

- Being a source of protein and increasing fibre intake are also important, though relatively lower on the scale. It is notable, however, that being a less expensive protein is not a top factor, nor are digestive considerations. Also, compared to the importance of protein and fibre, the low fat content of pulses is a relatively less important factor.

Communicating a number of facts related to personal health could increase the likelihood of pulse consumption among Canadians; environmental benefits, however, would have a lesser impact.

- Canadians' attitudes towards food and health indicate that the majority are concerned about maintaining their health – eating a healthy diet and weight control; and take actions to do so – look for healthy snacks, look at nutritional labels and exercise.
- Given the nutritional and health benefits of pulses, this is a positive for the pulse industry. So too is the finding that three-in-four Canadians 'like to try out new or different types of foods and recipes', and that about six-in-ten 'enjoy eating ethnic foods' traditionally high in pulses.
- It is interesting that the 'made/ grown in Canada label' is a consideration in food purchases for a strong majority of Canadians, while sustainable agricultural practices are comparatively less important.

While family is a key source for information about healthy eating and recipes, cookbooks, Canada's Food Guide, health professionals, grocery stores, newspapers, magazines and the Internet are all good channels for communicating with Canadians about pulses.

Segmentation analysis identified five distinct groups of consumers based on their attitudes towards pulses as well as food and health.

- Positioned at one end of the spectrum are the "Informed Champions" who embrace pulses and all their benefits, while at the opposite end are the "Disinterested Unreachables," a group who are unlikely to make pulses a regular part of their diet. The three segments in between – the "Unexposed Reachables," the "Forgetful Proponents" and the "Health Driven Persuadables" –

are the **most attractive segments to target** in terms of the potential to increase pulse consumption.

- Unexposed Reachables (23%): For Unexposed Reachables, pulses generally fall outside their consideration set with regards to meal planning or preparation. While they have not had a great deal of exposure to pulses, the health benefits of pulses resonate strongly. They should be a primary target segment as current consumption is low, but the main barrier is lack of exposure, and communicating information about the health benefits could effectively drive them to increase their pulse consumption. Teaching them how to cook a variety of 'great tasting' basic recipes (i.e. not ethnic or vegetarian options), and focusing on the health benefits of pulses – including weight management – should be the focus of targeted communications.
- Forgetful Proponents (23%): Forgetful Proponents have the second highest pulse consumption among the segments – they enjoy pulses, but need to be reminded to include them in their diet more often. Given that 70% of Forgetful Proponents are monthly (light) pulse consumers, there is an opportunity to move them to weekly (moderate to heavy) consumption, particularly given that the vast majority like the taste of pulses. Teaching them the wide variety of ways pulses can be used, and providing new and different recipes, could increase their pulse consumption. As they like to try out different foods and recipes, as well as enjoy ethnic foods, there are no limits to the types of recipes that might appeal. Weekly emails of pulse recipes could appeal to this segment. Reminding them about the fibre and protein content of pulses, as well as other health benefits, could also serve as motivators.
- Health Driven Persuadables (22%): The taste, health benefits and environmental benefits of pulses all appeal to Health Driven Persuadables – moving from light to moderate consumption would not be a big stretch. Given that the main barriers to greater consumption of pulses are not knowing how to cook or prepare them, and not thinking about them in meal planning, persuading consumers in this segment to increase their pulse consumption seems quite feasible. Particularly since they like trying new and different foods and recipes, they like ethnic foods, and many are trying to choose vegetarian meals more often. To offset their busy lifestyle, quick recipes or '5-ingredient' recipes might be particularly appealing. Teaching them how to cook pulses and providing a variety of recipes, along with communicating the health benefits of pulses, should be the primary focus when targeting this segment – with some mention of environmental benefits.

When developing messaging, advertising and communications targeting the Canadian public, it is important to keep the following in mind:

- **People don't know what pulses are.** Most people are not familiar with the term 'pulses' – it needs to be spelled out explicitly in any advertising or communications. Pictures of pulse dishes are not enough – people do not know enough to identify the 'pulse' among other ingredients. For example, in picture of a salad including beans, tomatoes, corn and cilantro, many Canadians would not be able to identify beans as the pulse. Perhaps the most effective tagline is simply 'beans, peas, lentils, chickpeas' in large enough font to be clearly seen.
- **Colourful, delicious looking dishes are a must.** Visually appealing pictures are key in any communications or messaging targeting the public – they will make people stop and take notice.
- **Variety is a well kept secret.** Even pulse consumers aren't aware of the tremendous variety of dishes that can be made with pulses, and the different varieties of pulses themselves. Quick &

easy recipes, ethnic recipes, child-friendly recipes and gourmet meals all have their appeal. Further, most pulse consumers tend to use pulses in side dishes (e.g. soup, salad, dips) rather than as a main part of their meals – elevate pulses from their side dish status.

- **The Internet is key.** A website address where consumers can find recipes should be a critical component for any advertising or communications. The Internet should be an essential part of any communications strategy.
- **High level nutritional and health benefits resonate the most strongly with consumers.** For example, live healthy, be heart healthy, packed with protein, high in fibre or low in saturated fat. People are skeptical of specific health benefits and research claims.
- **The environment should be a secondary focus.** While the environment is important to many, it should be a secondary message – preserving and protecting the environment is unlikely to drive people to increase their pulse consumption.
- **The 'grown in Canada' or 'locally grown' message, however, is meaningful**. This message does resonate with many and could influence purchase and consumption decisions.
- **Weight management is important to Canadians, but…** Information around pulse consumption and weight management definitely resonates with many consumers, however, it should not be the major focus of advertising or the key reason given for consuming pulses.
- **Communicating at the point of purchase could be effective.** In addition to the Internet and traditional media such as newspapers and magazines, distributing information alongside food displays (or tastings) could be a fruitful channel.

South Asian immigrants are a viable market for pulse products.

- Pulse consumption is very high.
- Pulse consumption does not decline significantly with tenure in Canada.
- Purchase and consumption of non-traditional forms and dishes (e.g. canned beans, lentil soup, hummus) increases with tenure.
- The facts that pulses are very high in fibre, free of fats and saturated fats, help reduce the risks of diabetes, have a low Glycemic Index and are gluten free, resonate strongly with South Asian immigrants, perhaps reflective of the finding that the incidence of diabetes is significantly higher than among Canadian adults.
- As with the broader Canadian public, South Asian immigrants' attitudes towards food and health indicate that the majority are concerned about maintaining their health and take actions to do so.
- Thus, messaging targeted at the broader public regarding the health benefits of pulses should also resonate with South Asian immigrants.
- The pulse industry may wish to further explore the appeal of processed and/or pre-prepared pulse products among this segment.

Summary of Key Findings

Background and Methodology

Apart from estimates of per capita consumption, there was a decided lack of publicly available information about pulse consumption in Canada. Information about the motivators and barriers to consuming pulses, and the influence of socio-demographic characteristics and health factors on pulse consumption was absent.

As such, Alberta Agriculture and Rural Development (ARD) wished to conduct quantitative and qualitative research to evaluate the factors influencing pulse consumption in Canada – that is, the *who*, *what*, *where* and *why* of Canadian pulse consumption. This project was carried out by Alberta Agriculture and Rural Development, with the direction and collaboration of Alberta Pulse Growers Commission and Pulse Canada.

Primary research objectives included:

- Evaluating the key factors that are influencing Canadians' pulse consumption with a focus on: types, frequency and form; motivators and barriers; and the influence of information.
- Providing information that can be used by industry associations and government to form targeted marketing and promotion material for producers, processors and health care professionals.

Given that South Asians are traditionally heavy consumers of pulses, and the large South Asian population in Canada, conducting research with this segment was a secondary research objective.

In order to realize the research objectives, Ipsos Reid utilized two distinct approaches:

1) Quantitative Research – Between December 9th and 23rd, 2009, Ipsos Reid conducted a total of 1,100 online interviews with a representative sample of Canadians aged 18 and older, and 230 interviews with South Asian immigrants who have lived in Canada for 20 years or less.
2) Qualitative Research – Ipsos Reid conducted a total of four focus groups with Canadian adults – two in Edmonton on January 26th and two in Toronto on January 28th, 2010. In each market, one focus group was conducted with light pulse consumers and non-consumers, and one focus group was conducted with a mix of light, moderate and heavy pulse consumers.

Types, Frequency and Form

Past six months pulse consumption is highest for beans and lowest for lentils. One-in-five Canadians report they have not consumed any pulses in the past six months.

- Overall, two-in-three (66%) Canadian adults indicate they have consumed beans – at home and/or at a restaurant – in the past six months. This drops to just over half with regard to chickpeas (53%) and peas (52%), while consumption of lentils is limited to four-in-ten (41%) Canadians. Four-in-ten (39%) Canadians' pulse consumption is limited to their home only, while 35% have consumed pulses both at home and at a restaurant, and 6% have consumed pulses at restaurants only – the remaining 20% have not consumed pulses at home or at a restaurant in the past six months.

Among those who have consumed pulses at home in the past six months, frequency of consumption does not vary markedly by type of pulse.

- Among consumers of each type of pulse, frequency of weekly consumption is highest for chickpeas (23%) and beans (21%), and slightly lower for lentils (17%) and peas (16%). On a monthly basis, frequency of consumption of beans is highest (68%), followed by chickpeas and lentils (both 62%) and then peas (57%).

Overall, 20% of Canadians were heavy to moderate consumers, meaning they report consuming at least one type of pulse on a weekly basis at home; 60% were light consumers, meaning they report consuming at least one type of pulse at home one to three times per month or less than once a month; and 20% were non-consumers, meaning they report they have not consumed any type of pulse at home or at a restaurant during the past six months.

Pulse consumption differs significantly by a number of socio-demographic factors.

- **Light** consumers are **older** than both non-consumers and moderate to heavy consumers.
- Pulse consumption **increases** with **university education**.
- One-quarter (27%) of **non-consumers live alone** (vs. 18% of light consumers and 15% of moderate to heavy consumers), while the majority (51%) of **light consumers** live in **two-person** households, and four-in-ten (39%) **moderate to heavy** consumers have **three or more** people in their household (vs. 30% of light consumers and non-consumers).
- Perhaps reflective of a smaller household size, **non-consumers** have **lower household incomes**.
- The percentage of respondents **born and raised** in Canada **decreases** significantly as pulse **consumption increases**. Among non-consumers, 94% were born and raised in Canada – this decreases to 86% among light consumers and 74% among moderate to heavy consumers.

Canned, dried and soups are the most common forms of pulses purchased for home consumption across all pulse types. Soup is by far the most frequent dish made with peas and lentils, while dishes made with beans and chickpeas are more diverse.

- For beans, canned whole beans (76%) are the clear leader when it comes to forms purchased. Other frequently purchased forms include dried (54%) and soups (45%), followed by dips or spreads (29%). Curries, chili or stews (68%) and soups (57%) are the most common dishes made, while salads (30%), dishes with refried beans (29%) , hot rice dishes (24%) and dips, spreads or salsas (23%) are mentioned by one-quarter or more bean consumers.
- Dried (65%) or soups (59%) are the predominant forms of purchase for peas, while soups (82%) are by far the most common dishes consumed. About one-quarter (26%) also make main dishes or casseroles, or curries, chili or stews with dried beans at home.
- Seven-in-ten (69%) lentil consumers purchase lentils dried, while 46% purchase them as soups and 43% canned. Similar to peas, soups (82%) are the most common dishes consumed. Curries, chili or stews (33%), main dishes such as casseroles (29%) and salads (26%) are also eaten by more than one-quarter of lentil consumers.

- The increasing popularity of hummus seems to be a major contributor to chickpea consumption. Canned chickpeas (70%) are the most common form of purchase, followed by dips or spreads (51%), and then dried (29%) and soups (24%). The most common dishes made with chickpeas are quite different than for other pulses – fully one-half (50%) of consumers make hummus or other dips, followed closely by salads (44%). As with other pulses, soups (38%) and curries, chili or stews (33%) are also relatively common dishes.

The purchase of pulses at specialty stores or ethnic groceries is quite low, while traditional grocery stores or supermarkets are the predominant choice.

- Nine-in-ten pulse (91%) consumers purchase the pulses they buy at home at a regular grocery store or supermarket, while 14% purchase them at specialty stores and just 9% purchase pulses at ethnic grocery stores.

Pulse consumption at restaurants does not vary markedly by restaurant type.

- Weekly consumption at restaurants is low, with fast food leading the way at 7% followed by ethnic and non-ethnic restaurants at 4%. Monthly pulse consumption at restaurants stands at 27% for both fast food and ethnic restaurants, and is slightly lower (23%) at non-ethnic restaurants.
- A variety of types of dishes made with pulses are consumed at restaurants with soup (64%) leading the way, followed by appetizers (52%), salads (45%) and main courses (43%). Consumption of bread products (13%) and desserts (4%) made with pulses is limited.

The <u>estimated</u> average weekly cooked pulse consumption among Canadians who report having consumed pulses in the past six months is 1.3 cups and the median is 0.9. This drops to an average of 1.0 cups and a median of 0.6 cups when <u>all Canadians</u> are taken into account.

- The median provides the better estimation of pulse consumption among Canadians given the wide variation in reported consumption.
- A number of estimations and assumptions were used in order to approximate average weekly cooked pulse consumption. This is by no means an accurate measure and was calculated in order to provide a rough estimate and compare pulse consumption between different segments.

There is a strong linkage between vegetarianism/ veganism and pulse consumption and a moderate linkage between chronic disease and pulse consumption. Weight and pulse consumption, however, are only weakly linked with similar consumption reported among both average weight and overweight individuals.

- As one might expect, pulse consumption is markedly higher among respondents with a vegetarian or vegan in the household. Consumption of all types of pulses is significantly higher both at home and at restaurants. Further, unlike the broader public, past six months consumption of the different types of pulses does not vary markedly.
- Consumption of beans, peas and lentils, but not chickpeas, is significantly higher among Canadians who have a household member with heart disease or high blood cholesterol, or diabetes. The relationship between these chronic conditions and pulse consumption, however, is not as strong as in the case of vegetarianism/ veganism.

Motivators and Barriers

A general dislike of pulses is the main reason given by non-consumers for not eating pulses, while, top-of-mind, light consumers provide a variety of reasons for not eating pulses more often.

- When non-consumers were asked to cite the main reasons why they do not eat pulses, a simple "I don't like them" was by far the most frequent response (43%), while 11% specifically said "I don't like the flavour or taste." Not knowing how to cook pulses/ never having tried to cook them, and pulses not being part of their usual meals/ not a habit, also emerged as barriers.
- The most frequent reasons given by 'light consumers' for not consuming pulses more often are not liking pulses (I/ my family do not like them – 12% and I/ my family do not like the taste – 8%), convenience (16%), not knowing how to cook pulses (13%), not considering pulses as part of their diet (10%), and seeking variety in their diet (10%).

On an unaided basis, taste – that is, liking the taste – and health benefits are the top two reasons given by pulse consumers for eating pulses.

- When asked for reasons why they eat pulses, the top two responses given by Canadian pulse consumers are "tastes good/ I like them" (36%) and "healthy/ good for you" (34%). Specific health or dietary benefits such as "source of protein" (12%) and "source of fibre" (12%) are also cited, as is the use of pulses for specific recipes ("part of recipe" – 10%, "good for soups/ stews" – 8%, "good for chili/ dips" – 6%).

Canadians have generally positive attitudes towards pulses – most people like them and recognize their nutritional benefits.

- Not thinking about including pulses in meal planning or preparation (58%) and not knowing how to cook or prepare pulses (43%) are perhaps the biggest limitations to consumption, while not liking the taste of pulses (21%, plus 11% not applicable or don't know) and family members not liking to eat pulses (32%, plus 7% don't know) are barriers for a sizeable minority.
- It is notable that only one-third of Canadians agree that pulses are part of their traditional diet (33%) or that they are trying to choose vegetarian meals more often (32%).

When asked to trade off the importance of a number of factors, health benefits and taste emerge as the two most important factors when deciding whether or not to eat pulses.

- Being a source of protein and increasing fibre intake are also important, though relatively lower on the scale. It is notable, however, that being a less expensive protein is not a top factor, nor are digestive considerations. Choosing vegetarian foods more often and being part of a traditional diet are rated as the two least important factors when deciding whether or not to eat pulses.
- While health benefits and taste are important factors across the board, interesting differences emerge when the data are analyzed by consumption level. For non-consumers of pulses, taste is the single most important decision factor regarding the consumption of pulses, with health benefits a distant second, and convenience or ease of preparation and being a source of protein tied for third. In contrast, among light consumers, health benefits are the most important factor, while being a source of protein, taste and increasing fibre intake in the next tier of factors. For

moderate to heavy consumers, both health benefits and taste are key decision factors, with being a source of protein and increasing fibre intake also important but relatively lower on the scale.

- It is notable, that compared to the importance of protein and fibre, the low fat content of pulses is a relatively less important factor.

High fibre and being a source of protein are stronger factors than low fat content, with regard to nutritional factors contributing to the selection of a processed food product containing pulses.

- It is notable that 'low in sodium' is not a significant influence, and that very few respondents allocate points to folate. Given that gluten free is a niche market, it is not surprising it receives the lowest number of points.

Communicating a number of facts related to personal health could increase the likelihood of pulse consumption among Canadians; environmental benefits, however, would have a lesser impact.

Canadians' attitudes towards food and health indicate that the majority are concerned about maintaining their health (i.e. eating a healthy diet and weight control), and take actions to do so (i.e. look for healthy snacks, look at nutritional labels and exercise).

- Given the nutritional and health benefits of pulses, this is a positive for the pulse industry. So too is the finding that three-in-four Canadians like to try out new or different types of foods and recipes, and that about six-in-ten enjoy eating ethnic foods traditionally high in pulses.
- It is interesting that the 'made/ grown in Canada label' is a consideration in food purchases for a strong majority of Canadians, while sustainable agricultural practices are comparatively less important.

Information Sources

Canadians get information about healthy eating from a variety of sources.

- The most frequent sources selected were nutrition or food labels (56%), cookbooks (46%), friends, family or colleagues (45%), Canada's Food Guide (39%) and health professionals (38%). Grocery stores (32%) and newspapers (27%) are also selected by more than one-in-four respondents, while mentions of other traditional media are comparatively lower.

Cookbooks are the most frequently selected information source for getting information about preparing pulses.

- Cookbooks (57%) are followed by family (28%), friends or colleagues (27%) and personal experience (26%). Grocery stores (18%) and websites (15%) are only other channels selected by more than one-in-ten respondents.
- When focus group participants were asked where they got recipes in general, cookbooks and family were also frequent mentions, with family (particularly mothers) being a key source of information. Many also mentioned magazines and newspapers as sources for recipes. A few mentioned they watched food shows on television, and that they would seek out interesting recipes they saw online.
- When asked where they would go to find new recipes, family again emerged as a key 'trusted' resource. Apart from family, the Internet was the clear choice. It is notable that the use of Google, rather than specific recipe or food websites, is the predominant means of looking up recipes.

Market Segmentation

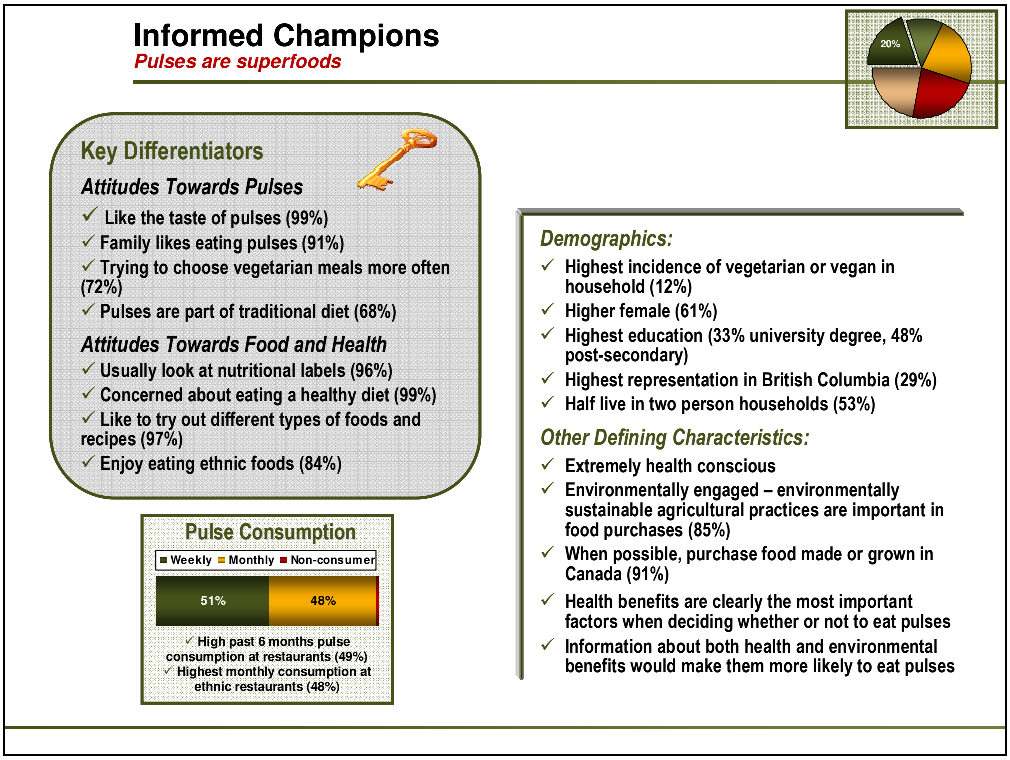
Segmentation seeks to identify homogeneous groups of consumers to effectively target via marketing – this can include product development, pricing, distribution and/or promotion. Once like-minded, or attitudinally similar, people are found these are grouped in segments and then the behavioural and demographic differences are analyzed in order to profile them and 'see' them in an everyday life context.

The pulse segmentation utilized a statistical technique called K-means. This is the most traditional technique and is useful for attitudinal segmentations where there are very distinct segments of approximately equal size. The segmentation solution was based on responses to a total of 21 attitudinal statements.

Ipsos Reid studied a number of possible segment solutions, and looked at the main drivers of the segments as well as how each solution is reflected in the other. The segment solution that presented the most 'logical' way of looking at this market was the one chosen, in this case, a five-segment solution.

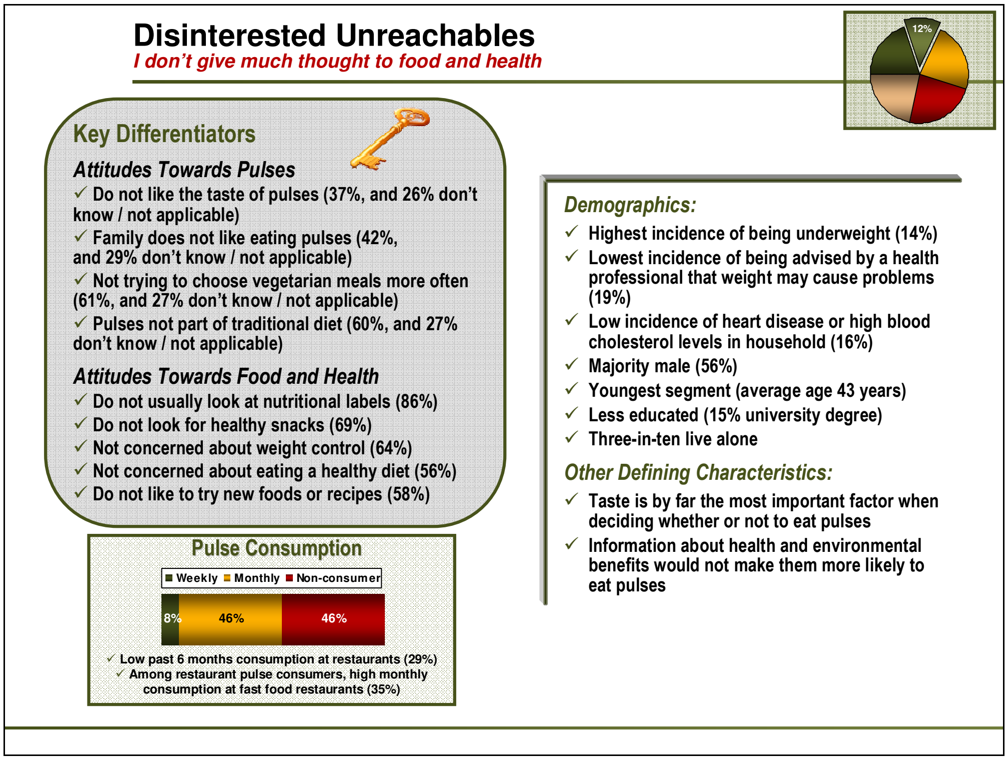
Informed Champions (20%)

Informed Champions embrace virtually all aspects of pulses from taste, to health benefits to environmental benefits. Given their already high levels of pulse consumption and positive attitudes towards pulses, food and health Informed Champions are not a key target for marketing efforts. That being said, it is likely that messages targeting other segments will reach Informed Champions and will resonate strongly.



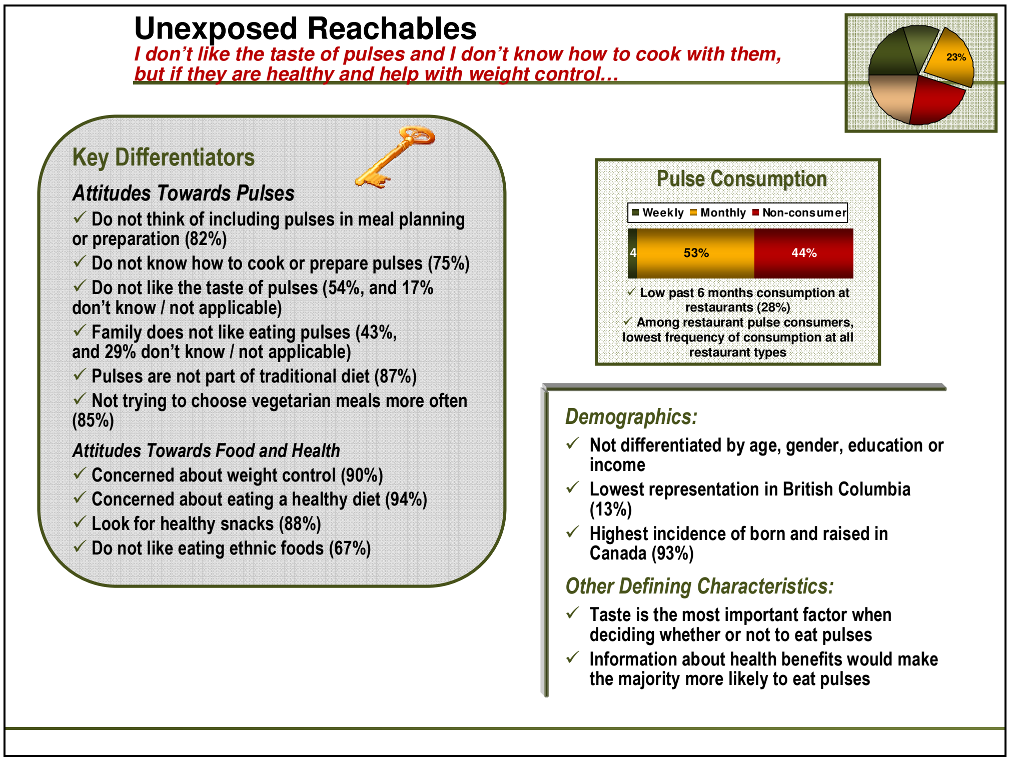
Disinterested Unreachables (12%)

Disinterested Unreachables are disengaged when it comes to food and health. They are not an attractive segment to target. As a group, very little would convince them to incorporate pulses in their diet; communicating recipe ideas, health benefits or environmental benefits are all unlikely to have an impact.



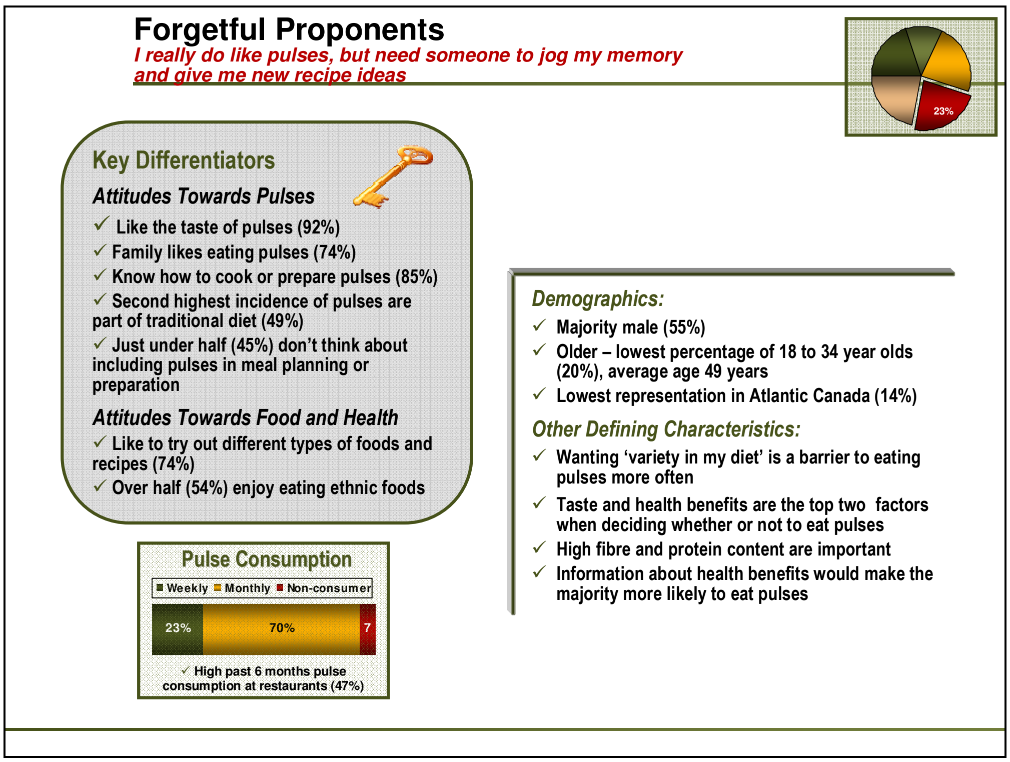
Unexposed Reachables (23%)

For Unexposed Reachables, pulses generally fall outside their consideration set. While they have not had a great deal of exposure to pulses, the health benefits of pulses resonate strongly. They should be a primary target segment as current consumption is low, but the main barrier is lack of exposure, and communicating information about the health benefits could effectively drive them to increase their pulse consumption. Teaching them how to cook a variety of 'great tasting' basic recipes (i.e. not ethnic or vegetarian options), and focusing on the health benefits of pulses – including weight management – should be the focus of targeted communications.



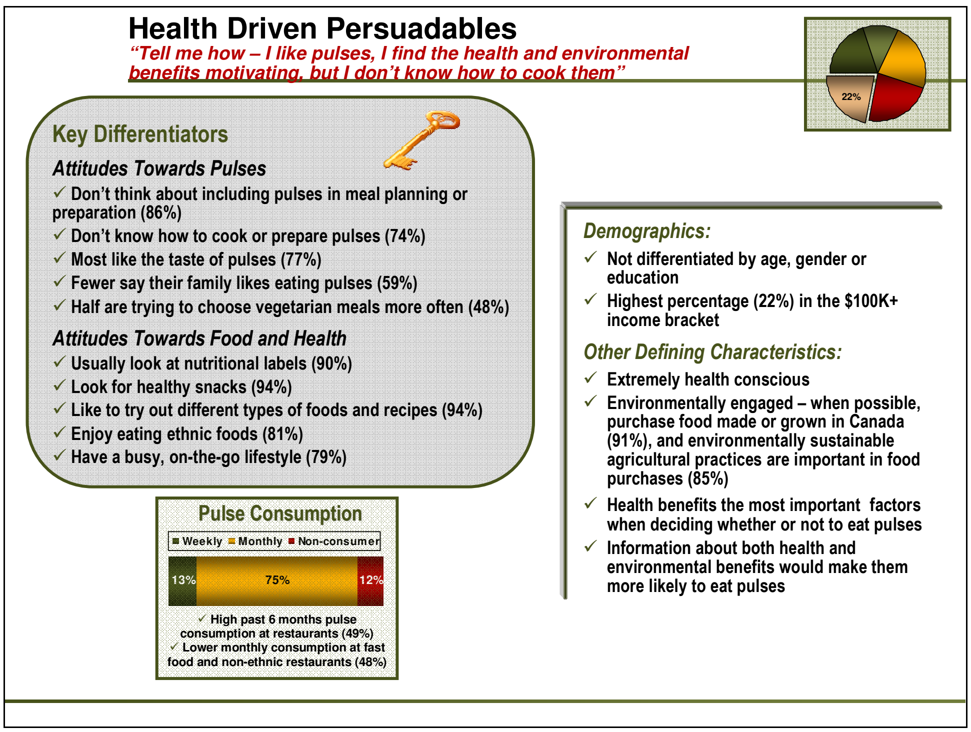
Forgetful Proponents (23%)

Forgetful proponents have the second highest pulse consumption among the segments – they enjoy pulses, but need to be reminded to include them in their diet more often. Given that 70% of Forgetful Proponents are monthly (light) pulse consumers, there is an opportunity to move them to weekly (moderate to heavy) consumption, particularly given that the vast majority like pulses. Teaching them the wide variety of ways pulses can be used, and providing new and different recipes, could increase their pulse consumption. As they like to try out different foods and recipes, as well as enjoy ethnic foods, there are no limits to the types of recipes that might appeal. Weekly emails of pulse recipes could appeal to this segment. Reminding them about the fibre and protein content of pulses, as well as other health benefits, could also serve as motivators.



Health Driven Persuadables (22%)

The taste, health benefits and environmental benefits of pulses all appeal to Health Driven Persuadables – moving from light to moderate consumption would not be a big stretch. Given that the main barriers to greater consumption of pulses are not knowing how to cook or prepare them, and not thinking about them in meal planning, persuading consumers in this segment to increase their pulse consumption seems quite feasible. Particularly since they like trying new and different foods and recipes, they like ethnic foods, and many are trying to choose vegetarian meals more often. To offset their busy lifestyle, quick recipes or '5-ingredient' recipes might be particularly appealing. Teaching them how to cook pulses and providing a variety of recipes, along with communicating the health benefits of pulses, should be the primary focus when targeting this segment – with some mention of environmental benefits.



Segmentation Summary

Segment Name & Size	Informed Champions (20%)	Disinterested Unreachables (12%)	Unexpoed Reachables (23%)	Forgetful Proponents (23%)	Health Driven Persuadables (22%)
Motto	*"Pulses are superfoods"*	*"I don't give much thought to food and health"*	*"I don't like the taste and I don't know how to cook them, but if they are healthy and help with weight control…"*	*"I really like pulses, but need someone to jog my memory and give me new recipe ideas"*	*"Tell me how! I like pulses, I find the health and enviro benefits motivating, but I don't know how to cook them"*
Pulse Consumption	• 51% weekly consumers & 48% monthly consumers • Highest frequency of monthly consumption at ethnic restaurants	• 46% non-consumers & 46% monthly consumers • Among restaurant consumers, high consumption at fast food restaurants (35%)	• 44% non-consumers & 53% monthly consumers • Among restaurant consumers, lowest frequency of consumption	• 70% monthly consumers & 23% weekly consumers • High past 6 months consumption at restaurants (47%)	• 75% monthly consumers & 13% weekly consumers • Lower frequency of consumption at fast food and non-ethnic restaurants
Attitudes Towards Pulses	• Like the taste (99% • Family likes eating pulses (91%) • Trying to choose vegetarian meals more often (72%) • Pulses are part of traditional diet (68%)	• Don't like the taste of pulses (37%; 26% DK/NA) • Family doesn't like eating pulses (42%; 29% DK/NA) • Not trying to choose vegetarian meals more often (61%; 27% DK/NA) • Not part of traditional diet (60%; 27% DK/NA)	• Don't think of including in meal planning (82%) • Don't know how to cook or prepare (75%) • Don't like the taste (54%; 17% DK/NA) • Family doesn't like eating pulses (43%; 29% DK/NA) • Not part of traditional diet (87%) • Not trying to choose vegetarian meals (85%)	• Like the taste (92%) • Family likes eating pulses (74%) • Know how to cook or prepare pulses (85%) • Half say pulses are part of traditional diet (49%) • Just under half (45%) don't think about including pulses in meal planning or preparation	• Don't think of including in meal planning (86%) • Don't know how to cook or prepare (74%) • Most like the taste (77%) • Fewer say their family likes eating pulses (59%) • Half are trying to choose vegetarian meals more often (48%)
Profile	• Highest incidence of vegetarian or vegan in household (12%) • Higher female (61%) • Highest education (33% university degree, 48% post-secondary) • Highest in British Columbia (29%) • Half live in two person households (53%)	• Highest percentage of underweight (14%) • Low incidence of heart disease or high blood cholesterol levels in household (16%) • Majority male (56%) • Youngest segment (average age 43 years) • Less educated (15% university degree) • Three-in-ten live alone	• Not differentiated by age, gender, education or income • Lowest in British Columbia (13%) • Highest incidence of born and raised in Canada (93%)	• Majority male (55%) • Older – lowest percentage of 18 to 34 year olds (20%), average age 49 years • Lowest in Atlantic Canada (14%)	• Not differentiated by age, gender or education • Highest percentage (22%) in the $100K+ income bracket
Messaging and Marketing	• Highest consumption – no need to target directly • Messages targeting other segments will resonate	• Low opportunity segment • Recipe ideas, health benefits and environmental benefits unlikely to have any impact	• Best opportunity for converting non-consumers • Provide a variety of 'great tasting' basic recipes for pulses • Focus on the health benefits of pulses, including weight control	• Opportunity to move from monthly to weekly • Provide new and different recipes – teach them the wide variety of ways they can be used • Remind about the fibre and protein content as well as other health benefits	• Opportunity to move from monthly to weekly • Teach them how to cook pulses • Provide a variety of quick, easy to prepare recipes including vegetarian and ethnic • Primary focus health; secondary environment

Segment Name & Size	**Informed Champions (20%)**	**Disinterested Unreachables (12%)**	**Unexposed Reachables (23%)**	**Forgetful Proponents (23%)**	**Health Driven Persuadables (22%)**
Attitudes Towards Food and Health	• Usually look at nutritional labels (96%) • Concerned about eating a healthy diet (99%) • Like to try out different types of foods and recipes (97%) • Enjoy eating ethnic foods (84%)	• Do not usually look at nutritional labels (86%) •Do not look for healthy snacks (69%) •Not concerned about weight control (64%) •Not concerned about eating a healthy diet (56%) • Do not like to try new foods or recipes (58%)	• Concerned about weight control (90%) • Concerned about eating a healthy diet (94%) • Look for healthy snacks (88%) • Do not like eating ethnic foods (67%)	• Like to try out different types of foods and recipes (74%) • Over half (54%) enjoy eating ethnic foods	• Usually look at nutritional labels (90%) • Look for healthy snacks (94%) • Like to try out different types of foods and recipes (94%) • Enjoy eating ethnic foods (81%) • Busy, on-the-go lifestyle (79%)
Other Defining Characteristics	• Extremely health conscious • Environmentally engaged and when possible, buy food grown in Canada • Health benefits clearly the most important factors when deciding whether or not to eat pulses • Info about both health and environmental benefits would have a positive impact on consumption	• Taste is by far the most important factor when deciding whether or not to eat pulses • Info about health and environmental benefits would not make most more likely to eat pulses	• Taste is the most important factor when deciding whether or not to eat pulses • Info about health benefits would make the majority more likely to eat pulses	• Wanting 'variety in my diet' is a barrier to eating pulses more often • Taste and health benefits are the top two factors when deciding whether to eat pulses • High fibre and protein content are important • Info about health benefits would make the majority more likely to eat pulses	• Extremely health conscious • Environmentally engaged and when possible, buy food grown in Canada • Health benefits the most important factors when deciding whether or not to eat pulses • Info about both health and environmental benefits would make them more likely to eat pulses

Messaging and Communications

Key takeaways for communicating with the public are:

1) People don't know what pulses are. Most people are not familiar with the term 'pulses' – it needs to be spelled out explicitly in any advertising or communications. Pictures of pulse dishes are not enough – people do not know enough to identify the 'pulse' among other ingredients. For example, in picture of a salad including beans, tomatoes, corn and cilantro, many Canadians would not be able to identify beans as the pulse. Perhaps the most effective tagline is simply 'beans, peas, lentils, chickpeas' in large enough font to be clearly seen.

Pulses

beans peas lentils chickpeas

2) Colourful, delicious looking dishes are a must. Visually appealing pictures are key in any communications or messaging targeting the public – they will make people stop and take notice.

3) Recipes, recipes, recipes! Variety is a well kept secret. Even pulse consumers aren't aware of the tremendous variety of dishes that can be made with pulses, and they different varieties of pulses themselves. Quick & easy recipes, ethnic recipes, child-friendly recipes and gourmet meals all have their appeal. Further, most pulse consumers tend to use pulses in side dishes (e.g. soup, salad, dips) rather than as a main part of their meals – elevate pulses from their side dish status.

Pulse Canada already has a database of visually appealing dishes and a wide array of recipes – these are an excellent example of the types of recipes to share more widely with the public.

4) The internet is key. A website address where consumers can find recipes should be a critical component for any advertising or communications. The Internet should be an essential part of any communications strategy.

5) High level nutritional and health benefits resonate the most strongly with consumers. For example, live healthy, be heart healthy, packed with protein, high in fibre or low in saturated fat. People are skeptical of specific health benefits and research claims.

6) The environment should be a secondary focus. While the environment is important to many, it should be a secondary message – preserving and protecting the environment is unlikely to drive people to increase their pulse consumption.

7) The 'grown in Canada' or 'locally grown' message, however, is meaningful. This message does resonate with many and could influence purchase and consumption decisions.

8) Weight management is important to Canadians, but… Information around pulse consumption and weight management definitely resonates with many consumers, however, it should not be the major focus of advertising or the key reason given for consuming pulses.

9) Communicating at the point of purchase could be effective. In addition to the Internet and traditional media such as newspapers and magazines, distributing information alongside food displays (or tastings) could be a fruitful channel.

Pulse Consumption among South Asian Immigrants

Background

Conducting research with South Asians who had immigrated to Canada within the past 20 years was an important objective.

Traditionally, pulse consumption is highest among South Asian, West Asian/ Arab and Latin American populations. According to 2006 Statistics Canada data, there are 1,262,865 South Asians, 304,245 Latin Americans, 265,550 Arabs and 141,890 West Asians in Canada. This includes both immigrants and those born and raised in Canada. Further, among immigrants to Canada between 2001 and 2006, more came from South Asia (20%) than from any other region in the world[1].

Assessing changes in pulse consumption over time (e.g. recent versus longer term immigrants) and the potential for marketing pulses and pulse products to this group were key areas of interest.

[1] http://www12.statcan.ca/census-recensement/2006/dp-pd/tbt/index-eng.cfm

Key Findings

Past six months pulse consumption among South Asian immigrants is extremely high, and significantly higher than the broader Canadian public.

Among those who have consumed pulses at home in the past six months, weekly consumption of all four pulses is high, with lentils in the lead and peas the least frequently consumed.

- Frequency of consumption is much higher than among the Canadian public, with about three-quarters of South Asian immigrants classified as moderate to heavy consumers, one-in-five classified as light consumers and just 1% falling into the non-consumer category. **It is notable that the percentage of South Asian immigrants that fall into each of these categories does not vary significantly with tenure in Canada.**

Unlike the broader public, South Asian immigrants primarily purchase pulses in the dried form.

- Canned beans and chickpeas are also purchased by more than half, while chickpea flour is also common among South Asian immigrants. Compared to the Canadian public, South Asian immigrants tend to prepare a wider variety of dishes made with pulses.
- It is interesting that the purchase of canned beans is significantly higher among those with 11 to 20 years tenure in Canada (74% vs. 54% 10 years or less) as is the purchase of lentil soup. The purchase and consumption of dips or spreads also tends to increase with tenure, with consumption significantly lower among past 5 years immigrants.
- The findings that pulse consumption does not decrease with tenure, and that purchase and consumption of non-traditional forms and dishes increases with tenure, suggests that South Asian immigrants could be an attractive market for prepared pulse products.

While the purchase of pulses at ethnic grocery stores is strikingly higher among South Asian immigrants than the Canadian public, the purchase of pulses at regular grocery stores also remains high.

The frequency of pulse consumption is highest at ethnic restaurants and lowest at non-ethnic restaurants.

- Monthly consumption at both ethnic restaurants and fast food restaurants is significantly higher among South Asian immigrants than the broader public.

The <u>estimated</u> average weekly cooked pulse consumption among South Asian immigrants is 2.5 cups while the median is 2.0 cups, significantly higher than among Canadian adults (average of 1.0 cups, median of 0.6 cups).

- Again, the median provides the better estimation of pulse consumption given the wide variation in reported consumption.

South Asian immigrants have positive attitudes regarding pulses – unlike the Canadian public, not knowing how to cook pulses and not liking the taste of pulses do not emerge as barriers.

- Further, choosing vegetarian meals and pulses being part of their traditional diet are motivators not found among the general public.

Health benefits and a source of protein are the two most important factors for South Asian immigrants when deciding whether or not to eat pulses.

- Taste and increasing fibre intake are also important, though lower on the scale. Being part of their traditional diet rounds out the top five factors. While health benefits was also the most important factor for Canadians overall, taste was also a top factor, while protein and fibre fell in the next tier.

Being a source of protein and high fibre content are stronger factors than low fat content with regard to nutritional factors contributing to the selection of a processed food product containing pulses. Findings are very similar to those for Canadian adults.

As with the broader Canadian public, a number of facts related to personal health could be motivators for eating pulses, while environmental benefits have a lesser impact.

- The percentage of 'more likely' responses is significantly higher among South Asian immigrants for pulses are very high in fibre, pulses are free of fats and saturated fats, pulses help reduce the risks of diabetes, pulses have a low Glycemic Index and pulses are gluten free. This may in part be reflective of the finding that the incidence of diabetes in the household is significantly higher among South Asian immigrants (24% vs. 16% Canadian adults).

Again, as with the broader Canadian public, South Asian immigrants' attitudes towards food and health indicate that the majority are concerned about maintaining their health and take actions to do so.

South Asian immigrants get information about healthy eating from a variety of sources with friends, family or colleague and nutrition or food labels leading the way.

- Canada's Food Guide, newspapers, health professionals, cookbooks, and grocery stores are also common sources.
- Looking to friends, family and colleagues, newspapers, the library, social networking sites and pulse growers and pulse companies is significantly higher among South Asian immigrants than the broader Canadian public, whereas looking to cookbooks is significantly lower.

Family is by far the most common source for information about preparing pulses, followed by friends or colleagues, cookbooks and personal knowledge or experience.

- Reliance on family, friends or colleagues and personal knowledge or experience is strikingly higher among South Asian immigrants than the broader Canadian public. The percentage selecting newspapers and social networking sites is also higher, while the percentage selecting cookbooks is significantly lower (though still close to half).

BACKGROUND AND METHODOLOGY

Background and Objectives

Apart from estimates of per capita consumption, there was a decided lack of publicly available information about pulse consumption in Canada. Information about the motivators and barriers to consuming pulses, and the influence of socio-demographic characteristics and health factors on pulse consumption were absent.

As such, Alberta Agriculture and Rural Development (ARD) wished to conduct quantitative and qualitative research to evaluate the factors influencing pulse consumption in Canada – that is, the *who*, *what*, *where* and *why* of Canadian pulse consumption. This project was carried out by Alberta Agriculture and Rural Development, with the direction and collaboration of Alberta Pulse Growers Commission and Pulse Canada.

The overall objective of this research was to evaluate the key factors that are influencing Canadians' pulse consumption. Four key areas of interest included:

1) Types, Frequency and Form
   - Identify the types of pulses consumed and eating frequency.
   - Identify forms eaten at home (frozen, canned, dried, dips/ spreads, etc).
   - Identify how pulses are prepared and eaten.
   - Identify forms eaten in restaurants.
   - Identify where pulses are purchased.

2) Motivators and Barriers
   - Determine the socio-demographic and health differences between non-consumers, light consumers and moderate to heavy consumers of pulses.
   - Determine how vegetarianism/ veganism and health factors influence pulse consumption.
   - Identify what attributes consumers are looking for in pulses (e.g. convenience, price, taste).
   - Assess why some Canadians do not eat pulses.

3) Influence of Information
   - Explore if information about the health benefits associated with consuming pulses and the environmental benefits of pulse crops would influence purchase and/or consumption decisions.
   - Identify where consumers get information about preparing pulses and healthy eating.

4) Market Segmentation
   - Determine Canadians' attitudes towards pulse consumption, as well as food and health.
   - Determine which attitudinally distinct segments exist in the consumer market.

Conducting research with South Asians, who had immigrated in the past 20 years, was a secondary research objective.

Traditionally, pulse consumption is highest among South Asian, West Asian/ Arab and Latin American populations. According to 2006 Statistics Canada data, there are 1,262,865 South Asians, 304,245 Latin Americans, 265,550 Arabs and 141,890 West Asians in Canada. This includes both immigrants and those born and raised in Canada. Further, among immigrants to Canada between 2001 and 2006, more came from South Asia (20%) than from any other region in the world[2].

Assessing changes in pulse consumption over time (e.g. recent versus longer term immigrants) and the potential for marketing pulses and pulse products to this group were key areas of interest.

Methodology

In order to realize the research objectives, Ipsos Reid utilized two distinct approaches:

- Quantitative Research: Online surveys with a National sample of Canadian adults and a targeted sample of South Asians.
- Qualitative Research: Four focus groups with the general public, conducted in Edmonton and Toronto.

Throughout the research process, input, direction and approval was provided to Ipsos Reid by the Project Team which included representatives from Alberta Agriculture and Rural Development, Alberta Pulse Growers Commission and Pulse Canada. The online survey, as well as the focus group recruitment screener and discussion guide, were developed by Ipsos Reid in close collaboration with the Project Team. The final research instruments can be found in the Appendix of this report.

Online Surveys

Between December 9th and 23rd, 2009, Ipsos Reid conducted a total of 1,100 online interviews with a representative sample of Canadians aged 18 and older, and 230 interviews with South Asian immigrants who have lived in Canada for 20 years or less. This included a pilot test among 26 Canadians on December 9th, 2009. After a review of the pilot test results (i.e., data capture, initial results and survey length), the Project Team and Ipsos Reid agreed no changes were necessary to the questionnaire. Therefore, pilot test results are included in the overall data.

Online interviews with the representative sample of Canadian adults were conducted in both English and French, while interviews with South Asian immigrants were conducted in English. As respondents are able to stop and return to the survey as they wish (i.e. without closing their browser window), it is not possible to obtain accurate interview length data. The median interview length for English and French general public respondents was approximately 18 to 19 minutes, while the median length among South Asian immigrants was approximately 22 minutes.

Screening criteria were developed to ensure all respondents had primary or shared responsibility for

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2 http://www12.statcan.ca/census-recensement/2006/dp-pd/tbt/index-eng.cfm

decisions about their household's eating and meal planning.

Overall, 27% of invitees accessed the survey. Reminder emails were sent to the South Asian immigrant sample but not to the sample of Canadian adults. The table below provides a summary of the outgo and response.

Total invited	8,557
Non-responders	6,245
Accessed the survey	2,312
Screened	236
Quota full	351
Terminated mid-interview	395
Completed interviews	1,330

National Sample

The National sample was drawn from the Ipsos Canadian Online Panel. Interviews were stratified by region and quotas were established to ensure a reliable sample size within each region for regional analysis. The final data were weighted to ensure that the overall sample's regional and age composition reflects that of the actual Canadian population aged 18 years or older according to 2006 Canadian Census data.

With a sample of 1,100, results are considered accurate to within ±3.0 percentage points, 19 times out of 20, of what they would have been, had the entire population of Canadians 18 or older been surveyed. The margin of error is larger within regions and for other sub-groupings of the survey population.

The following table details the number of interviews conducted within each region as well as the corresponding margins of error.

REGION	Number of interviews (n)	Maximum margin of error
British Columbia	164	±7.7%
Alberta	109	±9.4%
Saskatchewan and Manitoba	111	±9.3%
Ontario	386	±5.0%
Quebec	220	±6.7%
Atlantic Provinces	110	±9.4%

Survey results are presented for the overall weighted sample of adult Canadians. Additionally, significant differences by socio-demographic variables are highlighted throughout the report.

South Asian Sample

The South Asian sample was drawn from both the Ipsos Canadian Online Panel and the Ipsos Multicultural Connection Panel. With a sample of 230 South Asians, results are considered accurate to within ±6.5 percentage points, 19 times out of 20.

Data Analysis

Cross-Tabulations

The overall data analysis involves a thorough examination of bivariate distributions. That is, each item in the questionnaire is cross-tabulated with relevant behavioural, demographic, health and attitudinal variables. These cross-tabulations permit a cursory investigation of relationships between variables and suggest some interesting findings that can be explored in greater depth. The data deliverable from the bivariate analysis is a complete set of detailed cross-tabular tables.

In this report, we refer to 'significantly' different results when statistically meaningful differences occur. In simple terms, statistical significance means that two (or more) numbers are different from one another. In statistical terms, it means that a null hypothesis is rejected and that the same result will occur, given similar circumstances, within a set of specified limits (19 times out of 20). Significance tests allow researchers to say, with a specified degree of certainty, that two numbers are different.

The simplest measure of significance is the confidence level given to a percentage in the survey. Most surveys contain a qualifying statement, such as, *'the results of this survey have a margin of error of ±3.0 percentage points, 19 times out of 20.'* This number reflects the window or spread of values expected across different survey samples. As well, we used propmean t-tests that are t-tests run on column means and column proportions.

Maximum Difference Scaling (MaxDiff)

Maximum Difference Scaling was used in order to determine the importance of specific factors in consumers' decisions whether or not to eat pulses (results are provided in the section of this report titled 'Importance of Factors for Pulse Consumption).

Identifying motivators and barriers to consuming pulses was a key area of importance. In a survey, this would typically be achieved by asking respondents to identify key motivators or barriers top-of-mind or using a rating scale to express strength of importance/ impact for a list of attributes. These approaches do not always provide clear differentiation (e.g. taste, convenience, availability, price may all be considered important), and do not quantify the relative importance of each attribute.

Maximum Difference Scaling (MaxDiff) is a far more effective methodology to establish importance and/or importance scores for multiple attributes. The approach provides rankings showing the relative positioning of the attributes being rated. In research jargon, the output is described as interval scale measurements based on comparative judgments.

The approach overcomes the common problem of a lack of differentiation when standard rating or importance scales are used to rank a list of attributes. That is, using MaxDiff, even with a series of compelling choices, not everything will appear as very important when the analysis is complete.

The methodology was invented by Jordan Louviere (University of Alberta) in 1987 and is based on Thurstone's Law of Comparative Judgment. The first academic papers on the subject appeared in the early 1990s, the approach has since been validated in multiple experiments and has become an important tool for social researchers.

MaxDiff is conducted online and is the multinomial extension of the Method of Paired Comparisons (MPC).

Respondents were shown a set of four factors and were asked to indicate which to them was 'most important' and 'least important' when deciding whether or not to eat pulses. Each respondent was shown eight sets of four factors which varied based on the experimental design. An example follows:

Most important	Which of the following factors is most important to you and least important to you when deciding whether or not to eat pulses?	Least important
☑	A. Health benefits	☐
☐	B. Taste	☐
☐	C. Low in fat	☐
☐	D. Part of my traditional diet	☑

Market Segmentation

The objective of segmentation analysis is to identify homogeneous groups of consumers to effectively target via marketing – this can include product development, pricing, distribution and/or promotion. Many different segmentation techniques are in common use in market research, some of which are more suitable for attitudinal data than others. This research employed a Latent Class technique.

The Latent Class model is a particularly effective segmentation tool because rather than simply assigning each respondent to a segment, it assigns a probability for each respondent being in each segment. Very often in the real world, respondents exhibit the behaviors of more than one segment—they do not fall neatly into one segment. The latent class model captures that ambiguity by using segment probabilities. Further, the Latent Class model offers the ability not only to develop a definitive segmentation of your market at a single point in time with superior precision, but also the ability to track changes and understand the evolution of that market over time.

In order to provide an accurate portrait of the Canadian public, the segmentation analysis was **conducted on the National Sample of 1,100 Canadian adults**. The South Asian sample was not included as their pulse consumption differs markedly.

Focus Groups

Ipsos Reid conducted a total of four focus groups – two in Edmonton on January 26th and two in Toronto on January 28th, 2010. The stratification and number of participants in each focus group was as follows:

- Light pulse consumers and non-consumers, Edmonton, n=10.
- Light, moderate and heavy pulse consumers, Edmonton, n=9.
- Light pulse consumers and non-consumers, Toronto, n=8.
- Light, moderate and heavy pulse consumers, Toronto, n=8.

Screening criteria were developed to ensure participants (or members of their household) did not work in the pulse industry, and that all participants had primary or shared responsibility for making decisions about their household's eating and meal planning. Additionally, quotas were set to ensure a mix of gender, age and education, and to limit the number of vegetarians/ vegans as well as immigrants from ethnic groups that are traditionally heavy pulse consumers (i.e. South Asian, West Asian/ Middle Eastern, African or Latin American).

Structure of the Report

The report comprises two main sections:

- Factors Influencing Pulse Consumption Among Canadians – Findings from the online survey with a representative sample of Canadian adults as well as findings from the focus groups are integrated in this section. The market segmentation is presented in the last chapter of this section.
- Pulse Consumption Among South Asian Immigrants – This section presents findings from the online survey of South Asian immigrants. Key differences between this segment and the broader Canadian public are made throughout.

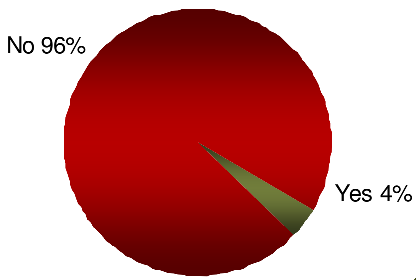
FACTORS INFLUENCING PULSE CONSUMPTION AMONG CANADIANS

RESPONDENT PROFILE

The data were analyzed by a number of health and socio-demographic variables. A profile of survey respondents is provided below.

Health Profile

Vegetarian or Vegan



Incidence of Disease

Heart disease or high blood cholesterol levels	23%
Diabetes	16%
Celiac disease	1%
None of the above	68%
Decline to respond	1%

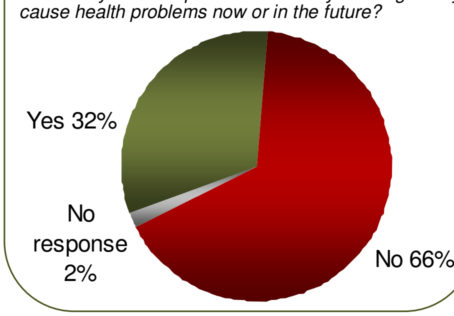
Reported Weight

For your height and weight would you say you are…?

Very underweight	<1%
Somewhat underweight	5%
Average weight	45%
Somewhat overweight	42%
Very overweight	7%
Decline to respond	1%

Advised about Weight

Have you (or family members in your household) been advised by a health professional that your weight may cause health problems now or in the future?



Tenure in Canada and Ethnic Background

Tenure in Canada

Born and raised	85%
More than 20 years	11%
11 to 20 years	2%
6 to 10 years	1%
5 years or less	1%

Base: All respondents (n=1,100)

Ethnic Background

As you know, we all live in Canada, but our ancestors come from many different ethnic backgrounds. What is the main background of your ancestors?

British	33%
Canadian	32%
European	25%
East or Southeast Asian	3%
Aboriginal/First Nations	2%
Other	3%
Decline to respond	2%

Base: All respondents (n=1,100)

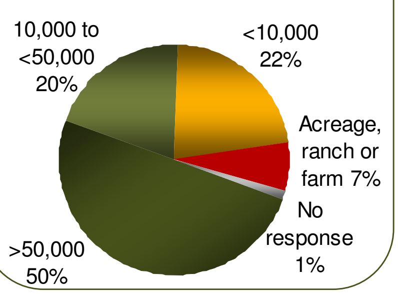
Age Left Country of Birth

Under the age of 12	40%
12 to 17	12%
18 or older	37%
Decline to respond	11%

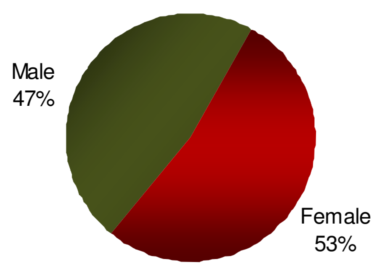
Base: Not born and raised in Canada (n=161)

Demographics

Size of City or Town



Gender



Age

18 to 24 years	6%
25 to 34 years	21%
35 to 44 years	13%
45 to 54 years	27%
55 to 64 years	20%
65 years or older	13%
Decline to respond	1%
Mean	*47*

Household Size

1 person	19%
2 people	48%
3 people	17%
4 or 5 people	14%
6 or more people	1%
Decline to respond	1%

Education

High school or less	28%
Some university,/college/ post secondary technical	19%
Graduated college/ post secondary technical	27%
Completed university undergraduate degree	18%
Completed university post graduate degree	7%
Decline to respond	1%

Income

Less than $30,000	14%
$30,000 to just under $60,000	29%
$60,000 to just under $100,000	25%
$100,000 or more	17%
Decline to respond	15%

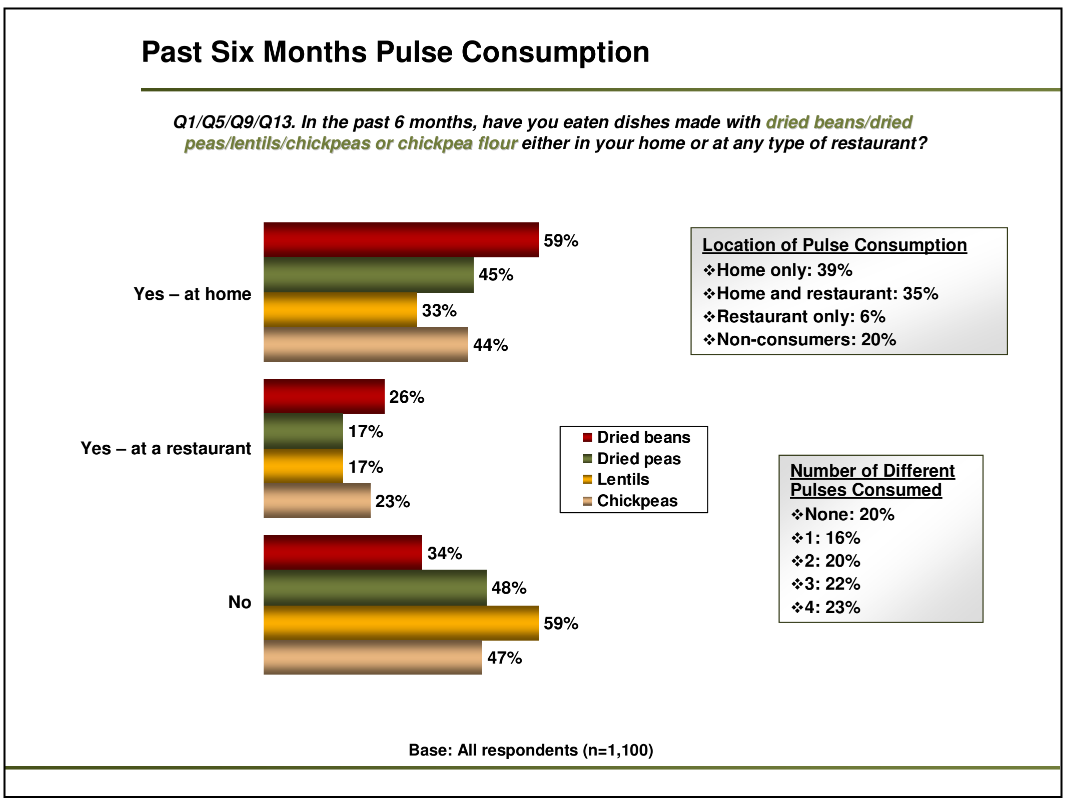
TYPES, FREQUENCY AND FORM

Past Six Months Pulse Consumption

Past six months pulse consumption is highest for beans and lowest for lentils. One-in-five Canadians report they have not consumed any pulses in the past six months.

Overall, two-in-three (66%) Canadian adults indicate they have consumed beans – at home and/or at a restaurant – in the past six months. This drops to just over half with regard to chickpeas (53%) and peas (52%), while consumption of lentils is limited to four-in-ten (41%) Canadians. Past six months pulse consumption at home follows the same pattern, while pulse consumption at restaurants is similar for beans (26%) and chickpeas (23%), and slightly lower for peas and lentils (both 17%).

Four-in-ten (39%) Canadians' pulse consumption is limited to their home only, while 35% have consumed pulses both at home and at a restaurant, and 6% have consumed pulses at restaurants only – the remaining 20% have not consumed pulses at home or at a restaurant in the past six months.



When the data are analyzed further, a number of significant demographic differences emerge.

- Regionally, pulse consumption tends to be highest in British Columbia and lowest in Atlantic Canada. While there are no significant differences with regard to beans, past six months consumption of peas is 60% in BC versus 39% in Atlantic Canada, consumption of chickpeas is 60% in BC versus 36% in Atlantic Canada, while consumption of lentils is 52% in BC compared to only 20% in Atlantic Canada.

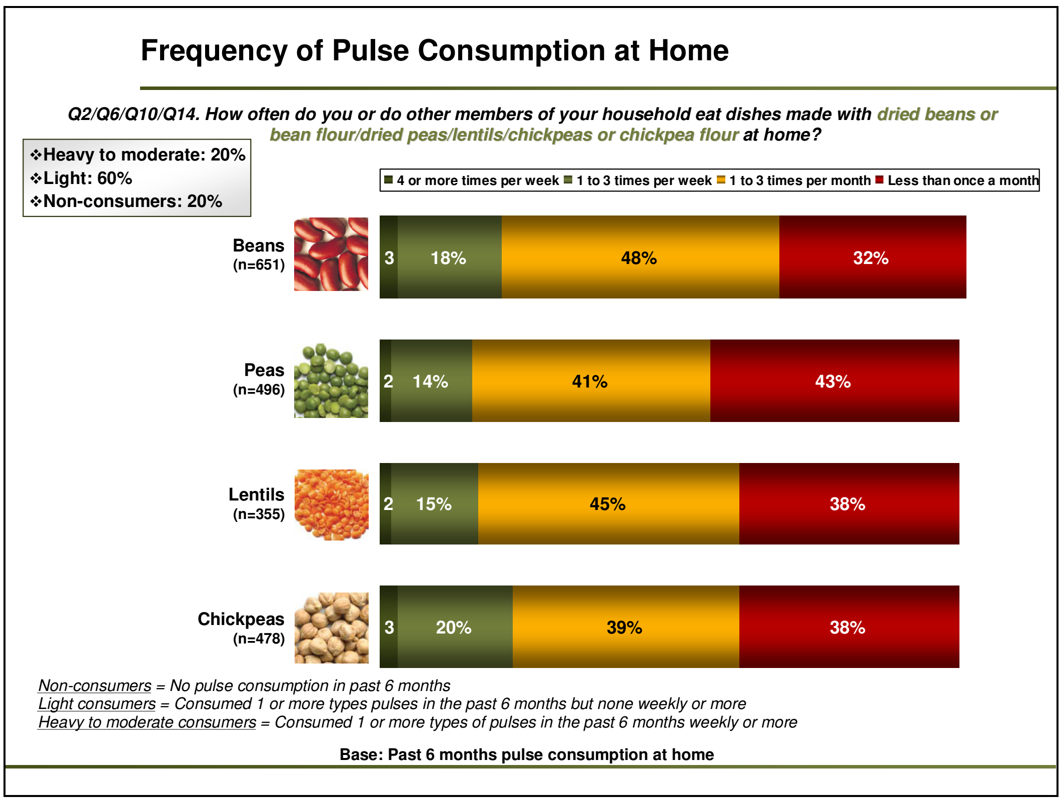
- Pulse consumption also varies significantly by age, with consumption lower among younger Canadians.
  - Past six months consumption of beans is significantly lower among 18 to 34 year olds (58%) compared to those aged 35 to 54 (66%) or 55 or older (71%).
  - Consumption of peas is significantly lower among those aged 18 to 34 (46%) and 35 to 54 (50%) compared to those aged 55 or older (60%).
  - Consumption of lentils is also significantly lower among those aged 18 to 34 (34%) and 35 to 54 (38%) compared to those aged 55 or older (60%).
  - Consumption of chickpeas does not vary by age.
- University educated Canadians report higher levels of pulse consumption.
  - Consumption of beans is significantly higher among those with a university degree (72%) compared to those with some post-secondary (64%) and high school or less education (62%).
  - Consumption of both lentils and chickpeas increases significantly with education. For lentils, 30% among those with high school or less education, 41% among those with some post-secondary and 51% among those with a university degree. For chickpeas, consumption is 42% among those with high school or less education, 52% among those with some post-secondary and 67% among university educated Canadians.
- Consumption of pulses also tends to be lower in single-person households.

Frequency of Pulse Consumption at Home

Among those who have consumed pulses at home in the past six months, frequency of consumption does not vary markedly by type of pulse.

Among consumers of each type of pulse, the frequency of weekly consumption is highest for chickpeas (23%) and beans (21%), and slightly lower for lentils (17%) and peas (16%). On a monthly basis, the frequency of consumption of beans is highest (68%), followed by chickpeas and lentils (both 62%) and then peas (57%).

It is interesting that although the incidence of pulse consumption within the past six months tends to be lower among 18 to 34 year olds, for those who do consume, peas, lentils and chickpeas, the frequency of weekly consumption is significantly higher compared to older Canadians. One-quarter (26%) of 18 to 34 year olds report weekly consumption of peas (vs. 16% of 35 to 54 year olds and 11% of those aged 55 or older) and 23% report weekly consumption of lentils (vs. 14% of 35 to 54 year olds and 17% of those aged 55 or older). Weekly consumption of chickpeas is higher among both 18 to 34 year olds (27%) and 35 to 54 year olds (26%) than their counterparts age 55 or older (15%).



Overall, 20% of Canadians report consuming at least one type of pulse on a weekly basis at home, 60% report consuming at least one type of pulse at home one to three times per month or less than once a month, and 20% indicate they have not consumed any type of pulse at home or at a restaurant during the past six months. For analytic purposes, these groups are referred to as **'moderate to heavy consumers,' 'light consumers'** and **'non-consumers.'**

Key Socio-Demographic Differences between Non-Consumers, Light Consumers and Moderate to Heavy Consumers

- **Age**: **Light** consumers are **older** than both non-consumers and moderate to heavy consumers. Four-in-ten (38%) of light consumers are aged 55 or older compared with 26% of non-consumers and 22% of heavy to moderate consumers. The median age of light consumers is 50 years, versus 48 years for non-consumers and 46 years for heavy to moderate consumers.
- **Education**: Pulse consumption **increases** with **university education**. Just 17% of non-consumers have a university degree, versus 24% of light consumers and 33% of moderate to heavy consumers.
- **Household size**: One-quarter (27%) of **non-consumers live alone** (vs. 18% of light consumers and 15% of moderate to heavy consumers), while the majority (51%) of **light consumers** live in **two-person** households, and four-in-ten (39%) **moderate to heavy** consumers have **three or more** people in their household (vs. 30% of light consumers and non-consumers).
- **Household income**: Perhaps reflective of a smaller household size, **non-consumers** have **lower household incomes**. Four-in-ten (41%) are in the less than $60K income bracket, compared to 41% of light consumers and 45% of moderate to heavy consumers. At the other end of the scale, just 11% report a household income of $100K or more, compared to 17% of light consumers and 21% of moderate to heavy consumers.
- **Tenure in Canada**: The percentage of respondents **born and raised** in Canada **decreases** significantly as pulse **consumption increases**. Among non-consumers, 94% were born and raised in Canada – this decreases to 86% among light consumers and 74% among moderate to heavy consumers.

Form and Types of Dishes Consumed at Home

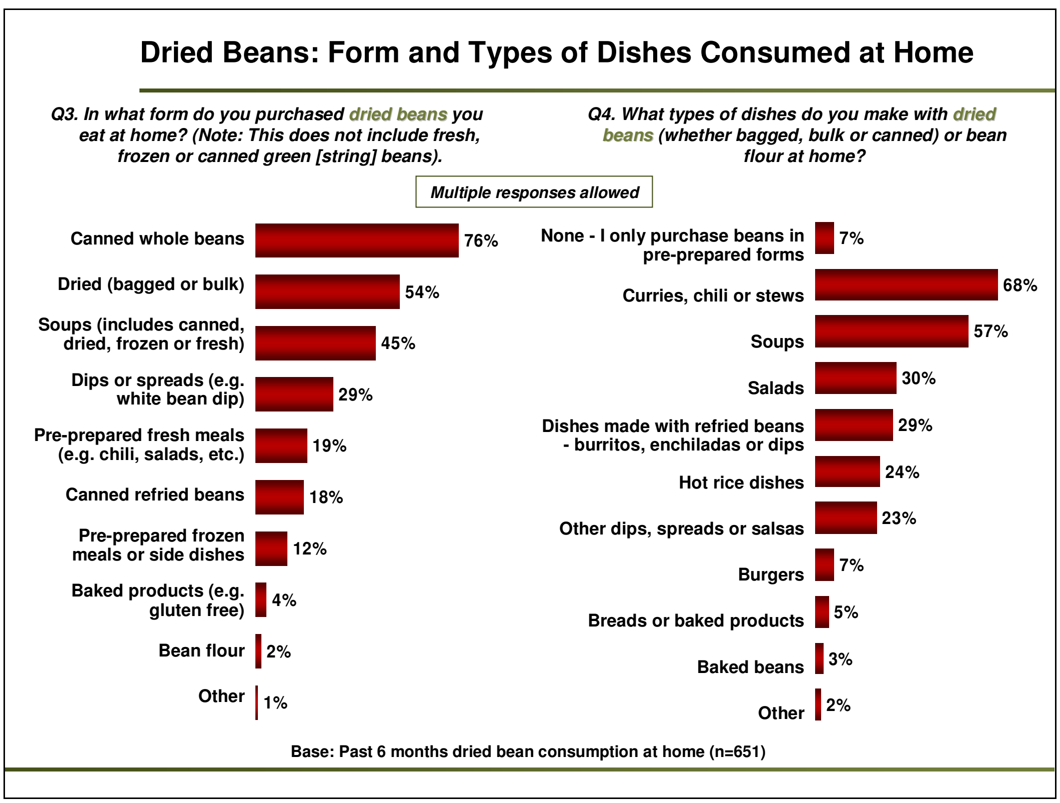
Respondents who indicated they had consumed each type of pulse at home in the past six months were asked the form in which each pulse was purchased as well as the types of dishes made at home. When reviewing findings for types of dishes, one should keep in mind that this survey was conducted in December and responses may have been influenced by seasonality – that is, dishes such as soups, curries, chilies or stews could have been more top-of-mind than dishes such as salads and salsas.

Canned, dried and soups are the most common forms of pulses purchased for home consumption across all pulse types. Pre-prepared fresh or frozen meals account for less than 20% of purchases. Soup is by far the most frequent dish made with peas and lentils, while dishes made with beans and chickpeas are more diverse.

Consumption of pre-prepared forms and dips or spreads are more prevalent among younger Canadians aged 18 to 34 years.

Beans

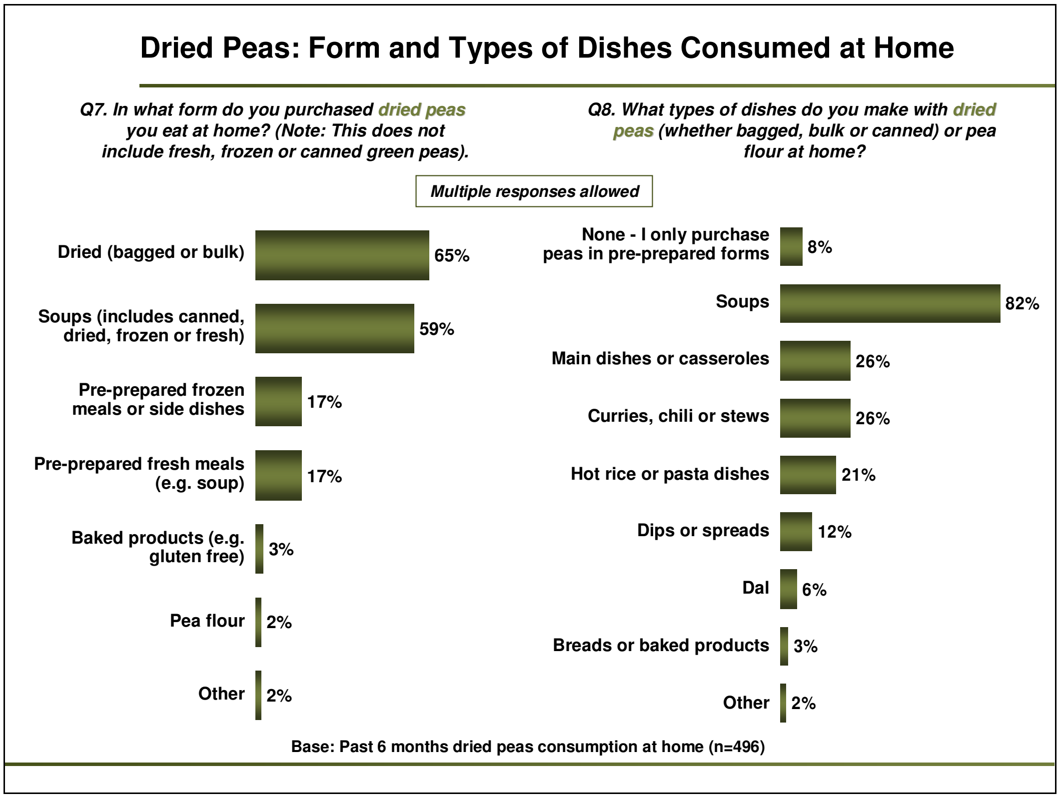
For beans, canned whole beans (76%) are the clear leader when it comes to forms purchased. Other frequently purchased forms include dried (54%) and soups (45%), followed by dips or spreads (29%). Curries, chili or stews (68%) and soups (57%) are the most common dishes made, while salads (30%), dishes with refried beans (29%) , hot rice dishes (24%) and dips, spreads or salsas (23%) are mentioned by one-quarter or more bean consumers.



Purchase of canned refried beans is significantly higher among those aged 18 to 34 (26%) than Canadians age 35 or older (15%) as is consumption of dishes made with refried bans (41% vs. 26%).

Peas

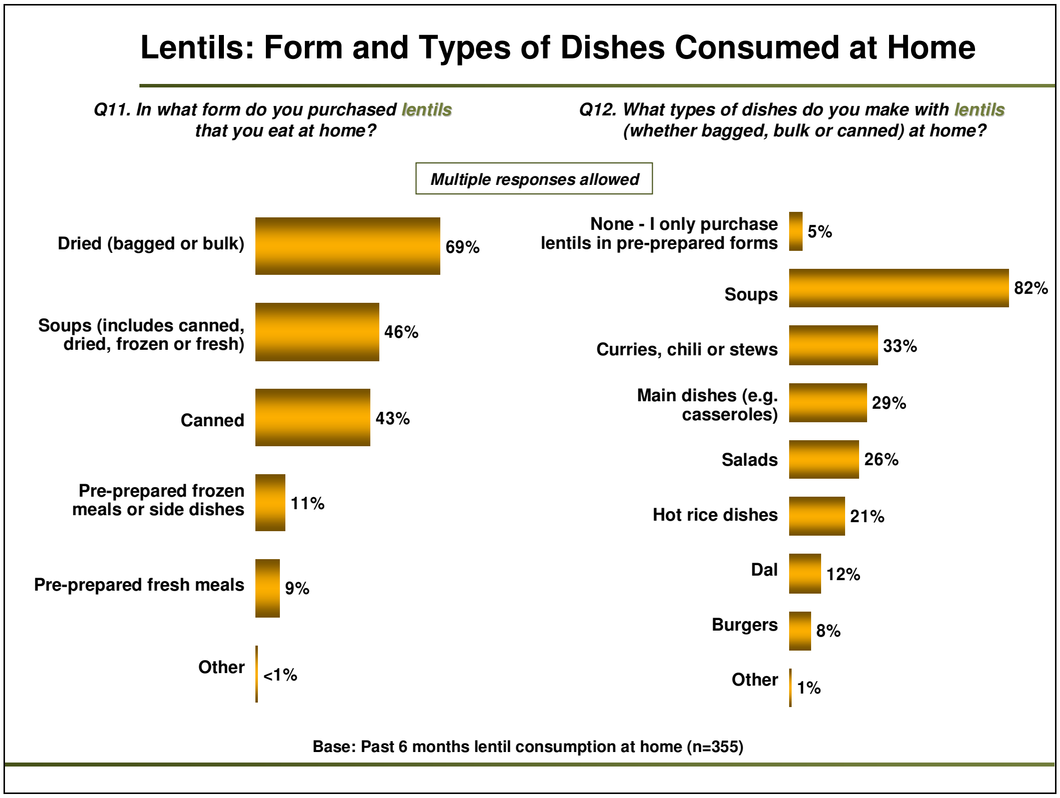
Dried (65%) or soups (59%) are the predominant forms of purchase for peas, while soups (82%) are by far the most common dishes consumed. About one-quarter (26%) also make main dishes or casseroles, or curries, chili or stews with dried beans at home.



Purchase of pre-prepared frozen meals or side dishes is significantly higher among younger Canadians aged 18 to 34 (32%) than their counterparts aged 35 to 54 (15%) or 55 and older (10%).

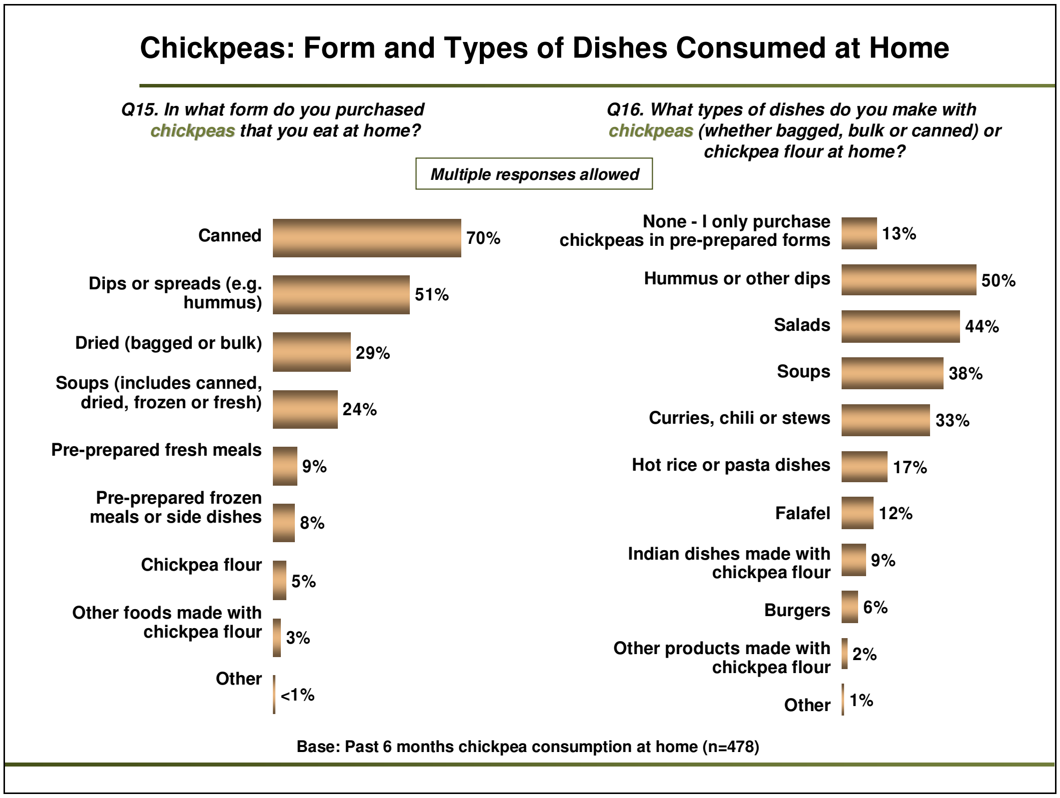
Lentils

Seven-in-ten (69%) lentil consumers purchase lentils dried, while 46% purchase them as soups and 43% canned. Similar to peas, soups (82%) are the most common dishes consumed. Curries, chili or stews (33%), main dishes such as casseroles (29%) and salads (26%) are also eaten by more than one-quarter of lentil consumers.



Chickpeas

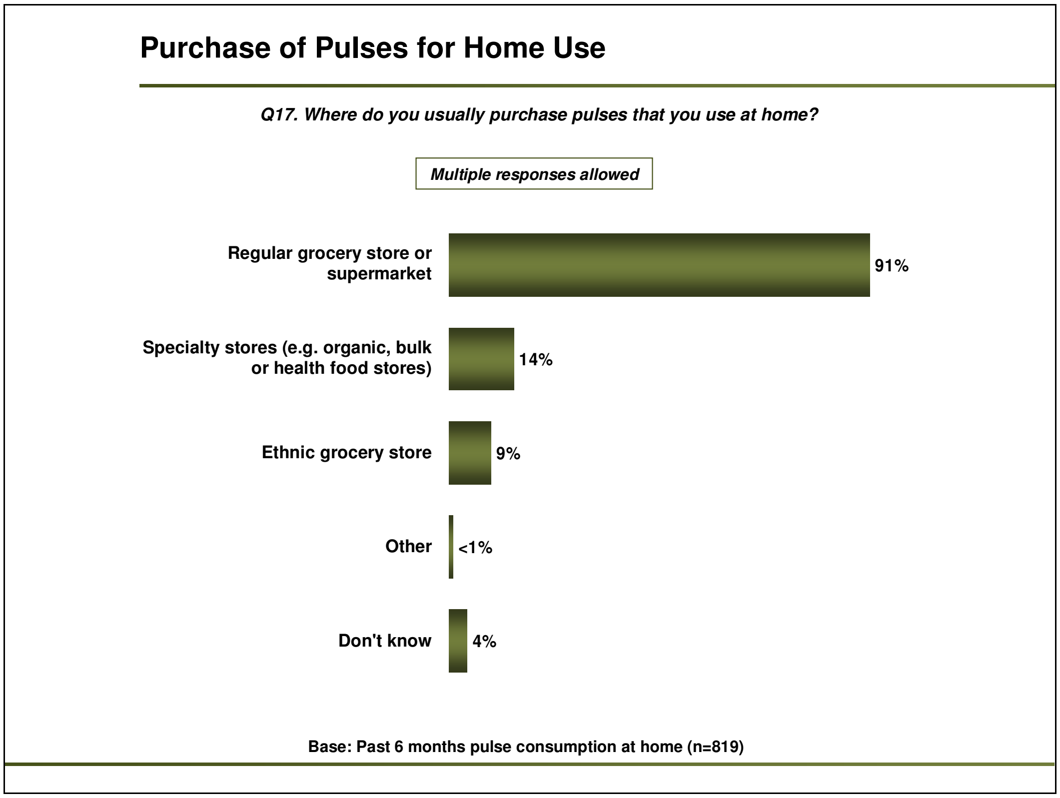
The increasing popularity of hummus seems to be a major contributor to chickpea consumption. Canned chickpeas (70%) are the most common form of purchase, followed by dips or spreads (51%), and then dried (29%) and soups (24%). The most common dishes made with chickpeas are quite different than for other pulses – half (50%) of consumers make hummus or other dips, followed closely by salads (44%). As with other pulses, soups (38%) and curries, chili or stews (33%) are also relatively common dishes.



Purchase of Pulses for Home Use

The purchase of pulses at specialty stores or ethnic groceries is quite low, while traditional grocery stores or supermarkets are the predominant choice.

Nine-in-ten pulse (91%) consumers purchase the pulses they buy at home at a regular grocery store or supermarket, while 14% purchase them at specialty stores and just 9% purchase pulses at ethnic grocery stores.

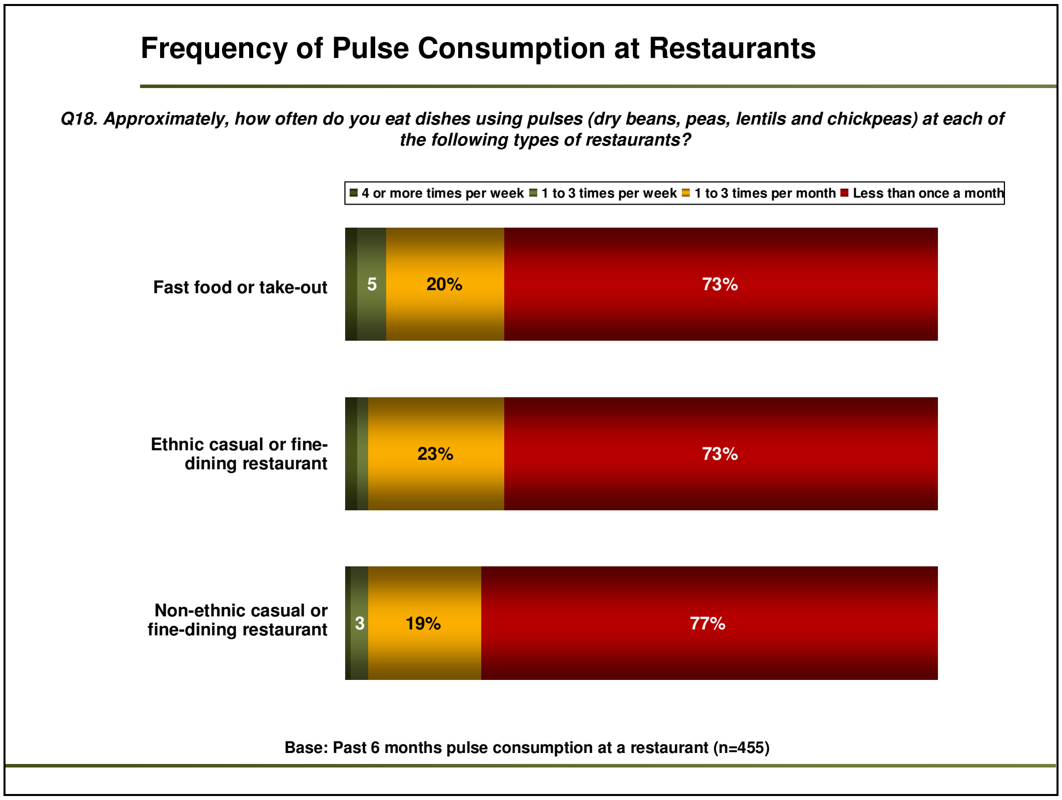


Purchasing pulses at regular grocery stores is highest in Quebec (97%) and Alberta (96%), while purchase at specialty stores is highest in Saskatchewan and Manitoba (23%), Ontario (18%) and British Columbia (17%). Likely due to the absence of ethnic grocery stores, purchase at ethnic groceries is significantly lower in towns with less than 10,000 people (3%), than it towns or cities with 10,000 to 50,000 people (8%) and cities with a population of more than 50,000 (13%).

Pulse Consumption at Restaurants

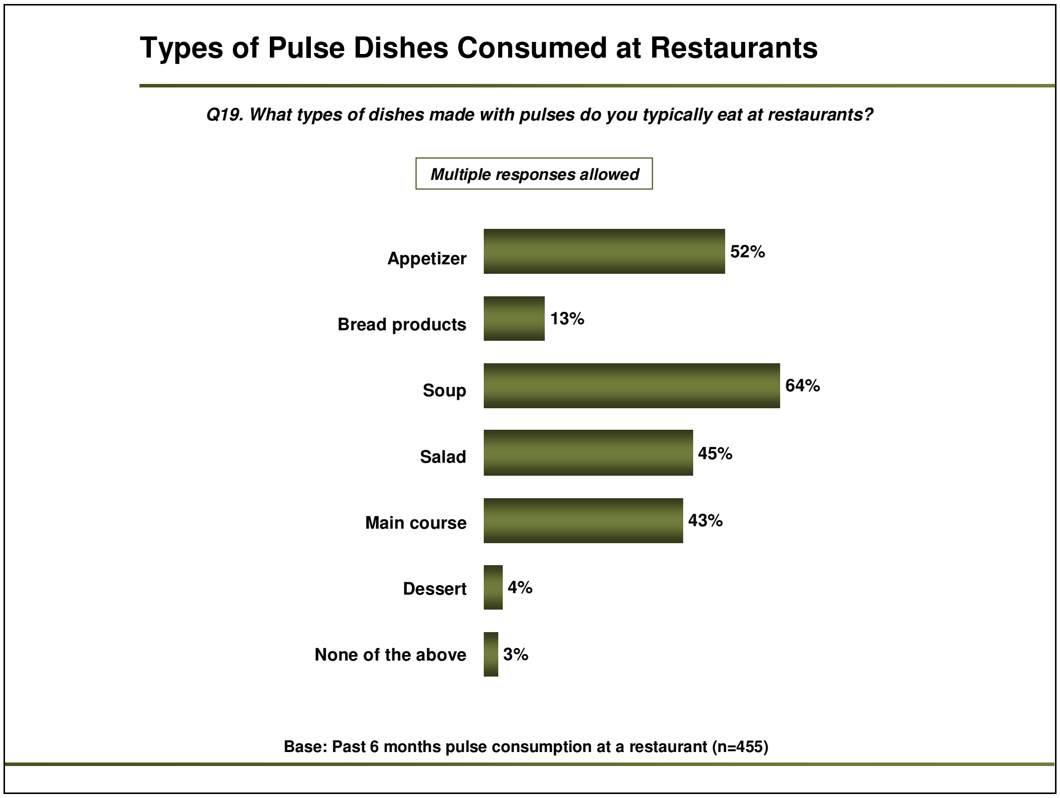
The **four-in-ten Canadians who had eaten pulses at a restaurant in the past six months** were asked how often they eat pulse dishes at different types of restaurants.

Pulse consumption at restaurants does not vary markedly by restaurant type. Weekly consumption at restaurants is low, with fast food leading the way at 7% followed by ethnic and non-ethnic restaurants at 4%. Monthly pulse consumption at restaurants stands at 27% for both fast food and ethnic restaurants, and is slightly lower (23%) at non-ethnic restaurants.



Monthly pulse consumption at both fast food restaurants and ethnic restaurants is significantly lower among Canadians aged 55 or older (18% and 17%, respectively).

A variety of types of dishes made with pulses are consumed at restaurants with soup (64%) leading the way, followed by appetizers (52%), salads (45%) and main courses (43%). Consumption of bread products (13%) and desserts (4%) made with pulses is limited.



Estimated Average Weekly Cooked Pulse Consumption

A number of estimations and assumptions were used in order to approximate average weekly cooked pulse consumption. This is by no means an accurate measure and was calculated in order to provide a rough estimate only. These findings are not based on actual consumption data and should be used and interpreted with caution.

In order to approximate average weekly cooked pulse consumption among Canadians, pulse consumers were asked to approximate the total cups of prepared foods that include pulses, which they eat at all locations.

Respondents were given following guidelines: 1 cup is about the size of a baseball; ½ cup is about the size of an ice cream scoop; and, ¼ cup is about the size of a large egg. They were then asked to indicate the volume (total cups) of: main dishes (e.g. chilis, casseroles or curries) with pulses and meat, rice or pasta; soups with pulses; dips, spreads or snacks (e.g. hummus, pea snacks, snacks made with pulse flour); salads with pulses; and, all other pulse dishes (e.g. baked beans, chili without meat, falafels, dal, or refried beans) they consume in a typical week.

For calculating average weekly cooked pulse consumption, the following proxy amounts and conversions were used.

Proxy amounts for the volume (total cups) of prepared foods that include pulses:

- None = 0 cups
- Less than 1/4 cup = 0.2 cups
- 1/4 cup to < 1 cup = 0.5 cups
- 1 cup to < 3 cups = 2.0 cups
- 3 cups or more = 3.0 cups

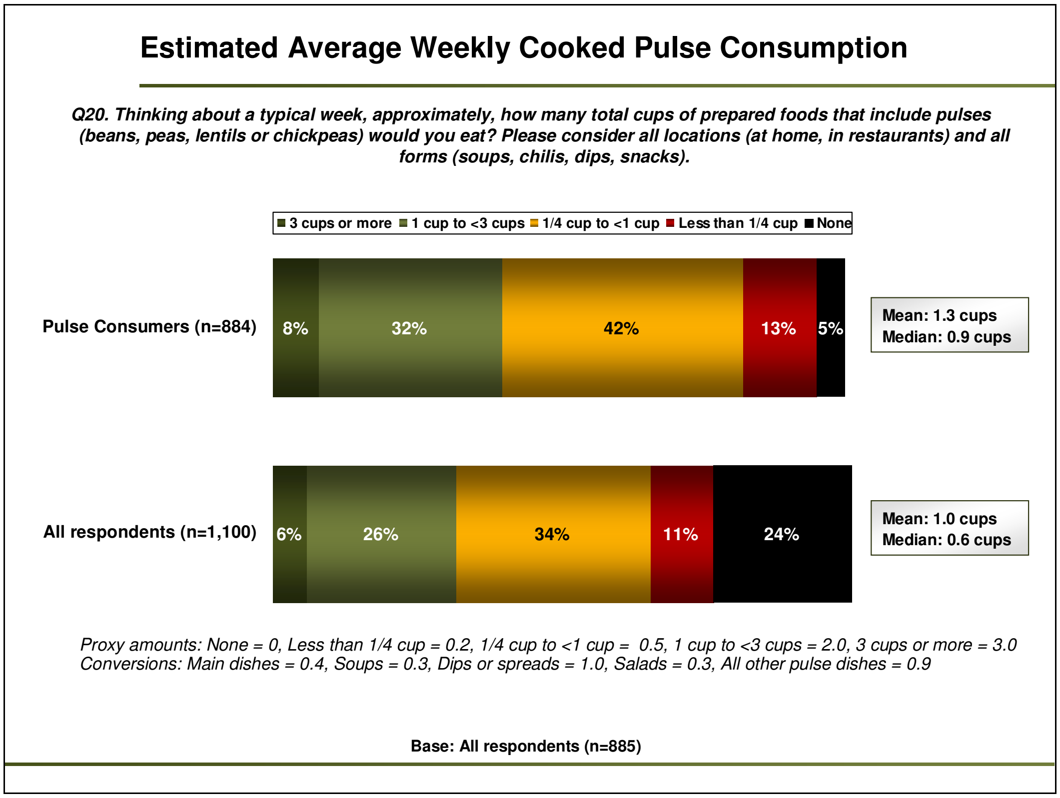
Conversions for the percentage of each type of dish made up of pulses:

- Main dishes = 40%
- Soups = 30%
- Dips or spreads = 100%
- Salads = 30%
- All other pulse dishes = 90%

Using this calculation, if a respondent indicated they ate 1 cup to < 3cups of soup with pulses in a typical week, their weekly cooked pulse consumption from soup would be 0.6 cups (2.0 cups x 30%).

The estimated average weekly cooked pulse consumption among past six month Canadian pulse consumers is 1.3 cups and the median is 0.9. This drops to an average of 1.0 cups and a median of 0.6 cups when all Canadians are taken into account.

The median provides a better estimation of pulse consumption among Canadians than the average as there is a wide variation in reported consumption. The median represents the middle value; that is, an equal number of respondents are above and below the median. The average, on the other hand, is skewed by respondents who report high volumes of pulse consumption.



Among pulse consumers, the average weekly cooked pulse consumption is significantly lower for 18 to 34 year olds (1.1 cups) compared with those aged 35 to 54 (1.4 cups) and 55 or older (1.3 cups).

Relationship between Vegetarianism/ Veganism and Health Factors on Pulse Consumption

There is a strong linkage between vegetarianism/ veganism and pulse consumption and a moderate linkage between chronic disease and pulse consumption. Weight and pulse consumption, however, are only weakly linked with similar consumption reported among both average weight and overweight individuals.

Vegetarianism/ Veganism

As one might expect, pulse consumption is markedly higher among respondents with a vegetarian or vegan in the household. **Consumption of all types of pulses is significantly higher both at home and at restaurants. Further, unlike the broader public, past six months consumption of the different types of pulses does not vary markedly. Frequency of consumption does, however, vary with beans and chickpeas consumed more often than lentils and peas.**

	Vegetarians	Non-Vegetarians
Past six months consumption at home		
Beans	80%	58%
Peas	71%	44%
Lentils	77%	31%
Chickpeas	76%	43%
Past six months consumption at a restaurant		
Beans	47%	25%
Peas	31%	17%
Lentils	37%	16%
Chickpeas	46%	22%
Past six months consumption at home or at a restaurant		
Beans	85%	65%
Peas	77%	51%
Lentils	83%	39%
Chickpeas	82%	52%
Weekly consumption in the past six months		
Beans	63%	18%
Peas	38%	14%
Lentils	47%	14%
Chickpeas	64%	20%

- Three-quarters (73%) of those in a vegetarian or vegan household fall in the moderate to heavy consumer group, while 25% are classified as light consumers. Further, the average weekly cooked pulse consumption among vegetarian/ vegan pulse consumers is 2.1 cups.
- Incidence of purchasing pulses at specialty stores and ethnic grocery stores are both significantly higher (34% and 26%, respectively).
- Weekly consumption of pulses at all types of restaurants is also significantly higher among those in a vegetarian or vegan household – 34% weekly consumption at fast food restaurants (vs. 6% non-vegetarian), 25% at ethnic restaurants (vs. 3%) and 14% at non-ethnic restaurants (vs. 3%).

Heart Disease and Diabetes

Consumption of beans, peas and lentils, but not chickpeas, is significantly higher among Canadians who have a household member with heart disease or high blood cholesterol, or diabetes. The relationship between these chronic conditions and pulse consumption, however, is not as strong as in the case of vegetarianism/ veganism.

- Beans: Past six months consumption of beans at home is 64% in households with heart disease and 66% in households with diabetes (vs. 57% in households without heart disease, diabetes or celiac disease).
- Peas: Past six months consumption of peas at home is 55% in households with heart disease and 52% in households with diabetes (vs. 42% in households without heart disease, diabetes or celiac disease).
- Lentils: Past six months consumption of lentils at home or at a restaurant is 48% in households with diabetes compared to 39% in households without heart disease, diabetes or celiac disease).
- There are significantly fewer non-consumers of pulses in households with heart disease (11%) and diabetes (13%) than in households without heart disease, diabetes or celiac disease (23%). Further, the average weekly cooked pulse consumption among households with diabetes is 1.6 cups (vs. 1.2 cups in households without heart disease, diabetes or celiac disease).

Weight

It is interesting that consumption of lentils, but not beans, peas or chickpeas, is significantly higher among Canadians who are overweight or average weight versus underweight, as well as those who have been advised by a health professional that their weight (or that of a household member) may cause problems. Estimated weekly cooked pulse consumption is also lower among those who are underweight. One should note, however, that only 5% of Canadian adults classify themselves as underweight and half of this group is under the age of 35. **Pulse consumption does not vary significantly between Canadians who are average weight versus overweight.**

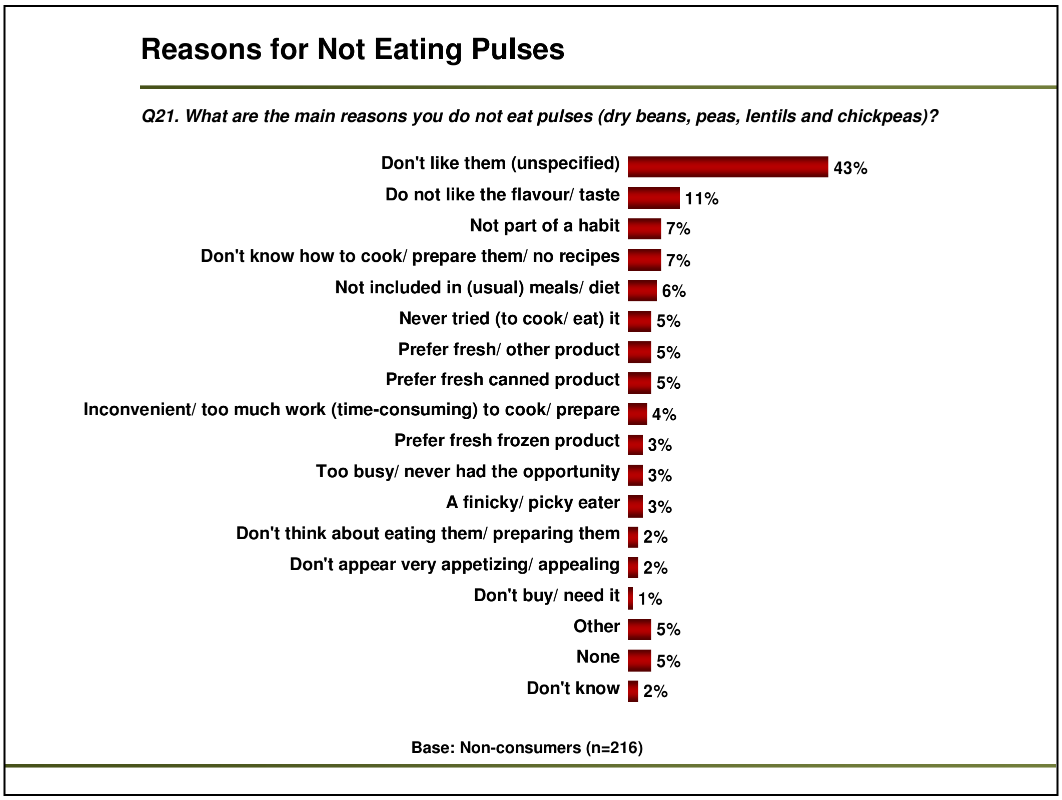
- Past six months consumption of lentils at home or at a restaurant is 41% among those who self-classify as overweight and 42% among those who say they are average weight compared to 26% among those who report being underweight. Lentil consumption is also higher among those who have been advised by a health professional that their weight (or that of a household member) may cause problems than those who have not (46% vs. 39%).
- The average weekly cooked pulse consumption is 1.3 cups among those who are overweight, 1.4 cups among those of average weight and 0.9 cups among those who are underweight. Average consumption is 1.4 cups among those who have been advised by a health professional that their weight (or that of a household member) may cause problems compared to 1.2 cups among those who have not.
- Agreement with the statement 'I am concerned about weight control' does not vary significantly between non-consumers (74% agree), light consumers (80% agree) and moderate to heavy consumers (76% agree).

MOTIVATORS AND BARRIERS

Reasons for Not Eating Pulses

A general dislike of pulses is the main reason given top-of-mind by non-consumers for not eating pulses.

When non-consumers were asked to cite the main reasons why they do not eat pulses, a simple "I don't like them" was by far the most frequent response (43%), while 11% specifically said "I don't like the flavour or taste." Not knowing how to cook pulses/ never having tried to cook them, or pulses not being part of their usual meals/ not a habit, were the next most frequent mentions.



While non-consumers in the focus group also said they did not like pulses, upon further probing, **texture** and the **bland** taste emerged as key reasons for their dislike.

"I don't like the texture."

"I've had chili and I don't like the texture of kidney beans in chili."

"They are bland – they need more flavour."

"Bland – lentils, all of them, bland."

Not knowing how to cook pulses was also reinforced as a barrier.

"I don't know how to cook with them."

"I'm not used to cooking them…I'm scared to try…stick with what I have."

"I've been told to do this or do that. I've seen them in salads. I just don't know what to do with them."

"Not many recipes call for them."

It is notable, however, that several focus group participants had 'learned to like pulses' and enjoyed them when cooked by someone who knew how to make them tasty.

"I've learned to like the texture. When it tastes good, the texture gets forgotten a little."

"I like them mixed with rice. I don't like them without because of the texture, but it's less noticeable in rice."

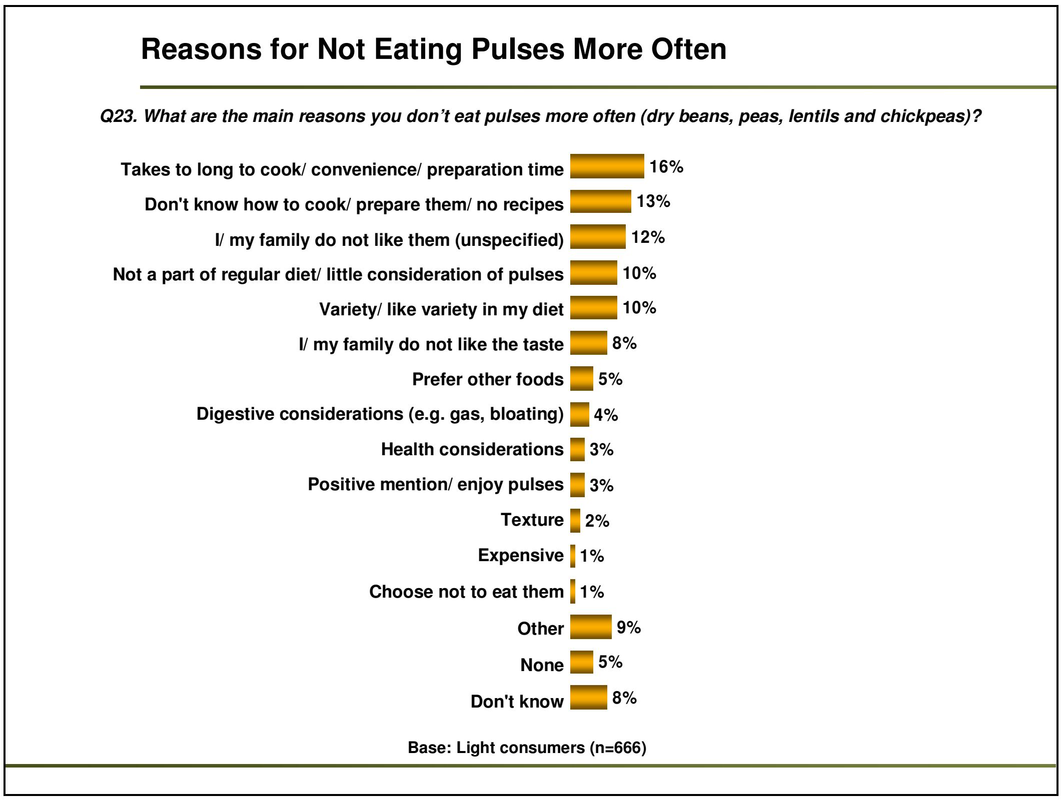
"If I go to an East Indian restaurant, I absolutely look for pulses because they know how to cook with them."

Still, from the focus groups, it did become apparent that some people simply are not engaged when it comes to food. They don't plan meals, they eat whatever is in the fridge or cupboards *("it's usually some kind of meat, and I just put it in the pan and cook it up")*, they are not interested in discovering new foods or trying new recipes, and they are happy eating their basic, familiar diet. Regardless of marketing or information campaigns, this segment of the population is unlikely to incorporate pulses as part of their regular diet.

Reasons for Not Eating Pulses More Often

Top-of-mind, a variety of responses are provided as reasons for not eating pulses more often – no single barrier stands out.

The most frequent reasons given by 'light consumers' for not consuming pulses more often are not liking pulses ("I/ my family do not like them" – 12% and "I/ my family do not like the taste" – 8%), convenience (16%), not knowing how to cook pulses (13%), not considering pulses as part of their diet (10%), and seeking variety in their diet (10%).

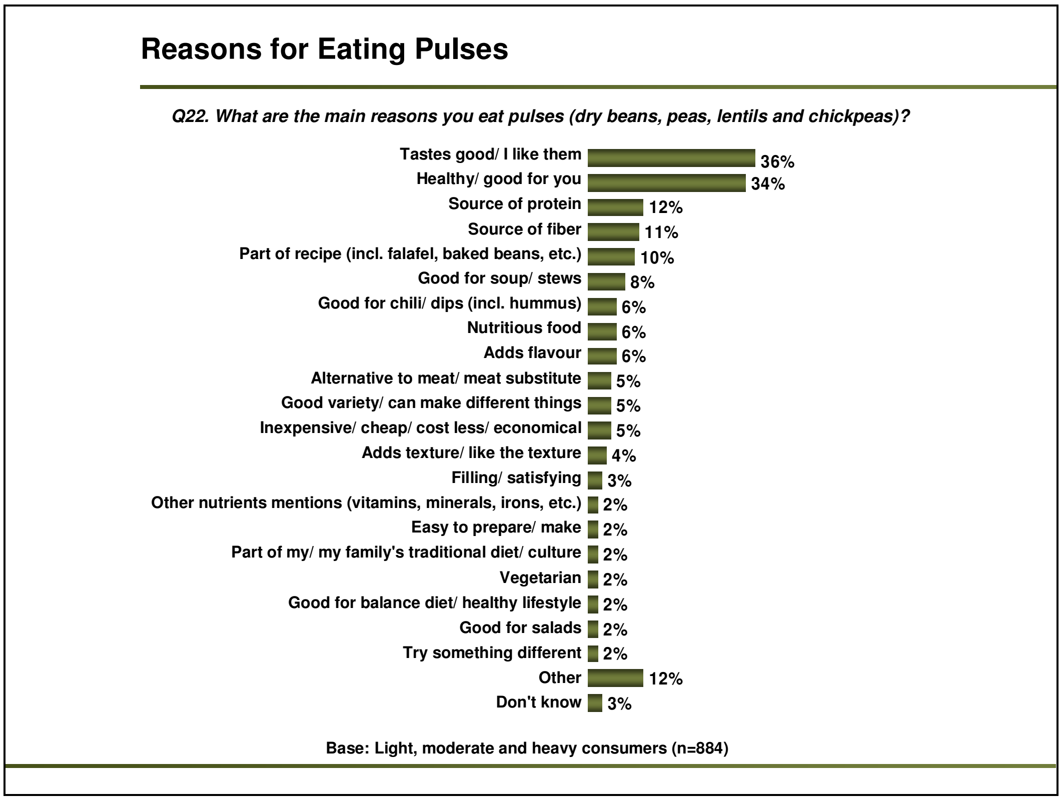


Focus group findings were consistent with the survey results, with not having enough recipes or not knowing enough different ways to use them or cook pulses often mentioned, as was the effort and time it takes to prepare dishes with pulses, particularly dried varieties. It is also noteworthy, that many light consumers considered pulses to be a side dish or accompaniment rather than a meal (with the exception of chili).

Reasons for Eating Pulses

On an unaided basis, taste – that is, liking the taste – and health benefits are the top two reasons given by pulse consumers for eating pulses.

When asked for reasons why they eat pulses, the top two responses given by Canadian pulse consumers are "tastes good/ I like them" (36%) and "healthy/ good for you" (34%). Specific health or dietary benefits such as "source of protein" (12%) and "source of fibre" (12%) are also cited, as is the use of pulses for specific recipes ("part of recipe" – 10%, "good for soups/ stews" – 8%, "good for chili/ dips" – 6%).



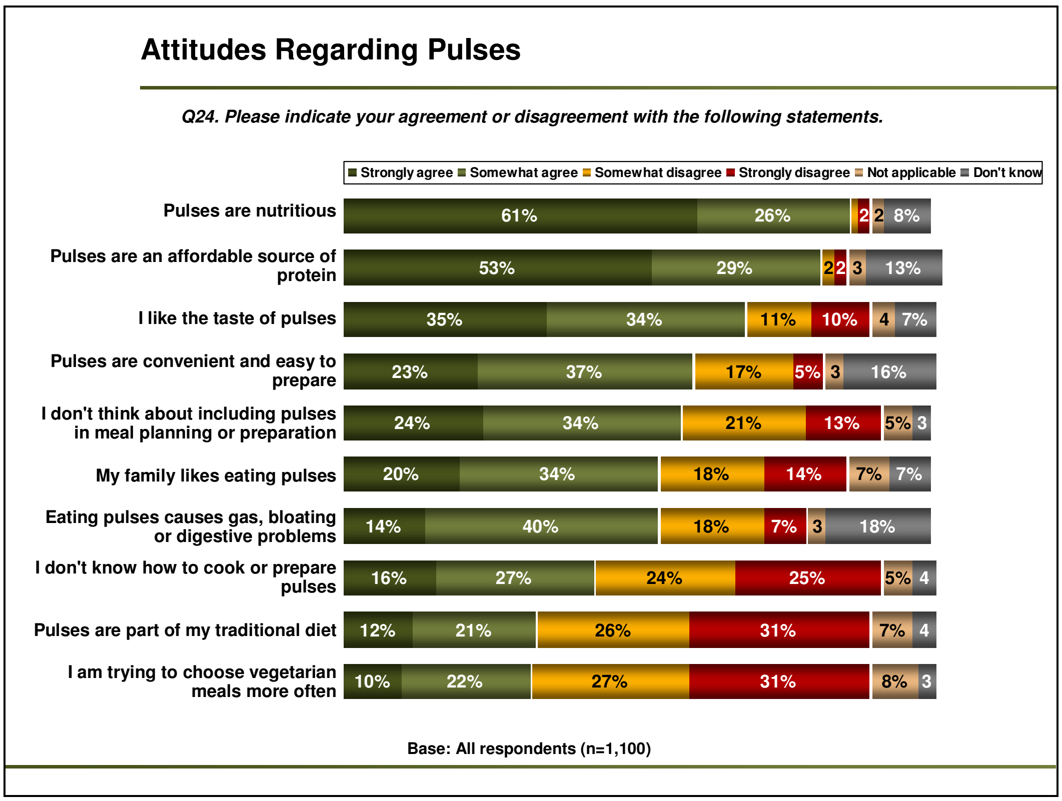
Focus group participant echoed similar responses.

Attitudes Regarding Pulses

Canadians have generally positive attitudes towards pulses – most people like them and recognize their nutritional benefits. Not thinking about including pulses in meal planning or preparation (58%) and not knowing how to cook or prepare pulses (43%) are perhaps the biggest limitations to consumption, while not liking the taste of pulses (21%, plus 11% not applicable or don't know) and family members not liking to eat pulses (32%, plus 7% don't know) are barriers for a sizeable minority.

While there is strong agreement that pulses are an affordable source of protein (82%), and agreement that eating pulses can cause digestive problems (54%), data in the next section of this report indicate that these are not key decision factors for pulse consumption.

It is notable that only one-third of Canadians agree that pulses are part of their traditional diet (33%) or that they are trying to choose vegetarian meals more often (32%).

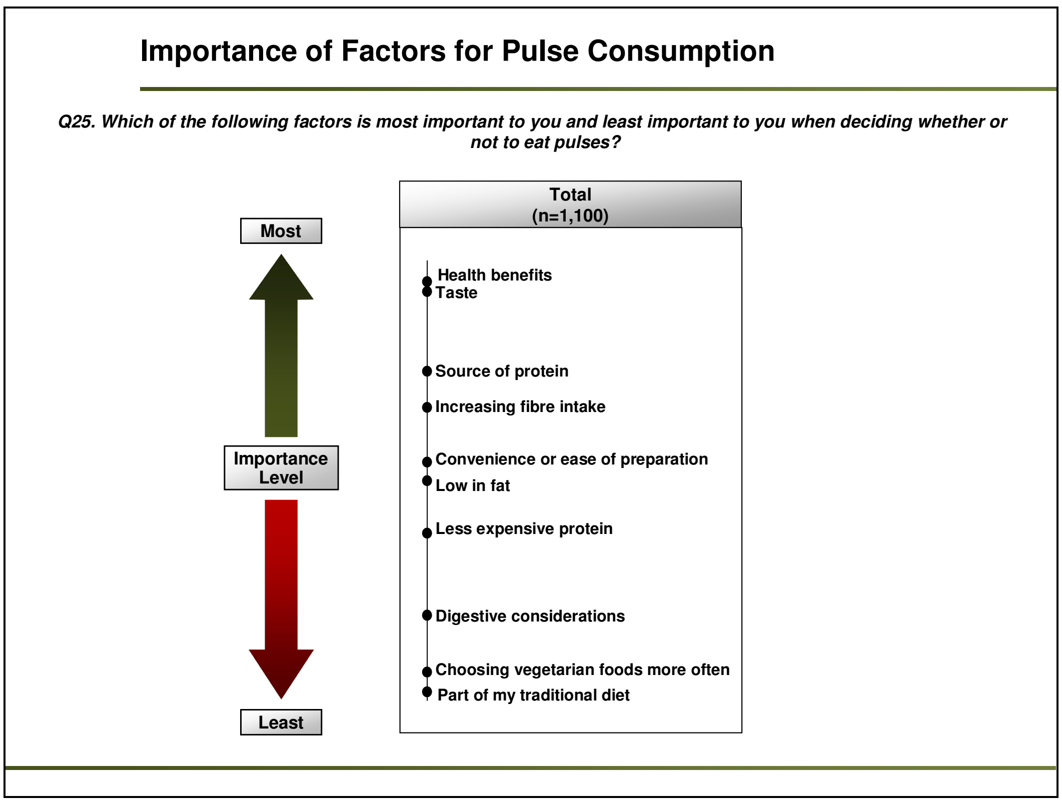


Importance of Factors for Pulse Consumption

Understanding trade-offs and the relative importance of attributes when deciding whether or not to eat pulses is of key importance. Top-of-mind motivators and barriers and rating scales do not quantify the relative importance of different factors. Therefore, a Maximum Difference Scaling (MaxDiff) methodology was used to establish importance. Respondents were presented with four attributes at a time and are asked to indicate what to them is the 'most important' and 'least important' factor when deciding whether or not to eat pulses.

The isotherm below provides a visual representation of the most important and least important factors, along with the relative ranking of the other factors evaluated.

Health benefits and taste are the two most important factors when deciding whether or not to eat pulses. Being a source of protein and increasing fibre intake are also important, though relatively lower on the scale. It is notable, however, that being a less expensive protein is not a top factor, nor are digestive considerations. Choosing vegetarian foods more often and being part of a traditional diet are rated as the two least important factors when deciding whether or not to eat pulses.



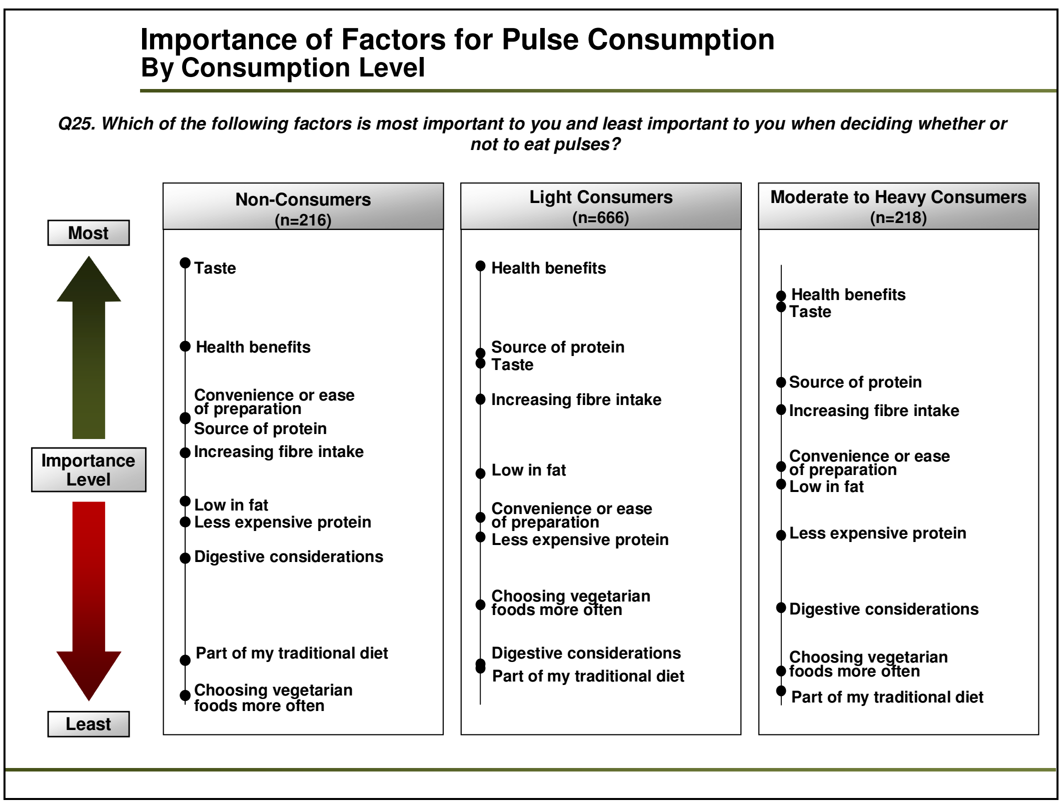
Importance of Factors for Pulse Consumption by Consumption Level

The importance of factors when deciding whether or not to eat pulses varies by consumption level. The figure below shows the relative importance of each factor within the non-consumer, light consumer and moderate to heavy consumer groups. When reviewing the data, it is important to keep in mind that the relative position of factors should not be compared across groups (e.g. the data does not say that health benefits are more important for moderate consumers than for moderate to heavy consumers).

While health benefits and taste are important factors across the board, interesting differences emerge when the data are analyzed by consumption level.

For non-consumers of pulses, taste is the single most important decision factor regarding the consumption of pulses, with health benefits a distant second, and convenience or ease of preparation and being a source of protein tied for third. In contrast, among light consumers, health benefits are the most important factor, while being a source of protein, taste and increasing fibre intake in the next tier of factors. For moderate to heavy consumers, both health benefits and taste are key decision factors, with being a source of protein and increasing fibre intake also important but relatively lower on the scale.

It is notable, that compared to the importance of protein and fibre, the low fat content of pulses is a relatively less important factor.



While even moderate to heavy consumers rank pulses being part of their **traditional diet** as the least important factor when deciding whether or not to eat pulses, both quantitative and qualitative research findings suggest that there is a relationship. Quantitatively, agreement with the statement 'pulses are part of my traditional diet' increases significantly as consumption increases. That is, 8% of non-consumers agree versus 33% of light consumers versus 58% of moderate to heavy consumers.

Focus group findings further lend support to the relationship between exposure to pulses growing up and pulse consumption as adults. When regular consumers of pulses were asked how they knew how to cook them, some pointed to their interest in different kinds of foods and simply trying pulses and experimenting, however, many indicated they had eaten pulses growing up. It is important to note that this was not limited to participants with Asian, African or Latin backgrounds.

"I was brought up eating those types of foods."

"I remember them growing up…we were pretty diverse…my mom was into making interesting stuff."

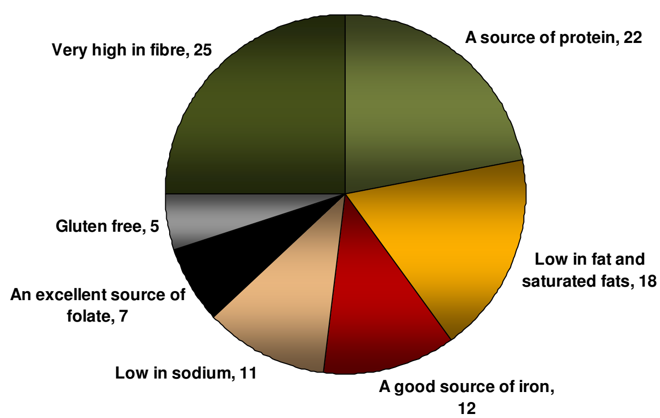
Nutritional Information Influencing the Purchase of a Processed Pulse Product

Respondents were shown seven nutritional facts that could be on the label of a processed food product containing pulses, and asked to allocate 100 points between the facts, depending on the influence of each on their decision to purchase the product. No specific product was specified, rather respondents were told it could be a number of things such as pasta, crackers, cereal or a snack item.

High fibre and being a source of protein are stronger factors than low fat content, with regard to nutritional factors contributing to the selection of a processed food product containing pulses. It is notable that 'low in sodium' is not a significant influence, and that very few respondents allocate points to folate. Given that gluten free is a niche market, it is not surprising it receives the lowest number of points.

Nutritional Information Influencing the Purchase of a Processed Pulse Product

Q26. To what degree would each of the following factors influence your decision to purchase a processed food product containing pulses? The product could be a number of things such as pasta, crackers, cereal or a snack item. Please assume you have 100 points and can allocate 0 to 100 points to each factor.



Base: All respondents (n=1,100)

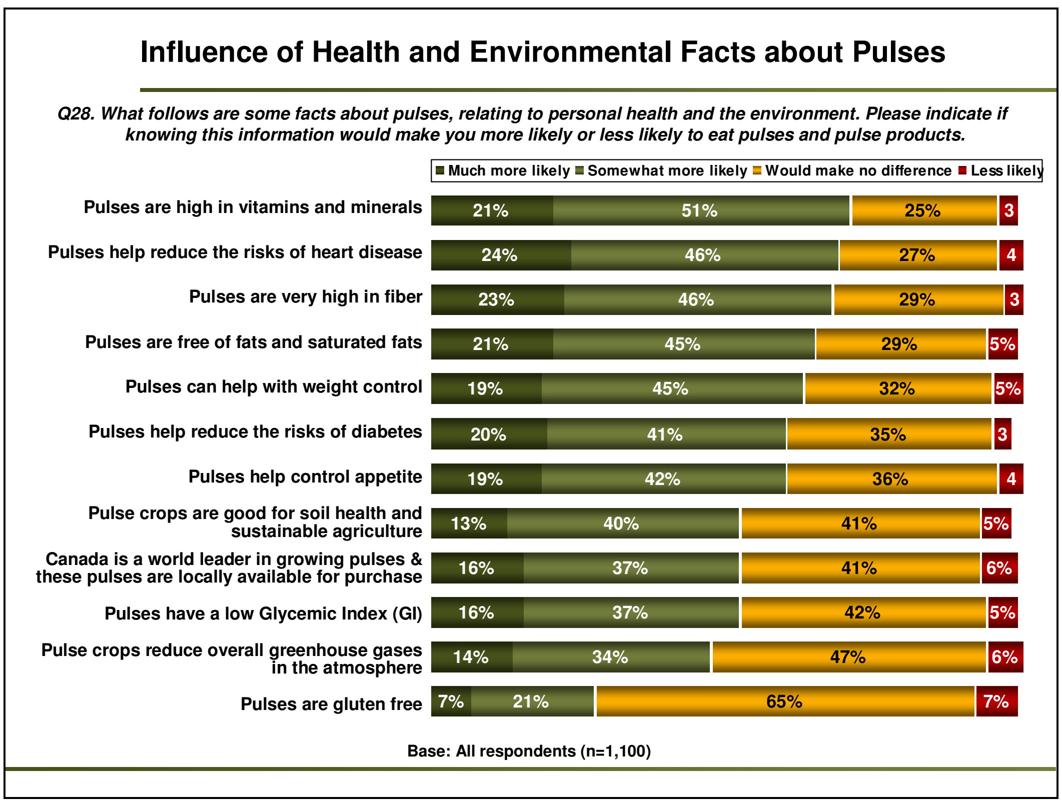
Influence of Health and Environmental Facts about Pulses

Communicating a number of facts related to personal health could increase the likelihood of pulse consumption among Canadians; environmental benefits, however, would have a lesser impact.

For eight of the nine health facts tested – the exception being that pulses are gluten free – the majority of Canadians say knowing each fact would make them more likely to eat pulses and pulse products. One should note, however, that actual impact of these facts might be somewhat tempered given that the percentage of *much more* likely responses is low, with most saying they would be only *somewhat* more likely to eat pulses and pulse products.

About seven-in-ten Canadians say knowing pulses are high in vitamins and minerals, help reduce the risk of heart disease and are high in fiber would make them more likely to eat pulses and pulse products. Following closely would be knowledge that pulses are free of fats and saturated fats (66%) and that they can help with weight control (64%). And, about six-in-ten say knowing that pulses help reduce the risks of diabetes (61%) and help control appetite (61%) would also increase their likelihood of eating pulses. The only health facts that do not resonate strongly are that pulses have a low Glycemic Index (53% more likely) and that they are gluten free (28% more likely).

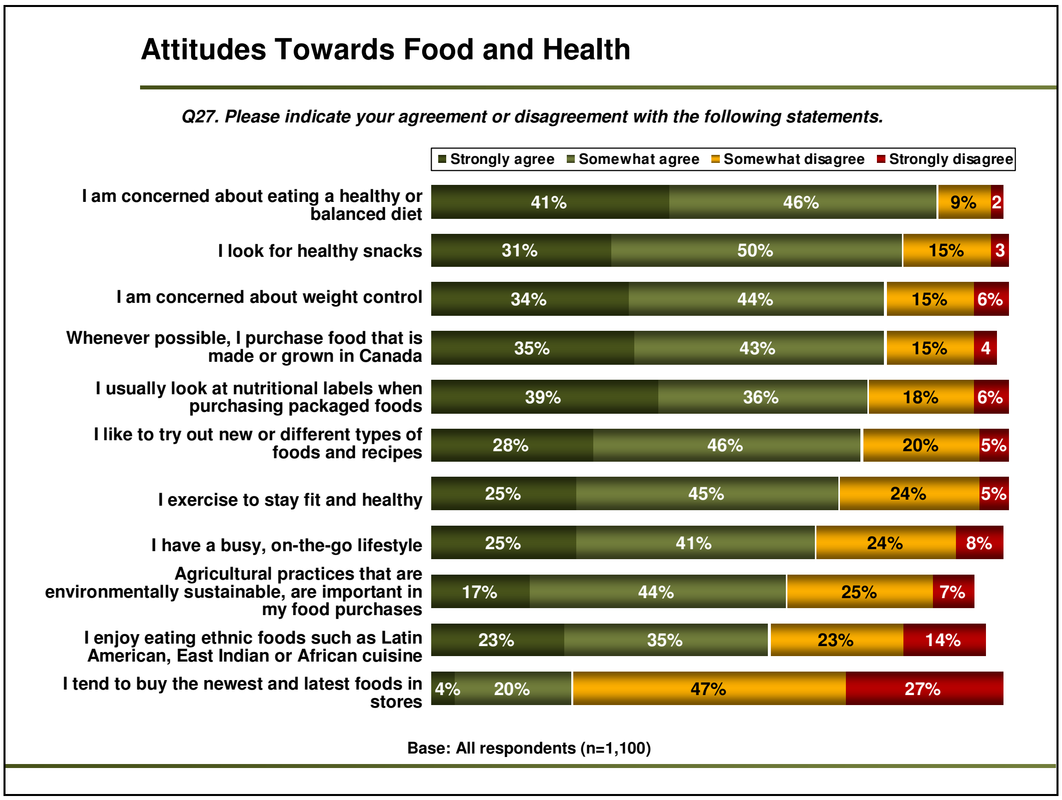
About half of Canadians say knowing each of the three environmental facts would make them more likely to eat pulses.



Attitudes towards Food and Health

Canadians' attitudes towards food and health indicate that the majority are concerned about maintaining their health (i.e. eating a healthy diet and weight control), and take actions to do so (i.e. look for healthy snacks, look at nutritional labels and exercise). Given the nutritional and health benefits of pulses, this is a positive for the pulse industry. So too is the finding that three-in-four Canadians like to try out new or different types of foods and recipes, and that about six-in-ten enjoy eating ethnic foods traditionally high in pulses.

It is interesting that the 'made/ grown in Canada label' is a consideration in food purchases for a strong majority of Canadians, while sustainable agricultural practices are comparatively less important.

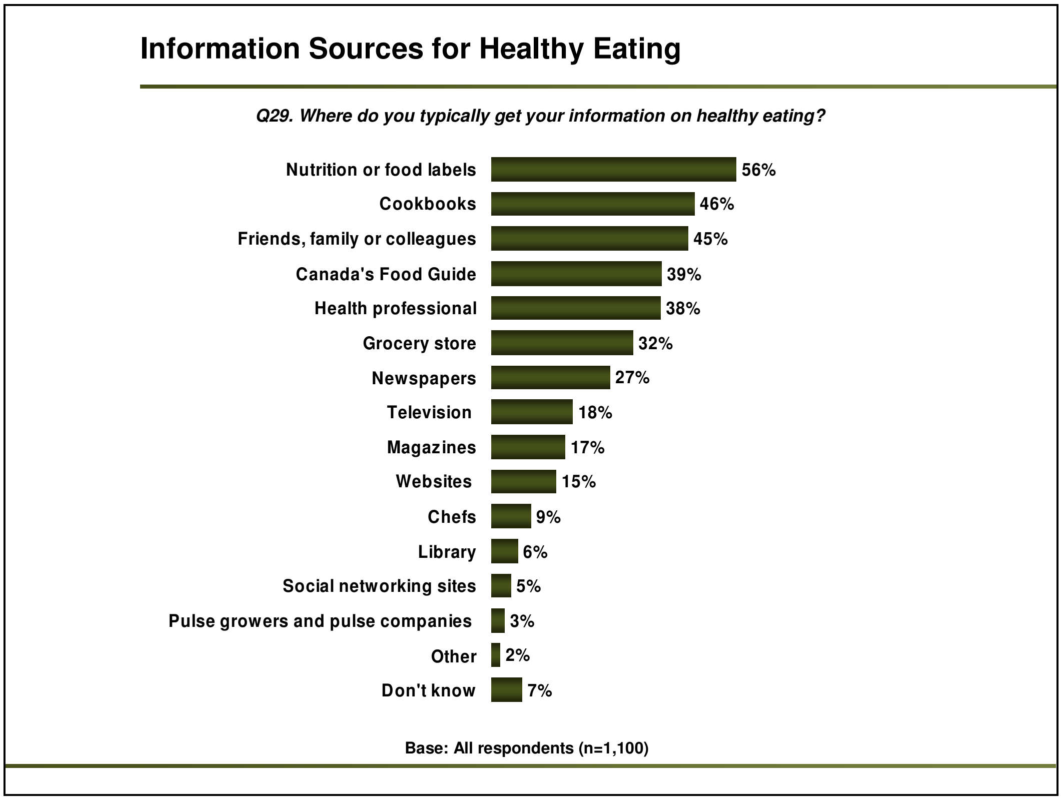


INFORMATION SOURCES

Information Sources for Healthy Eating

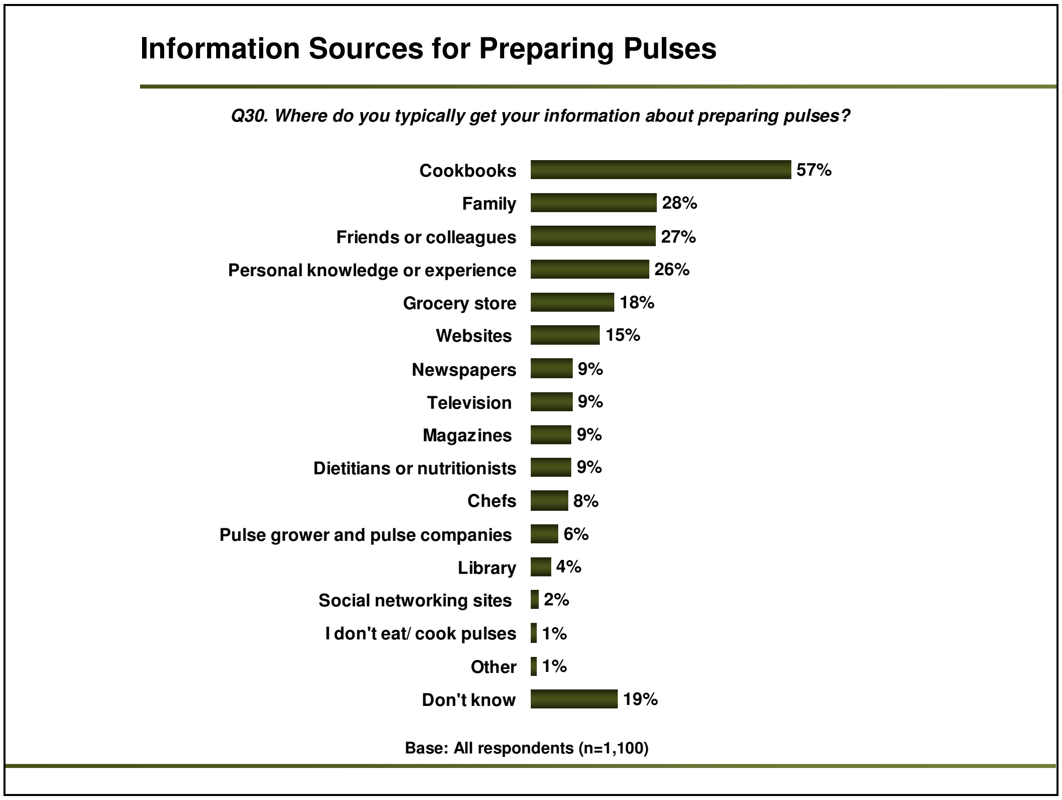
Respondents were provided with a list of information sources and asked to indicate where they typically get their information on healthy eating.

Canadians get information about healthy eating from a variety of sources. The most frequent sources selected were nutrition or food labels (56%), cookbooks (46%), friends, family or colleagues (45%), Canada's Food Guide (39%) and health professionals (38%). Grocery stores (32%) and newspapers (27%) are also selected by more than one-in-four respondents, while mentions of other traditional media are comparatively lower.



Information Sources for Preparing Pulses

Cookbooks are the most frequently selected information source for getting information about preparing pulses. Cookbooks (57%) are followed by family (28%), friends or colleagues (27%) and personal experience (26%). Grocery stores (18%) and websites (15%) are only other channels selected by more than one-in-ten respondents.



It is important to keep in mind that survey respondents were asked where they typically get information (i.e. currently) about preparing pulses, but *not* where they typically get recipes or where they would go to find recipes with pulses.

When focus group participants were asked where they got recipes, cookbooks and family were also frequent mentions, with family (particularly mothers) being a key source of information. Many also mentioned magazines and newspapers as sources for recipes. A few mentioned they watched food shows on television, and that they would seek out interesting recipes they saw online.

When asked where they would go to find new recipes, family again emerged as a key 'trusted' resource. Apart from family, the Internet was the clear choice. It is notable that use of Google, rather than specific recipe or food websites, is the predominant means of looking up recipes.

MARKET SEGMENTATION

About Segmentation

Segmentation seeks to identify homogeneous groups of consumers to effectively target via marketing – this can include product development, pricing, distribution and/or promotion. Once like-minded, or attitudinally similar, people are found these are grouped in segments and then the behavioural and demographic differences are analyzed in order to profile them and 'see' them in an everyday life context.

Segments are almost always a matter of degree. While there can be one or two 'dominant'segments, they are very rarely black and white. As one might expect with attitudes, there is always a prevailing trend and within it, there are segments defined by the shade of gray that they occupy within that trend.

For this reason, segmentation is a qualitative quantitative tool. This analysis adds richness and texture to the numbers by grouping them into segments. As a result, it is as much an art as it is a science and relies on the ability to see trends or themes running through the data. Just as a mosaic is hard to see by looking at one tile, one cannot 'see' a segment by looking at an individual data point.

The pulse segmentation utilized a statistical technique called K-means. This is the most traditional technique and is useful for attitudinal segmentations where there are very distinct segments of approximately equal size. The **segmentation solution was based on responses to a total of 21 attitudinal statements**. These statements listed in rank order of importance to the segmentation – that is the degree to which each statement differentiates between segments – are:

- I don't know how to cook or prepare pulses
- I don't think about including pulses in meal planning or preparation
- I like the taste of pulses
- My family likes eating pulses
- I usually look at nutritional labels when purchasing packaged foods
- I am concerned about eating a healthy or balanced diet
- I look for healthy snacks
- I am trying to choose vegetarian meals more often
- I like to try out new or different types of foods and recipes
- Pulses are part of my traditional diet
- I enjoy eating ethnic foods such as Latin American, East Indian or African cuisine
- Pulses are convenient and easy to prepare
- Agricultural practices that are environmentally sustainable, are important in my food purchases
- Pulses are an affordable source of protein
- I am concerned about weight control
- Pulses are nutritious
- Whenever possible, I purchase food that is made or grown in Canada
- I tend to buy the newest and latest foods in stores

- I exercise to stay fit and healthy
- I have a busy, on-the-go lifestyle
- Eating pulses causes gas, bloating or digestive problems

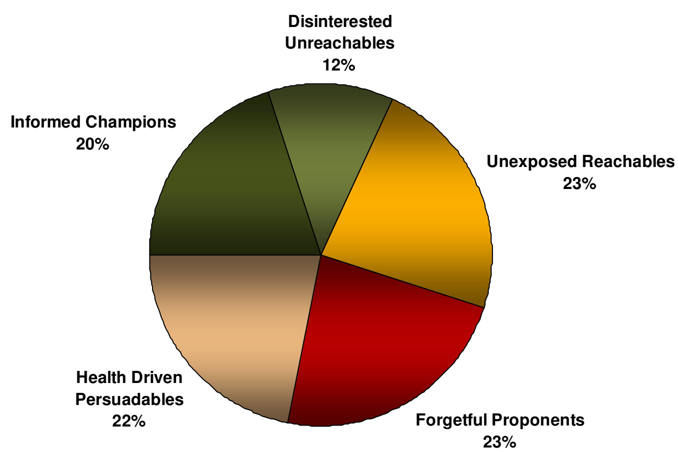
Ipsos Reid studied a number of possible segment solutions, and looked at the main drivers of the segments as well as how each solution is reflected in the other. The segment solution that presented the most 'logical' way of looking at this market was the one chosen, in this case, a five-segment solution.

Once the segment solution was chosen, each segment was analyzed as a unique population; Ipsos Reid looked at how each segment answered all the questions in the survey to develop a comprehensive segment profile. This is the process by which the 'personality' of each segment is clarified. The results of this process are presented in detail in this section of the report.

Overview of the Segments

Based on attitudes towards pulse consumption, as well as attitudes towards food and health, Canadians can be segmented into five distinct groups. Positioned at one end of the spectrum are the 'Informed Champions' who embrace pulses and all their benefits, while at the opposite end are the 'Disinterested Unreachables,' a group who are unlikely to make pulses a regular part of their diet. The remaining segments, the 'Unexposed Reachables,' the 'Forgetful Proponents' and the 'Health Driven Persuadables' fall between the two extremes.

Pulse Consumer Segments



Base: All respondents (n=1,100)

What follows is a brief overview of each segment. Graphs and tables comparing the segments on key variables can be found on pages 65 to 73.

Informed Champions (20%)
Pulses are superfoods

Informed Champions embrace virtually all aspects of pulses from taste, to health benefits to environmental benefits.

Informed Champions are the heaviest consumers of pulses among Canadians. One-half (51%) consume one or more types of pulses on a weekly basis, while the other half (48%) consume one or more types of pulses on a monthly basis. They also have a high incidence of past six months consumption of pulses at restaurants (49%) and among restaurant pulse consumers, they report the highest monthly consumption at ethnic restaurants (48%).

Key Differentiators – Informed Champions are differentiated from other segments on many dimensions; what follows are key differentiating factors.

Attitudes Towards Pulses

- They like the taste of pulses (99%);
- Their family likes eating pulses (91%);
- They are trying to choose vegetarian meals more often (72%); and,
- Pulses are part of their traditional diet (68%).

Attitudes Towards Food and Health

- They usually look at nutritional labels when purchasing packaged foods (96%);
- They are concerned about eating a healthy diet (99%);
- They like to try out new or different types of foods and recipes (97%); and,
- They enjoy eating ethnic foods such as Latin American, East Indian or African cuisine (84%).

Other Defining Characteristics

- Informed Champions are extremely health conscious.
- They are also environmentally engaged – environmentally sustainable agricultural practices are important in food purchases (85%).
- Further, when possible, they purchase food made or grown in Canada (91%).
- Health benefits are clearly the most important factors when deciding whether or not to eat pulses.
- Information about both health and environmental benefits would make them more likely to eat pulses.

Demographics

- Highest incidence of having a vegetarian or vegan in household (12%);
- Higher female (61%);

- Highest education (33% university degree, 48% post-secondary);
- Highest representation in British Columbia (29%), and,
- Half live in two person households (53%).

Marketing and Messaging – Given their already high levels of pulse consumption and positive attitudes towards pulses, food and health Informed Champions are not a key target for marketing efforts. That being said, it is likely that messages targeting other segments will reach Informed Champions and will resonate strongly.

Disinterested Unreachables (12%)
I don't give much thought to food and health

Disinterested Unreachables are disengaged when it comes to food and health.

They are on the low end of the pulse consumption spectrum with close to half (46%) indicating they have not eaten any pulses in the past six months, and another 46% indicating they have eaten one or more pulses on a monthly basis in the past six months; just 8% are classified as moderate to heavy pulse consumers. While they have a low incidence of past six months pulse consumption at restaurants (29%), among restaurant pulse consumers, they have a high incidence of consumption at fast food restaurants (35%).

Key Differentiators – Disinterested Unreachables are differentiated from other segments on the following key factors.

Attitudes Towards Pulses

- Four-in-ten (37%) say they do not like the taste of pulses, while 16% say they don't know if they do, and 10% say it does not apply to them (likely because they do not eat pulses).
- Four-in-ten (42%) also say their family does not like eating pulses, while 16% say they don't know and 14% say it does not apply to them.
- The majority (61%) are not trying to choose vegetarian meals more often (and 27% respond don't know or not applicable).
- Six-in-ten (60%) also indicate pulses not part of their traditional diet (and 27% respond don't know or not applicable).

Attitudes Towards Food and Health

- They do not usually look at nutritional labels when purchasing packaged foods (86%);
- They do not look for healthy snacks (69%);
- They are not concerned about weight control (64%);
- The are not concerned about eating a healthy diet (56%); and,
- They do not like to try out new or different types of foods and recipes (58%)

Other Defining Characteristics

- Taste is by far the most important factor when deciding whether or not to eat pulses.
- Information about health and environmental benefits would not make most more likely to eat pulses.

Demographics

- Highest incidence of being underweight (14%);
- Lowest incidence of being advised by a health professional that weight may cause problems (19%);
- Low incidence of heart disease or high blood cholesterol levels in household (16%);
- Majority male (56%);
- Youngest segment (average age 43 years);
- Less educated (15% university degree); and,
- Three-in-ten live alone.

Marketing and Messaging – Disinterested Unreachables are not an attractive segment to target. As a group, very little would convince them to incorporate pulses in their diet; communicating recipe ideas, health benefits or environmental benefits are all unlikely to have an impact.

Unexposed Reachables (23%)

I don't like the taste of pulses and I don't know how to cook with them, but if they are healthy and help with weight control…

For Unexposed Reachables, pulses generally fall outside their consideration with regards to meal planning or preparation. While they have not had a great deal of exposure to pulses, the health benefits of pulses resonate strongly.

Unexposed Reachables are on the low end of the pulse consumption spectrum with 44% indicating they have not eaten any pulses in the past six months, and 53% indicating they have eaten one or more pulses only on a monthly basis in the past six months; just 4% are classified as moderate to heavy pulse consumers. They have a low incidence of past six months pulse consumption at restaurants (28%), and the lowest frequency of consumption at all restaurant types.

Key Differentiators – Unexposed Reachables are differentiated from other segments on the following dimensions.

Attitudes Towards Pulses

- They do not think of including pulses in meal planning or preparation (82%);
- They do not know how to cook or prepare pulses (75%);
- More than half (54%)do not like the taste of pulses (and 17% say don't know or not applicable);
- Four-in-ten (43%) say their family does not like eating pulses (while 29% say don't know or not applicable);
- Pulses are not part of their traditional diet (87%); and,
- They are not trying to choose vegetarian meals more often (85%).

Attitudes Towards Food and Health

- They are concerned about weight control (90%);

- They are concerned about eating a healthy diet (94%);
- They look for healthy snacks (88%); but,
- They do not enjoy eating ethnic foods such as Latin American, East Indian or African cuisine (67%).

Other Defining Characteristics

- Taste is the most important factor when deciding whether or not to eat pulses.
- Information about health benefits would make the majority more likely to eat pulses.

Demographics

- Unexposed Reachables are not differentiated by age, gender, education or household income.
- British Columbia has the lowest percentage of Unexposed Reachables (13%).
- The only other unique demographic factor is that they have the highest incidence of being born and raised in Canada (93%)

Marketing and Messaging – Unexposed Reachables should be a primary target segment as current consumption is low, but the main barrier is lack of exposure, and communicating information about the health benefits could effectively drive them to increase their pulse consumption. Teaching them how to cook a variety of 'great tasting' basic recipes (i.e. not ethnic or vegetarian options), and focusing on the health benefits of pulses – including weight management – should be the focus of targeted communications.

Forgetful Proponents (23%)

I really do like pulses, but need someone to jog my memory and give me new recipe ideas

Forgetful proponents have the second highest pulse consumption among the segments – they enjoy pulses, but need to be reminded to include them in their diet more often.

Just under one-quarter (23%) consume one or more types of pulses on a weekly basis, while seven-in-ten (70%) consume one or more types of pulses on a monthly basis; just 7% fall in the non-consumer category. They also have a high incidence of past six months consumption of pulses at restaurants (47%).

Key Differentiators – Forgetful Proponents are differentiated from other segments on the following key factors.

Attitudes Towards Pulses

- They like the taste of pulses (92%);
- Their family likes eating pulses (74%);
- They know how to cook or prepare pulses (85%);
- They have the second highest incidence of pulses are part of traditional diet (49%); however,
- Just under half (45%) don't think about including pulses in meal planning or preparation

Attitudes Towards Food and Health

- They like to try out new or different types of foods and recipes (74%); and,
- Over half (54%) enjoy eating ethnic foods such as Latin American, East Indian and African cuisine.

Other Defining Characteristics

- Top-of-mind, one-in-five Forgetful Proponents cite wanting 'variety in my diet' as a reason for eating pulses more often.
- Taste and health benefits are the top two factors when deciding whether or not to eat pulses
- High fibre and protein content are both important.
- Information about health benefits would make the majority more likely to eat pulses.

Demographics

- The majority are male (55%); and,
- They tend to be older – with the lowest percentage of 18 to 34 year olds (20%) and an average age 49 years.
- Lowest representation in Atlantic Canada (14%).

Marketing and Messaging – Given that 70% of Forgetful Proponents are monthly (light) pulse consumers, there is an opportunity to move them to weekly (moderate to heavy) consumption, particularly given that the vast majority like pulses. Teaching them the wide variety of ways pulses can be used, and providing new and different recipes, could increase their pulse consumption. As they like to try out different foods and recipes, as well as enjoy ethnic foods, there are no limits to the types of recipes that might appeal. Weekly emails of pulse recipes could appeal to this segment. Reminding them about the fibre and protein content of pulses, as well as other health benefits, could also serve as motivators.

Health Driven Persuadables (22%)

Tell me how! I like pulses, I find the health and environmental benefits motivating, but I don't know how to cook them

The taste, health benefits and environmental benefits of pulses all appeal to Health Driven Persuadables – moving from light to moderate consumption would not be a big stretch.

This segment is largely comprised of light consumers – three-quarters of Health Driven Persuadables indicate consuming one or more types of pulses on a monthly basis. The remaining one-quarter are split between weekly consumers (13%) and non-consumers (12%). They have high past 6 months pulse consumption at restaurants, and among restaurant pulse consumers, report moderate consumption at ethnic restaurants but lower consumption at fast food and non-ethnic restaurants.

Key Differentiators – While similar to Forgetful Proponents with regard to pulse consumption, Health Driven Persuadables are differentiated from other segments on a number of dimensions.

Attitudes Towards Pulses

- They don't think about including pulses in meal planning or preparation (86%);
- They don't know how to cook or prepare pulses (74%);
- Most like the taste of pulses (77%);
- Comparatively fewer say their family likes eating pulses (59%); and,
- Half are trying to choose vegetarian meals more often (48%).

Attitudes Towards Food and Health

- They usually look at nutritional labels when purchasing packaged foods (90%);
- They look for healthy snacks (94%);
- They like to try out new or different types of foods and recipes (94%);
- They enjoy eating ethnic foods such as Latin American, East Indian and African cuisine (81%); and,
- They have a busy, on-the-go lifestyle (79%).

Other Defining Characteristics

- As their name implies, Health Driven Persuadables are extremely health conscious.
- They are environmentally engaged – environmentally sustainable agricultural practices are important in food purchases (85%).
- When possible, they purchase food made or grown in Canada (91%),
- Health benefits the most important factors when deciding whether or not to eat pulses.
- Information about both health and environmental benefits would make them more likely to eat pulses.

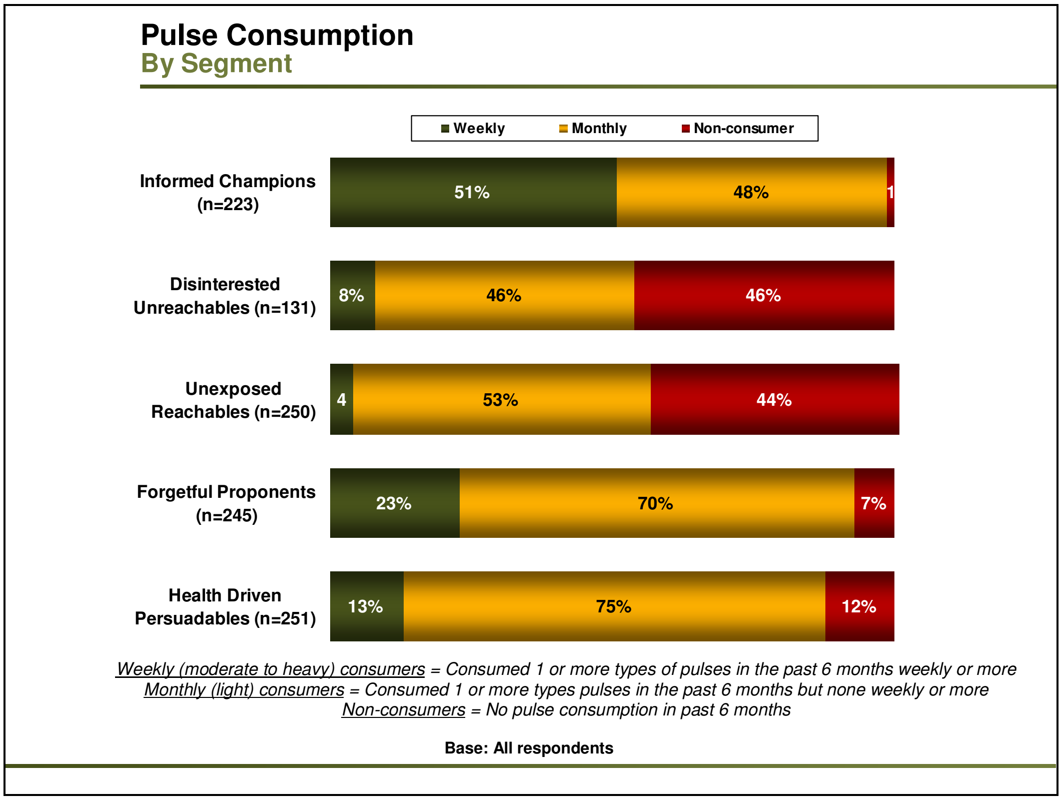
Demographics

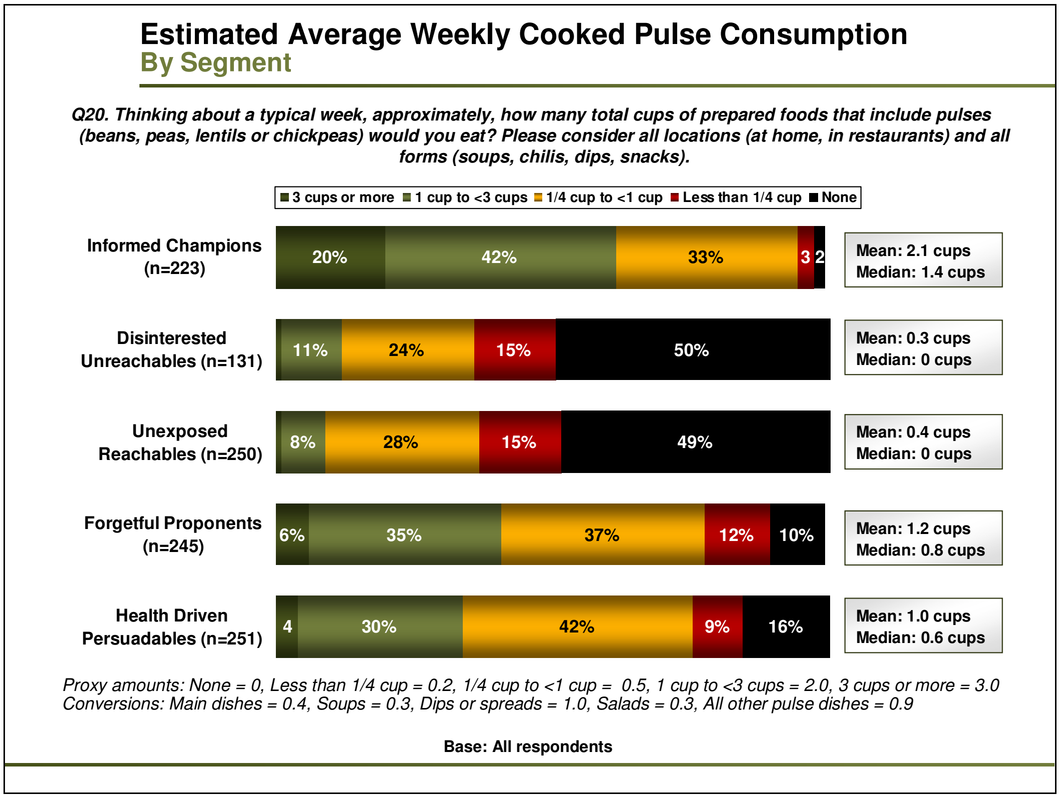
- Health Driven Persuadables are not differentiated by age, gender or education.
- They are, however, the segment with the highest percentage (22%) of people in the $100K+ income bracket.

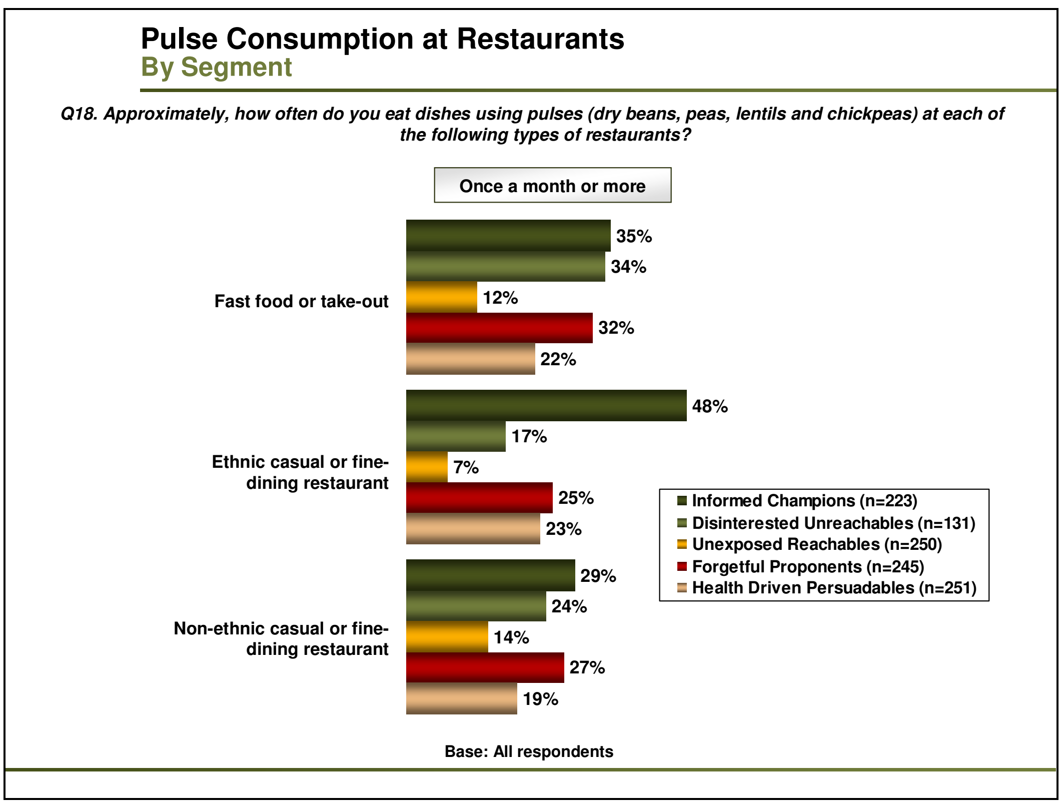
Marketing and Messaging – Given that the main barriers to greater consumption of pulses are not knowing how to cook or prepare them, and not thinking about them in meal planning, persuading consumers in this segment to increase their pulse consumption seems quite feasible. Particularly since they like trying new and different foods and recipes, they like ethnic foods, and many are trying to choose vegetarian meals more often. To offset their busy lifestyle, quick recipes or '5-ingredient' recipes might be particularly appealing. Teaching them how to cook pulses and providing a variety of recipes, along with communicating the health benefits of pulses, should be the primary focus when targeting this segment – with some mention of environmental benefits.

Comparison of Segments on Key Variables

The following graphs and tables provide a comparison of the segments on key variables.




Estimated Average Weekly Cooked Pulse Consumption
By Segment
Q20. Thinking about a typical week, approximately, how many total cups of prepared foods that include pulses (beans, peas, lentils or chickpeas) would you eat? Please consider all locations (at home, in restaurants) and all forms (soups, chilis, dips, snacks).
3 cups or more
1 cup to <3 cups
1/4 cup to <1 cup
Less than 1/4 cup
None
Informed Champions (n=223)
20%
42%
33%
3
2
Mean: 2.1 cups
Median: 1.4 cups
Disinterested Unreachables (n=131)
11%
24%
15%
50%
Mean: 0.3 cups
Median: 0 cups
Unexposed Reachables (n=250)
8%
28%
15%
49%
Mean: 0.4 cups
Median: 0 cups
Forgetful Proponents (n=245)
6%
35%
37%
12%
10%
Mean: 1.2 cups
Median: 0.8 cups
Health Driven Persuadables (n=251)
4
30%
42%
9%
16%
Mean: 1.0 cups
Median: 0.6 cups
Proxy amounts: None = 0, Less than 1/4 cup = 0.2, 1/4 cup to <1 cup = 0.5, 1 cup to <3 cups = 2.0, 3 cups or more = 3.0
Conversions: Main dishes = 0.4, Soups = 0.3, Dips or spreads = 1.0, Salads = 0.3, All other pulse dishes = 0.9
Base: All respondents


Pulse Consumption at Restaurants
By Segment
Q18. Approximately, how often do you eat dishes using pulses (dry beans, peas, lentils and chickpeas) at each of the following types of restaurants?
Once a month or more
Fast food or take-out
35%
34%
12%
32%
22%
Ethnic casual or fine-dining restaurant
48%
17%
7%
25%
23%
Non-ethnic casual or fine-dining restaurant
29%
24%
14%
27%
19%
Informed Champions (n=223)
Disinterested Unreachables (n=131)
Unexposed Reachables (n=250)
Forgetful Proponents (n=245)
Health Driven Persuadables (n=251)
Base: All respondents

Attitudes Towards Pulses
By Segment

Q24. Please indicate your agreement or disagreement with the following statements.

% Agree	Informed Champions (n=223)	Disinterested Unreachables (n=131)	Unexposed Reachables (n=250)	Forgetful Proponents (n=245)	Health Driven Persuadables (n=251)
I don't know how to cook or prepare pulses	**6%**	47%	**75%**	**11%**	**74%**
I don't think about including pulses in meal planning or preparation	**10%**	66%	**82%**	**45%**	**86%**
I like the taste of pulses	**99%**	**37%**	**30%**	**92%**	77%
My family likes eating pulses	**91%**	**28%**	**11%**	**74%**	59%
I am trying to choose vegetarian meals more often	**72%**	**12%**	**9%**	16%	**48%**
Pulses are part of my traditional diet	**68%**	**12%**	**4%**	**49%**	26%
Pulses are nutritious	**99%**	**61%**	**80%**	**98%**	88%
Pulses are convenient and easy to prepare	**90%**	**37%**	**23%**	**85%**	56%
Pulses are an affordable source of protein	**100%**	**55%**	**67%**	**94%**	82%
Eating pulses causes gas, bloating or digestive problems	50%	**37%**	57%	59%	61%

Bolded numbers are significantly different (lower / higher) than at least 3 other segments

Base: All respondents

Attitudes Towards Food and Health
By Segment

Q27. Please indicate your agreement or disagreement with the following statements.

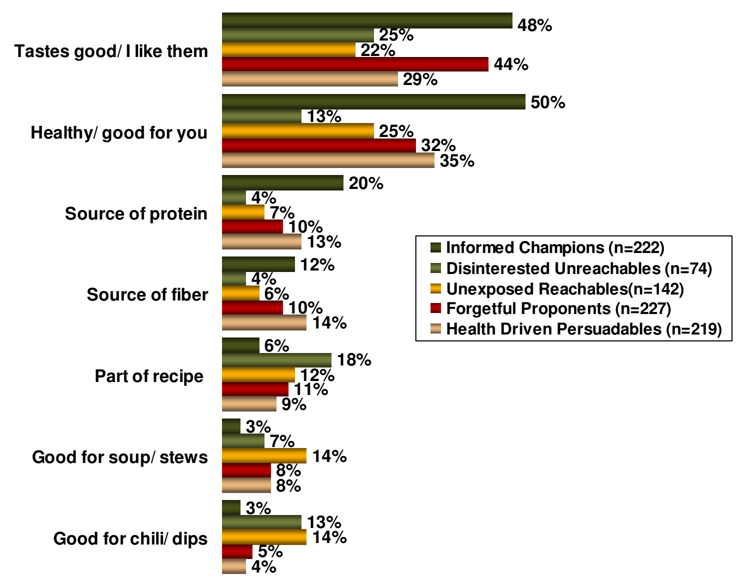
% Agree	Informed Champions (n=223)	Disinterested Unreachables (n=131)	Unexposed Reachables (n=250)	Forgetful Proponents (n=245)	Health Driven Persuadables (n=251)
I usually look at nutritional labels when purchasing packaged foods	**96%**	**8%**	75%	73%	**90%**
I am concerned about eating a healthy or balanced diet	**99%**	**37%**	94%	89%	96%
I look for healthy snacks	**97%**	**26%**	88%	76%	**94%**
I enjoy eating ethnic foods such as Latin American, East Indian or African cuisine	**84%**	**36%**	**30%**	54%	**81%**
Agricultural practices that are environmentally sustainable, are important in my food purchases	**85%**	**28%**	48%	47%	**85%**
I am concerned about weight control	87%	**31%**	90%	**72%**	87%
I tend to buy the newest and latest foods in stores	**31%**	9%	12%	14%	**46%**
Whenever possible, I purchase food that is made or grown in Canada	**91%**	**49%**	75%	72%	**91%**
I like to try out new or different types of foods and recipes	**97%**	**36%**	**55%**	74%	**94%**
I exercise to stay fit and healthy	**85%**	**41%**	65%	63%	**81%**
I have a busy, on-the-go lifestyle	69%	**54%**	67%	**54%**	**79%**

Bolded numbers are significantly different (lower / higher) than at least 3 other segments

Base: All respondents

Reasons for Eating Pulses
By Segment

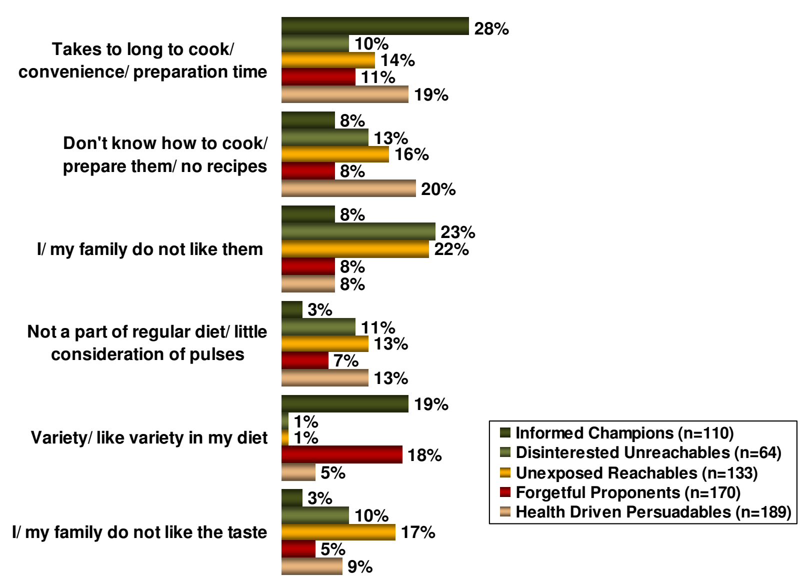
Q22. What are the main reasons you eat pulses (dry beans, peas, lentils and chickpeas)?



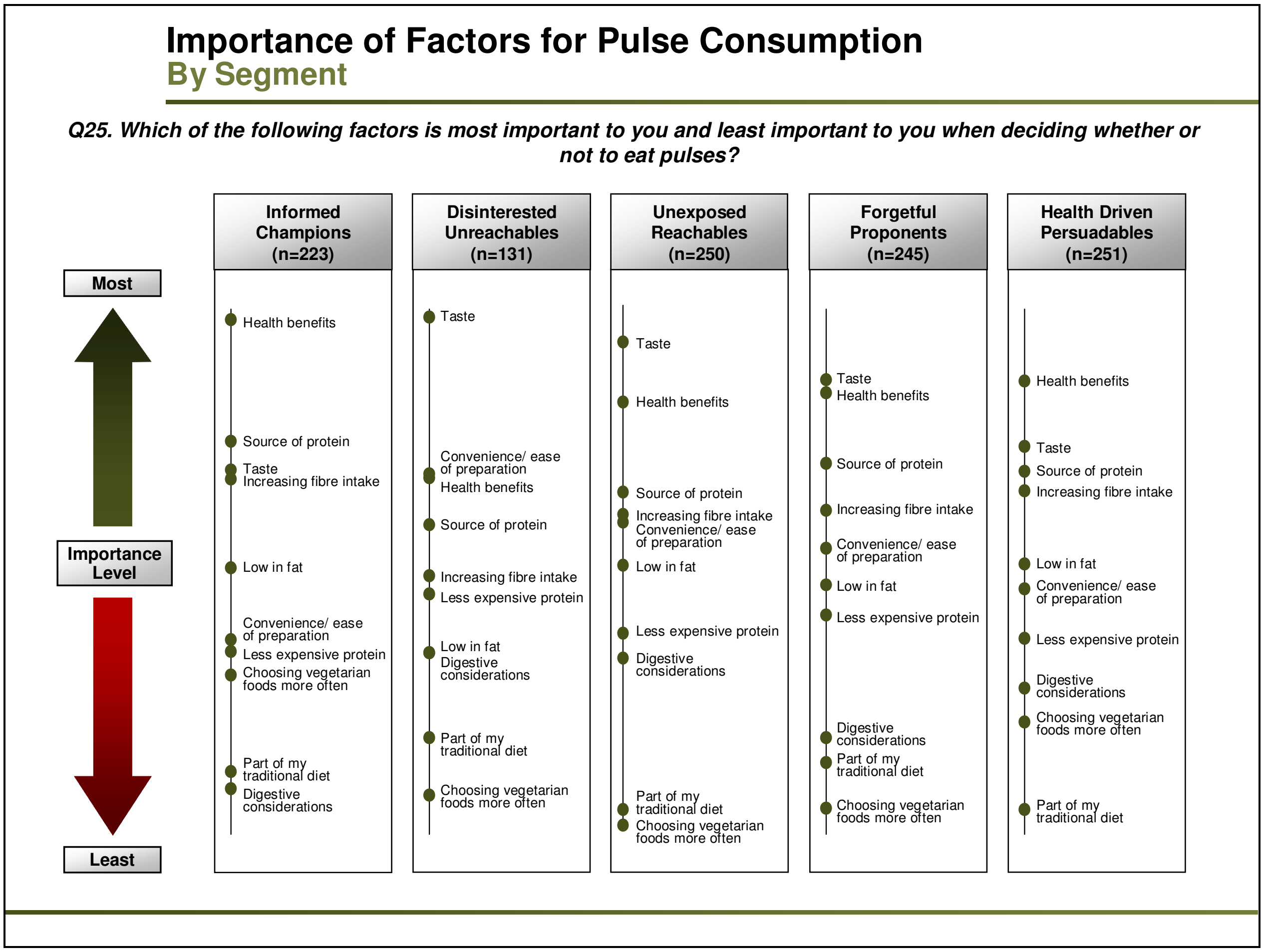
Base: Light, moderate and heavy consumers

Reasons for Not Eating Pulses More Often
By Segment

Q23. What are the main reasons you don't eat pulses more often (dry beans, peas, lentils and chickpeas)?



Base: Light consumers


Importance of Factors for Pulse Consumption
By Segment
Q25. Which of the following factors is most important to you and least important to you when deciding whether or not to eat pulses?
Most
Importance Level
Least
Informed Champions (n=223)
Health benefits
Source of protein
Taste
Increasing fibre intake
Low in fat
Convenience/ ease of preparation
Less expensive protein
Choosing vegetarian foods more often
Part of my traditional diet
Digestive considerations
Disinterested Unreachables (n=131)
Taste
Convenience/ ease of preparation
Health benefits
Source of protein
Increasing fibre intake
Less expensive protein
Low in fat
Digestive considerations
Part of my traditional diet
Choosing vegetarian foods more often
Unexposed Reachables (n=250)
Taste
Health benefits
Source of protein
Increasing fibre intake
Convenience/ ease of preparation
Low in fat
Less expensive protein
Digestive considerations
Part of my traditional diet
Choosing vegetarian foods more often
Forgetful Proponents (n=245)
Taste
Health benefits
Source of protein
Increasing fibre intake
Convenience/ ease of preparation
Low in fat
Less expensive protein
Digestive considerations
Part of my traditional diet
Choosing vegetarian foods more often
Health Driven Persuadables (n=251)
Health benefits
Taste
Source of protein
Increasing fibre intake
Low in fat
Convenience/ ease of preparation
Less expensive protein
Digestive considerations
Choosing vegetarian foods more often
Part of my traditional diet

Nutritional Information Influencing the Purchase of a Processed Pulse Product
By Segment

Q26. To what degree would each of the following factors influence your decision to purchase a processed food product containing pulses? The product could be a number of things such as pasta, crackers, cereal or a snack item. Please assume you have 100 points and can allocate 0 to 100 points to each factor.

	Informed Champions (n=223)	Disinterested Unreachables (n=131)	Unexposed Reachables (n=250)	Forgetful Proponents (n=245)	Health Driven Persuadables (n=251)
Very high in fibre	23.6	25.3	26.1	27.2	23.5
A source of protein	22.3	23.7	**19**	23.6	21.7
Low in fat and saturated fats	17.1	**14.5**	**20**	16.8	19
A good source of iron	12.1	**16.1**	12.5	11	11.9
Low in sodium	11.3	8.9	12.9	11.2	10.8
An excellent source of folate	**8.8**	6.3	5.8	6.3	7.6
Gluten free	4.7	5.2	3.8	3.8	5.5

Bolded numbers are significantly different (lower / higher) than at least 3 other segments

Base: All respondents

Influence of Health and Environmental Facts about Pulses
By Segment

% More Likely	Informed Champions (n=223)	Disinterested Unreachables (n=131)	Unexposed Reachables (n=250)	Forgetful Proponents (n=245)	Health Driven Persuadables (n=251)
Pulses are high in vitamins and minerals	**89%**	**48%**	68%	72%	74%
Pulses are free of fats and saturated fats	**86%**	**29%**	63%	66%	72%
Pulses help reduce the risks of heart disease	**84%**	**42%**	65%	72%	**73%**
Pulses are very high in fiber	**83%**	**38%**	67%	67%	72%
Pulses help reduce the risks of diabetes	**80%**	**32%**	**55%**	64%	64%
Pulses can help with weight control	**79%**	**32%**	66%	60%	69%
Pulses help control appetite	**78%**	**29%**	61%	56%	66%
Pulses have a low Glycemic Index (GI)	**76%**	**23%**	47%	50%	57%
Pulse crops are good for soil health and sustainable agriculture	**76%**	**21%**	**40%**	53%	**65%**
Canada is a world leader in growing pulses and these pulses are locally available for purchase	**76%**	**23%**	**39%**	52%	**66%**
Pulse crops reduce overall greenhouse gases in the atmosphere	**68%**	**25%**	**32%**	44%	**60%**
Pulses are gluten free	**68%**	**25%**	32%	44%	**60%**

Bolded numbers are significantly different (lower / higher) than at least 3 other segments

Base: All respondents

Information Sources for Preparing Pulses
By Segment

Q30. Where do you typically get your information about preparing pulses?

	Informed Champions (n=223)	Disinterested Unreachables (n=131)	Unexposed Reachables (n=250)	Forgetful Proponents (n=245)	Health Driven Persuadables (n=251)
Cookbooks	**82%**	**25%**	**42%**	**67%**	57%
Personal knowledge or experience	**47%**	**8%**	**15%**	**32%**	22%
Friends or colleagues	36%	24%	**18%**	29%	29%
Family	36%	**16%**	**21%**	32%	29%
Web Sites	**27%**	7%	8%	12%	**19%**
Grocery store	**26%**	13%	13%	16%	22%
Television	18%	3%	3%	7%	12%
Newspapers	**16%**	3%	7%	6%	**12%**
Dietitians or nutritionists	**16%**	3%	7%	8%	9%
Magazine	**16%**	**1%**	5%	10%	9%
Chefs	**14%**	3%	4%	7%	11%
Pulse grower and pulse companies	11%	2%	3%	7%	6%
Library	**8%**	2%	3%	2%	5%
Social networking sites	1%	1%	1%	2%	3%
Don't Know	2%	**40%**	**36%**	8%	17%

Bolded numbers are significantly different (lower / higher) than at least 3 other segments

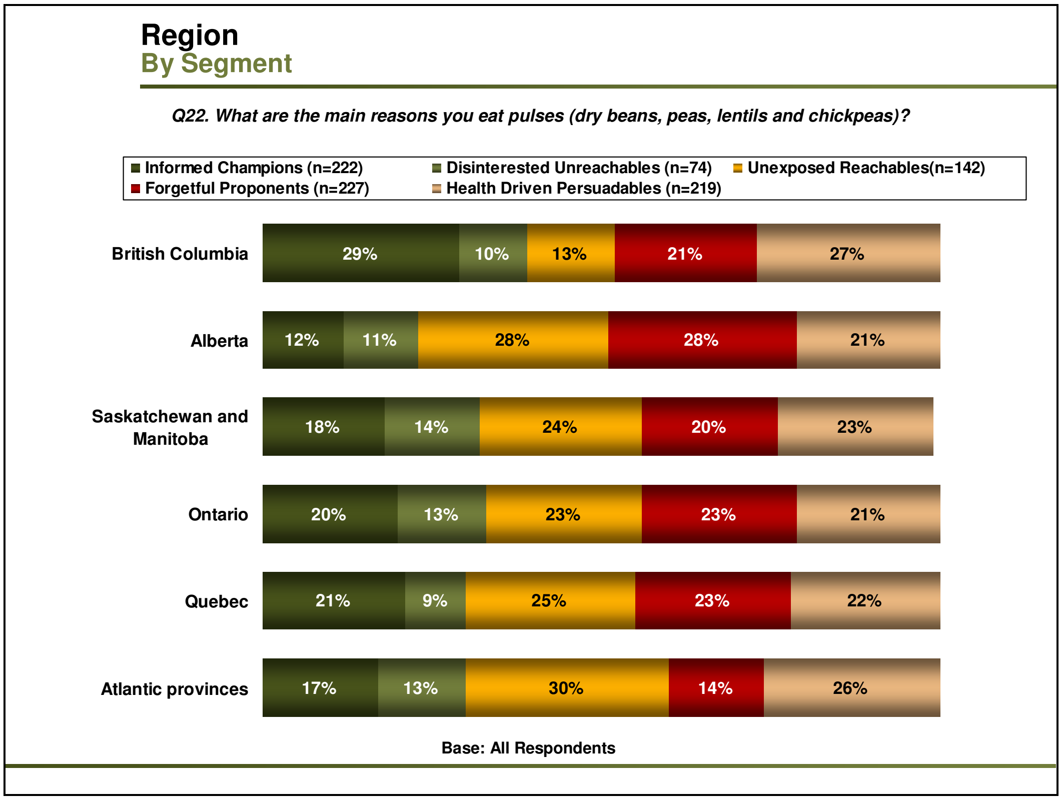
Base: All respondents

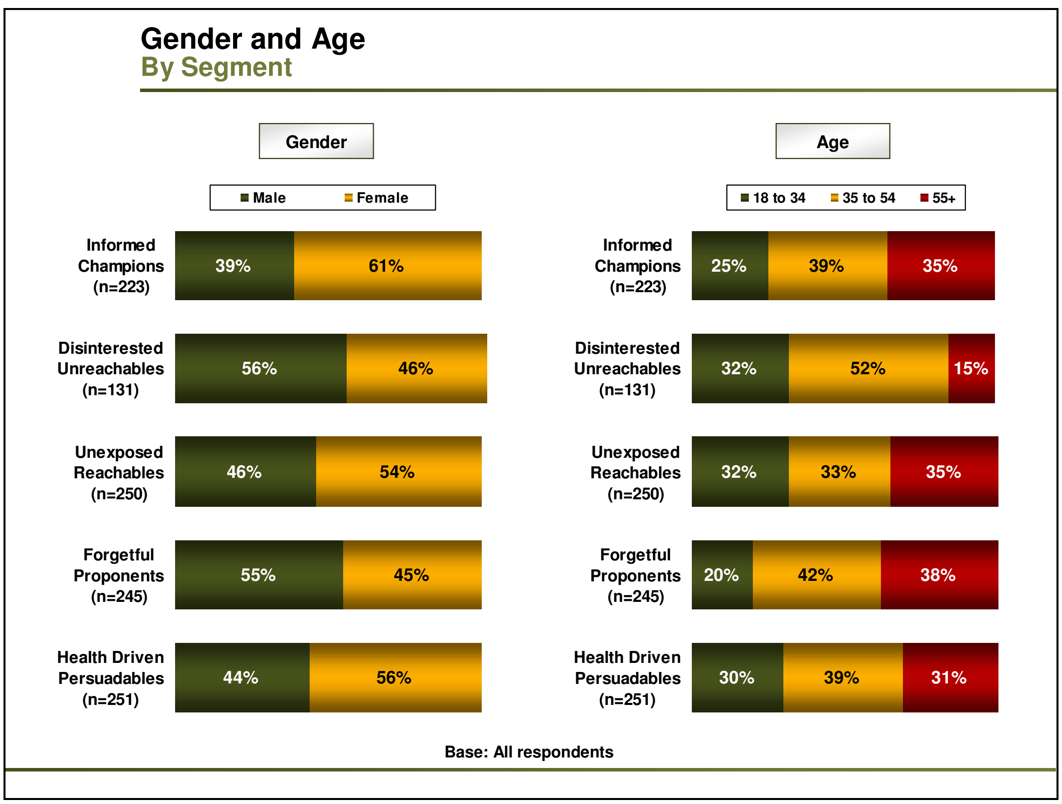
Health Profile
By Segment

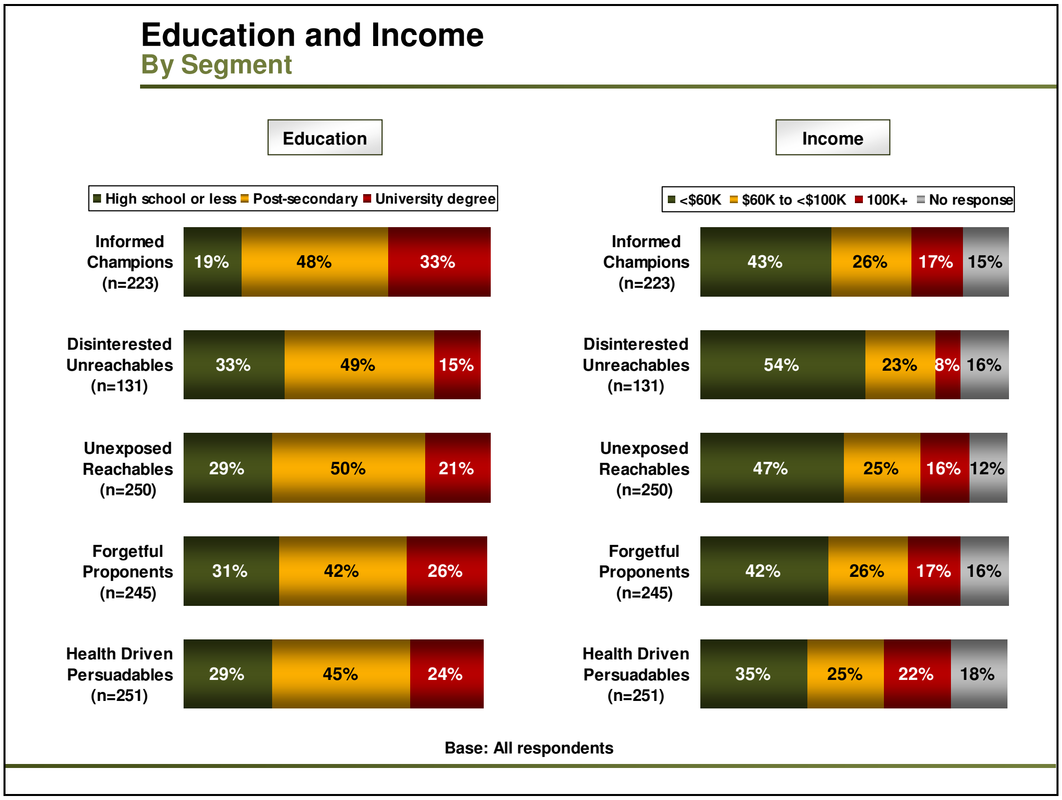
	Informed Champions (n=223)	Disinterested Unreachables (n=131)	Unexposed Reachables (n=250)	Forgetful Proponents (n=245)	Health Driven Persuadables (n=251)
Vegetarian or Vegan (in household)	**12%**	4%	1%	3%	2%
Heart disease or high blood cholesterol levels (in household)	26%	16%	25%	26%	21%
Underweight	**1%**	**14%**	3%	7%	5%
Advised by a health professional that weight may cause problems	36%	**19%**	35%	36%	29%

Bolded numbers are significantly different (lower / higher) than at least 3 other segments

Base: All respondents


Region
By Segment
Q22. What are the main reasons you eat pulses (dry beans, peas, lentils and chickpeas)?
Informed Champions (n=222)
Disinterested Unreachables (n=74)
Unexposed Reachables(n=142)
Forgetful Proponents (n=227)
Health Driven Persuadables (n=219)
British Columbia 29% 10% 13% 21% 27%
Alberta 12% 11% 28% 28% 21%
Saskatchewan and Manitoba 18% 14% 24% 20% 23%
Ontario 20% 13% 23% 23% 21%
Quebec 21% 9% 25% 23% 22%
Atlantic provinces 17% 13% 30% 14% 26%
Base: All Respondents


Gender and Age
By Segment
Gender
Male
Female
Informed Champions (n=223) 39% 61%
Disinterested Unreachables (n=131) 56% 46%
Unexposed Reachables (n=250) 46% 54%
Forgetful Proponents (n=245) 55% 45%
Health Driven Persuadables (n=251) 44% 56%
Age
18 to 34
35 to 54
55+
Informed Champions (n=223) 25% 39% 35%
Disinterested Unreachables (n=131) 32% 52% 15%
Unexposed Reachables (n=250) 32% 33% 35%
Forgetful Proponents (n=245) 20% 42% 38%
Health Driven Persuadables (n=251) 30% 39% 31%
Base: All respondents


Education and Income
By Segment
Education
Income
High school or less
Post-secondary
University degree
<$60K
$60K to <$100K
100K+
No response
Informed Champions (n=223)
19%
48%
33%
43%
26%
17%
15%
Disinterested Unreachables (n=131)
33%
49%
15%
54%
23%
8%
16%
Unexposed Reachables (n=250)
29%
50%
21%
47%
25%
16%
12%
Forgetful Proponents (n=245)
31%
42%
26%
42%
26%
17%
16%
Health Driven Persuadables (n=251)
29%
45%
24%
35%
25%
22%
18%
Base: All respondents

MESSAGING AND COMMUNICATIONS

Parts of this section of the report presents findings from the qualitative focus group research. Therefore, while broad trends and themes can be isolated, results are directional in nature and not necessarily representative of the broader population as a whole.

Interest in Different Forms of Pulses

Focus group participants were shown examples of different forms of pulses – dried, canned, a packaged meal, frozen vegetables, and a quick cooking variety of lentils – and asked if they were familiar with the products and if they would purchase them. In general, most participants had no issues with the dried or canned pulses, and some were interested in the frozen vegetables, however, reaction to the meal was mixed, and the quick cooking lentils did not appeal.

"I wouldn't buy that…kind of the whole fast food culture to me."

"The fibre content isn't on the label."

"The frozen I might buy…it has fibre."

"I never buy anything instant."

"I love instant but I like to look at the ingredients and see 5 ingredients. I like restaurant quality quick food."

One should keep in mind that participants were presented with a very limited set of prepared and 'convenient' pulse products; these findings should not be used to guide decisions regarding processed pulse products.

Top 10 Benefits of Pulses

Participants were also provided with a list of the top 10 benefits of pulses/ reasons to include them in your diet and asked for their reaction to the statements. Overall, **be heart healthy, live better, decrease your fat and saturated fat intake and increase your fibre intake resonated most strongly** with focus group participants. People tended to be questioning and skeptical of specific claims, benefits and outcomes, while more general messaging was more effective. A brief summary of reactions to each statement follows.

Lose weight: Recent research from the University of Toronto has shown that eating pulses can increase feelings of fullness or satiety and reduce waist circumference. While this statement did resonate with some participants – specifically, *increase feelings of fullness* – others were skeptical about the claim that eating pulses can *reduce waist circumference* or make one lose weight.

"I always fought against gaining weight, and anything that can help is good."

"I doubt it a little bit."

"I don't think any products will make you lose weight… I think its an overall thing… it can't be just pulses."

Increase your fibre intake: One cup of cooked pulses contains approximately 15 grams of fibre or around half the recommended daily intake for adults. There was general agreement that fibre intake is important, and participants considered the statement to be factual and credible, and several indicated it provided information they were not aware of.

"A good thing...I didn't know that…my doctors said I need more fibre."

Decrease your fat and saturated fat intake: Canada's Food Guide recommends choosing meat alternatives like beans, peas, chickpeas and lentils more often since they provide protein but don't add fat and saturated fat to your diet. While some participants indicated they are not concerned about fat intake, this statement did resonate with many.

"That was my favorite one… because of the whole saturated fat and an alternative to protein."

Be heart healthy: Regular intake of beans or other pulses have been shown to significantly reduce serum cholesterol and other blood lipids, major risk factors for heart disease. This statement resonated with most participants, though a few did question the specific health claims (e.g. serum cholesterol).

"I seemed to believe the heart is most important; there's been a lot of heart problems in my family."

I think the whole idea of eat this and your heart will be healthier is over blown… I think its more than that… its eat right and your heart will be okay

Add variety to your diet: Spice up your daily diet by trying new ethnic foods like chickpea curry, lentil dal, bean burritos or do a healthy new twist on an old favorite by adding chickpeas to a salad, putting black beans on your pizza or adding a can of lentils to spaghetti sauce. Reaction to this statement was mixed. While it appealed to some, others were not open to the idea of black beans on pizza or lentils in spaghetti sauce.

"This is important to me, because I care more about the taste of what I eat."

"I don't like that many ethnic foods…adding black beans to pizza…gross."

Choose environmentally-wise foods: Pulse crops naturally produce their own nitrogen, reducing reliance on fertilizers and lowering energy inputs. For the majority of participants, the environmental message either didn't resonate or created skepticism.

"It wouldn't drive me to go out and buy beans."

"Honestly, I don't think about it…I don't go out of my way to choose something harmful…but the factors are health and cost."

"I think it's a cheap marketing ploy because everyone is concerned about it these days."

Improve your endurance: Researchers from the University of Saskatchewan have found that eating lentils as a pre-exercise meal was beneficial for endurance exercise. While some found this interesting, many were skeptical about the claim, and eating lentils pre-exercise was not an appealing thought.

"Having endurance for the day is good."

"5am lentils doesn't work for me."

Save money: Pulses are an affordable, healthy food. A can of chickpeas is packed full of nutrients but costs as little as $1. Many participants questioned this statement, and others indicated that even if it were true, it would not be a motivation to eat pulses.

"I don't know where anyone saw a can of chickpeas for a dollar."

"I have to still end up liking the texture."

"They've gone up in prices… it's not the main ingredient in your menu… it does increase the price."

Eat your veggies: Enjoy healthy snacks like carrots, celery and other vegetables served with hummus or bean dips. Reaction to this statement was mixed, the negative reactions being from those who do not like hummus.

I give my daughter veggies with hummus.

How many people are familiar with hummus… it's a boring thing

Live better: Eating pulses can help prevent chronic diseases such as diabetes, heart disease and cancer. This statement resonated with most participants, though a couple did question the claim regarding cancer.

Live better is important to me.

It's a good feeling to eat something that could prevent a heart attack or cancer.

Cancer… I don't believe it… I can see heart disease or diabetes but not cancer

Print Ad Assessment

Participants were shown a number of promotional materials (ads and a brochure with information and recipes) for pulses and asked for their feedback.

The single biggest learning was that most Canadians do not know what a pulse is.

"Pointless, you have to remind people of what pulses are."

"They should give a definition of a pulse."

"What is a pulse, nothing on there tells you."

"It's an education thing…I didn't know what a pulse was…even though I like eating them."

"What is it? People can't read between the lines…are beans going to help my pulse?"

Aspects of the ads that appealed to or resonated with focus group participants included colourful pictures, food that looks 'tasty,' a link to a website with recipes, a 'grown in Canada' message and humour.

"I say gee, that looks tasty."

"If an ad entertains me, I will pay more attention. It has a comical part to it."

"I really like check out 1,000 delicious recipes."

"I like it…it's visual, fun, has a website, delicious, and it's talking about beans…no funky name pulses."

"I like how it labels everything so when I go to the grocery store I know what to buy."

"I like that it says where it grows in Canada."

"It tells you what you need to know about pulses."

Ideal Message

Participants in two of the focus groups were split into groups and asked to create the ideal message to communicate to the public to convince them to increase their pulse consumption, as well as how or where to communicate. While recommendations varied, there was consensus that it is critical to:

- Clearly communicate what pulses are;
- Provide nutritional facts such as high fibre, full of protein and low fat;
- Have colourful pictures, visually appealing pictures of finished pulse dishes;
- Have a link to a website where people could find a 'variety of delicious' recipes using pulses and tips on how to cook them; and,
- Keep it simple.

Key channels for communicating information about pulses include the Internet, newspapers and magazines as well as the grocery store. Given that the grocery store is the place where many food purchase decisions are made, having in-store demos or tastings of prepared pulse dishes as well as eye-catching brochures or pamphlets available, could prove to be an effective communications strategy.

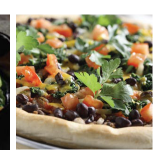
Key Takeaways

Key takeaways for communicating with the public from both the survey results and focus group findings are:

1) People don't know what pulses are. Most people are not familiar with the term 'pulses' – it needs to be spelled out explicitly in any advertising or communications. Pictures of pulse dishes are not enough – people do not know enough to identify the 'pulse' among other ingredients. For example, in picture of a salad including beans, tomatoes, corn and cilantro, many Canadians would not be able to identify beans as the pulse. Perhaps the most effective tagline is simply 'beans, peas, lentils, chickpeas' in large enough font to be clearly seen.

Pulses

beans peas lentils chickpeas



2) Colourful, delicious looking dishes are a must. Visually appealing pictures are key in any communications or messaging targeting the public – they will make people stop and take notice.

3) Recipes, recipes, recipes! Variety is a well kept secret. Even pulse consumers aren't aware of the tremendous variety of dishes that can be made with pulses, and they different varieties of pulses themselves. Quick & easy recipes, ethnic recipes, child-friendly recipes and gourmet meals all have their appeal. Further, most pulse consumers tend to use pulses in side dishes (e.g. soup, salad, dips) rather than as a main part of their meals – elevate pulses from their side dish status.

Pulse Canada already has a database of visually appealing dishes and a wide array of recipes – these are excellent examples of the types of recipes to share more widely with the public.

4) The Internet is key. A website address where consumers can find recipes should be a critical component for any advertising or communications. The Internet should be an essential part of any communications strategy.

5) High level nutritional and health benefits resonate the most strongly with consumers. For example, live healthy, be heart healthy, packed with protein, high in fibre or low in saturated fat. People are skeptical of specific health benefits and research claims.

6) The environment should be a secondary focus. While the environment is important to many, it should be a secondary message – preserving and protecting the environment is unlikely to drive people to increase their pulse consumption.

7) The 'grown in Canada' or 'locally grown' message, however, is meaningful. This message does resonate with many and could influence purchase and consumption decisions.

8) Weight management is important to Canadians, but… Information around pulse consumption and weight management definitely resonates with many consumers, however, it should not be the major focus of advertising or the key reason given for consuming pulses.

9) Communicating at the point of purchase could be effective. In addition to the Internet and traditional media such as newspapers and magazines, distributing information alongside food displays (or tastings) could be a fruitful channel.

PULSE CONSUMPTION AMONG SOUTH ASIAN IMMIGRANTS

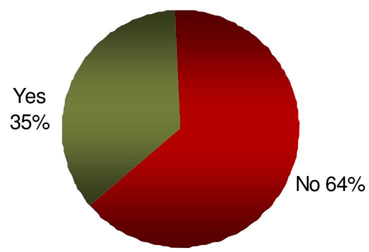
This section of the report presents key findings for the online survey conducted with 230 South Asian immigrants.

RESPONDENT PROFILE

A profile of South Asian respondents is provided below.

Health Profile

Vegetarian or Vegan



Incidence of Disease

Heart disease or high blood cholesterol levels	25%
Diabetes	24%
Celiac disease	1%
None of the above	63%
Decline to respond	1%

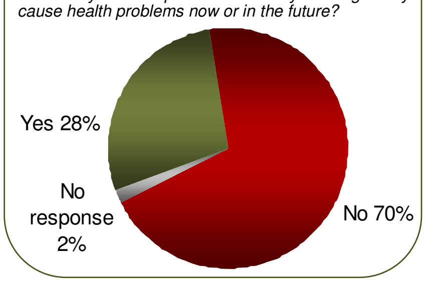
Reported Weight

For your height and weight would you say you are…?

Very underweight	1%
Somewhat underweight	4%
Average weight	59%
Somewhat overweight	32%
Very overweight	3%
Decline to respond	1%

Advised about Weight

Have you (or family members in your household) been advised by a health professional that your weight may cause health problems now or in the future?



Tenure in Canada

Tenure in Canada

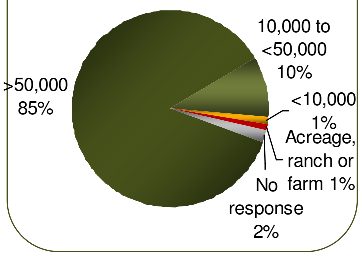
11 to 20 years	39%
6 to 10 years	30%
5 years or less	31%
- 3 to 5 years	20%
- 2 years or less	10%

Age Left Country of Birth

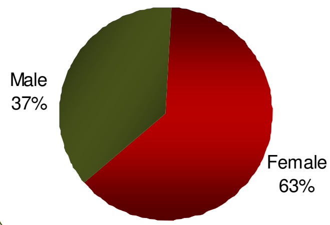
Under the age of 12	11%
12 to 17	10%
18 or older	78%
Decline to respond	<1%

Demographics

Size of City or Town



Gender



Age

18 to 24 years	14%
25 to 34 years	35%
35 to 44 years	24%
45 to 54 years	13%
55 to 64 years	7%
65 years or older	2%
Decline to respond	4%
Mean	*37*

Household Size

1 person	4%
2 people	18%
3 people	21%
4 or 5 people	52%
6 or more people	12%
Decline to respond	2%

Education

High school or less	5%
Some university,/college/ post secondary technical	12%
Graduated college/ post secondary technical	13%
Completed university undergraduate degree	35%
Completed university post graduate degree	34%
Decline to respond	1%

Income

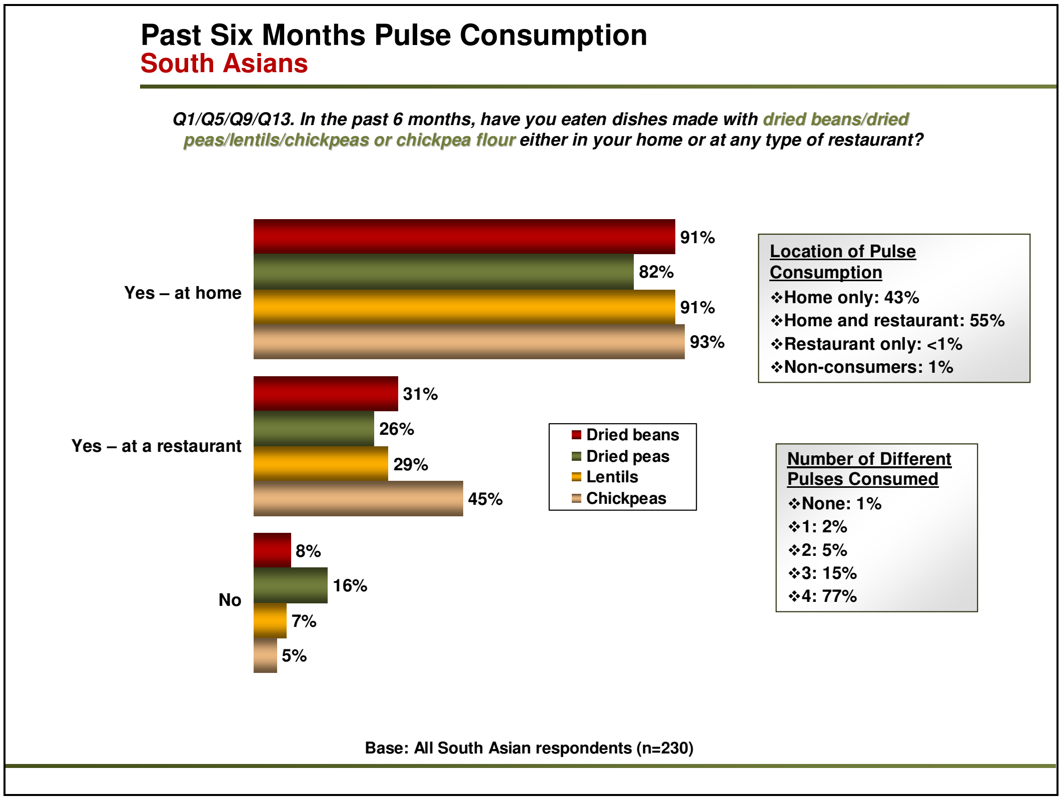
Less than $30,000	11%
$30,000 to just under $60,000	30%
$60,000 to just under $100,000	27%
$100,000 or more	17%
Decline to respond	15%

TYPES, FREQUENCY AND FORM

Past Six Months Pulse Consumption

Past six months pulse consumption among South Asian immigrants is extremely high, and significantly higher than the broader Canadian public.

Consumption of chickpeas (95%), lentils (93%) and beans (92%) is near universal, while consumption of peas is slightly lower but still high (84%). More than three-quarters (77%) have consumed all four types of pulses in the past six months, while another 15% have consumed three of the four. Pulse consumption both at home and at restaurants is markedly higher than among the Canadian public.

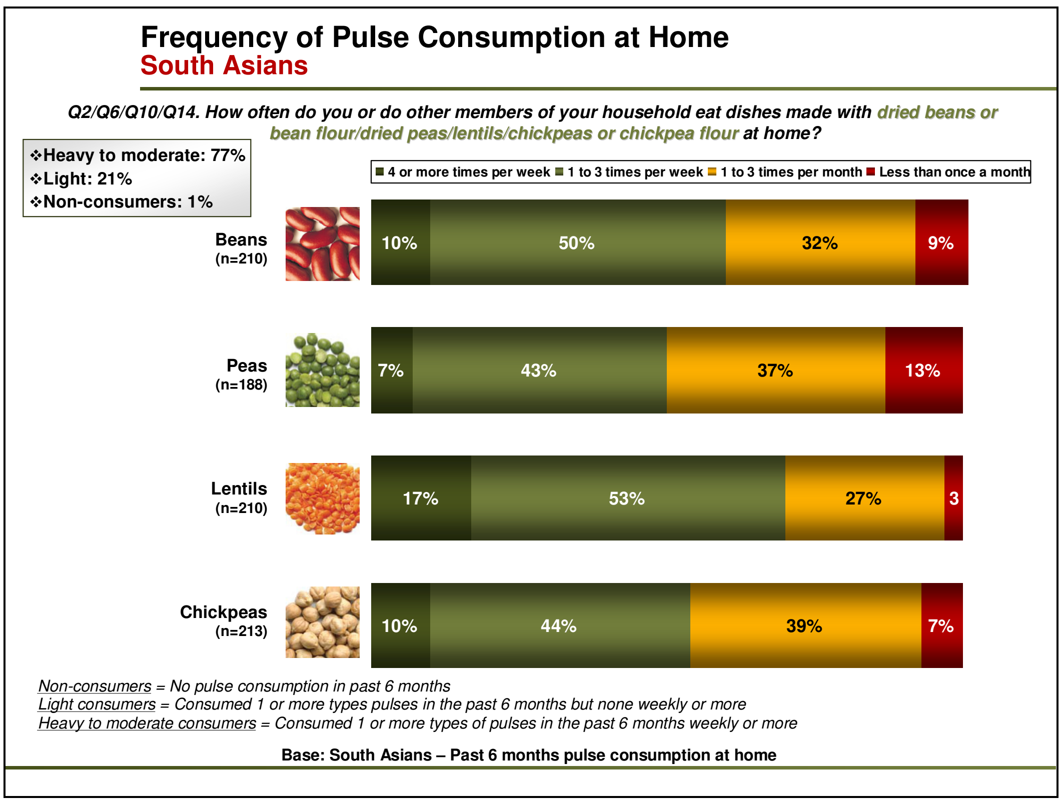


Frequency of Pulse Consumption at Home

Among those who have consumed pulses at home in the past six months, weekly consumption of all four pulses is high, with lentils in the lead and peas the least frequently consumed.

Frequency of consumption is much higher than among the Canadian public, with about three-quarters of South Asian immigrants classified as moderate to heavy consumers, one-in-five classified as light consumers and just 1% falling into the non-consumer category. **It is notable that the percentage of South Asian immigrants that fall into each of these categories does not vary significantly with tenure in Canada.**

Pulse consumption is, however, higher in vegetarian households – 40% of moderate to heavy consumers have a vegetarian or vegan in the household, compared to 18% of light consumers and none of the non-consumers.



Forms and Types of Dishes Consumed at Home

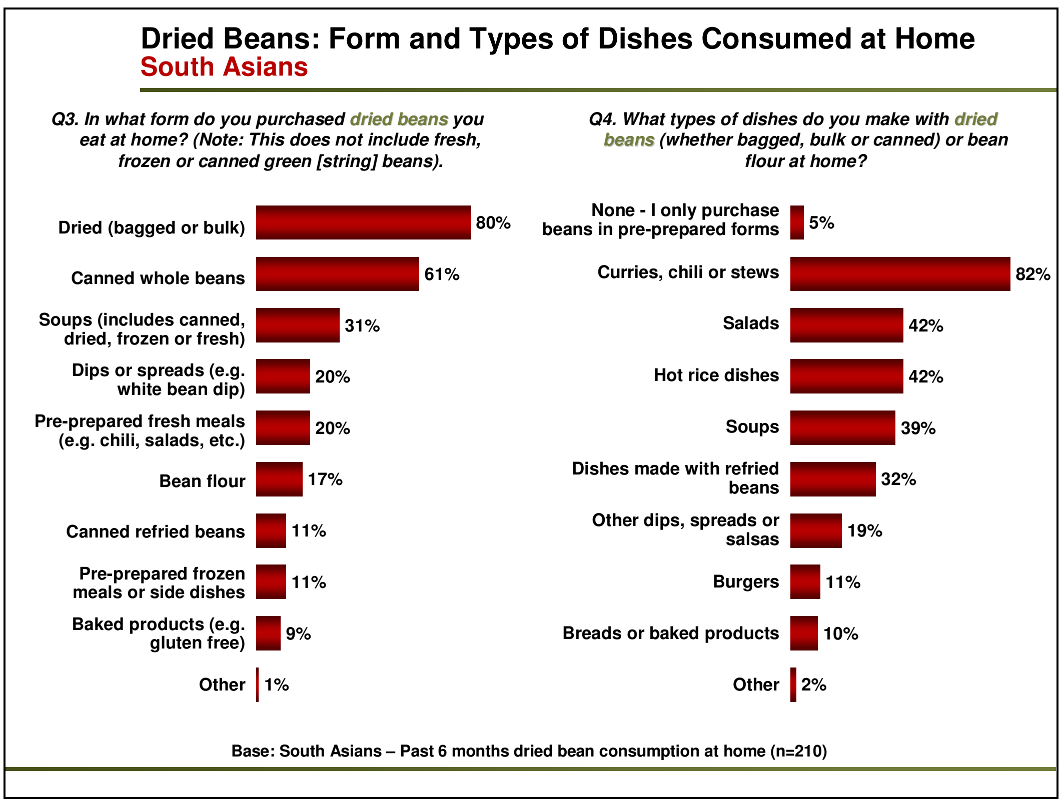
Respondents who indicated they had consumed each type of pulse at home in the past six months were asked to specify the form in which the pulse was purchased as well as the types of dishes made with the pulse.

Unlike the broader public, South Asian immigrants primarily purchase pulses in the dried form. Canned beans and chickpeas are also purchased by more than half, while chickpea flour is also common among South Asian immigrants. Compared to the Canadian public, South Asian immigrants tend to prepare a wider variety of dishes made with pulses.

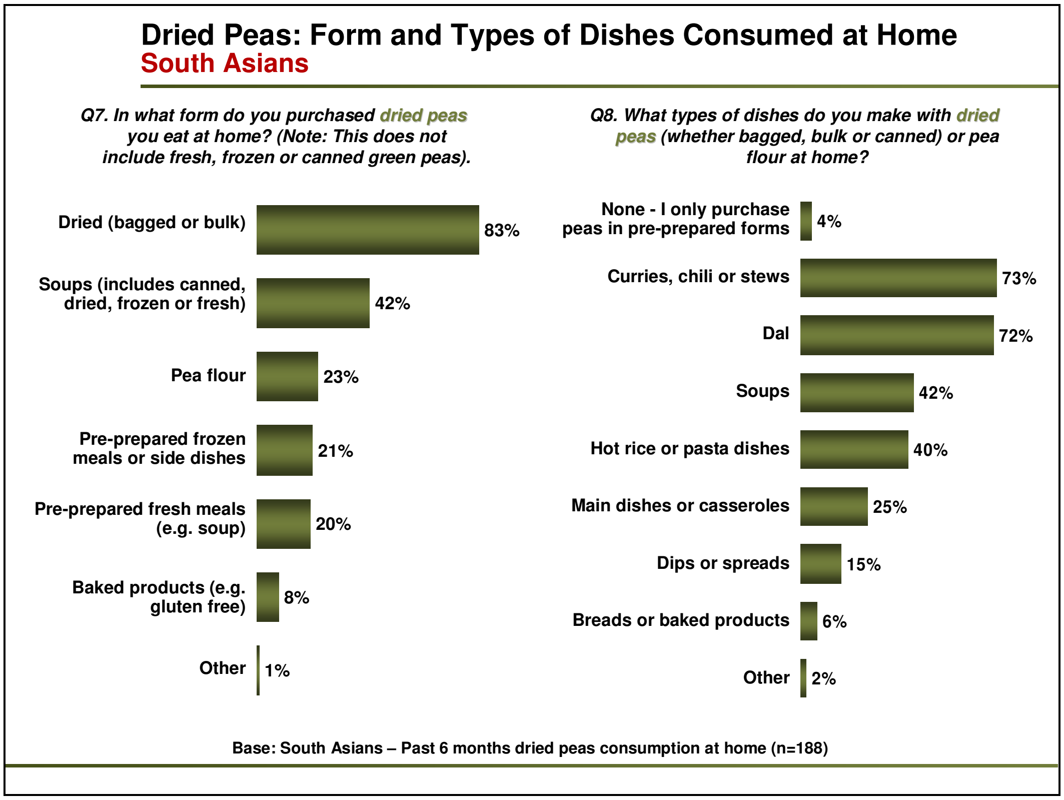
It is interesting that the purchase of canned beans is significantly higher among those with 11 to 20 years tenure in Canada (74% vs. 54% 10 years or less) as is the purchase of lentil soup. The purchase and consumption of dips or spreads also tends to increase with tenure, with consumption significantly lower among past 5 years immigrants.

The findings that pulse consumption does not decrease with tenure, and that purchase and consumption of non-traditional forms and dishes increases with tenure, suggests that South Asian immigrants could be an attractive market for prepared pulse products.

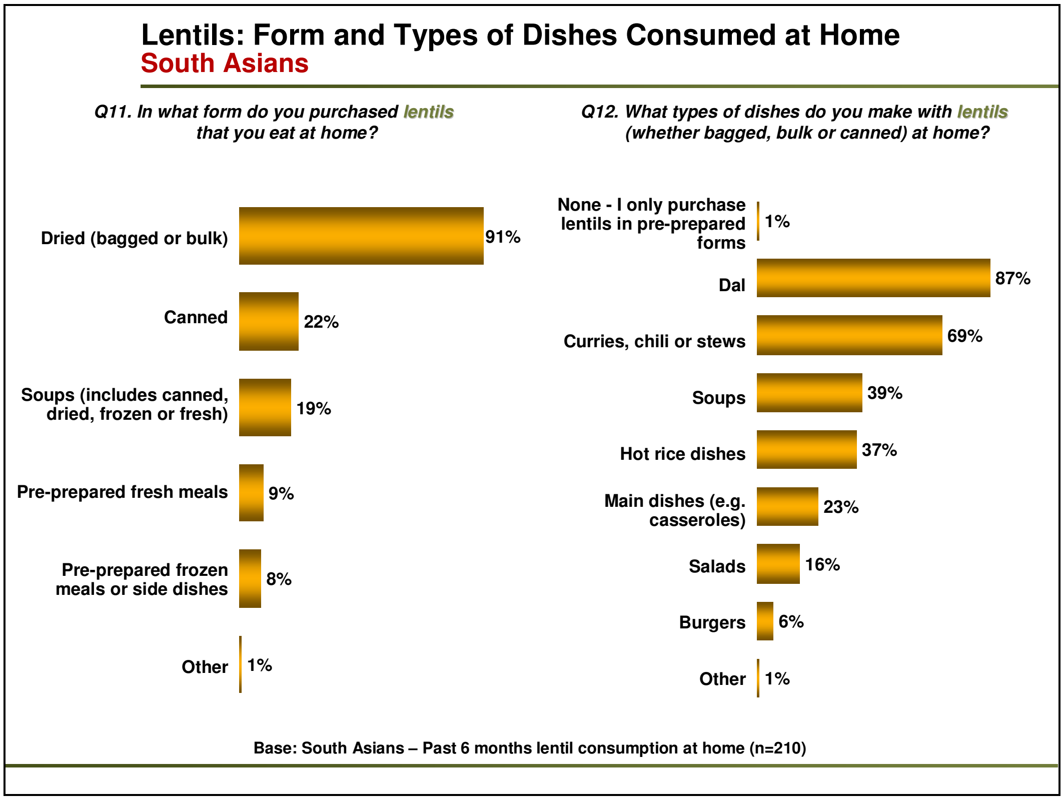
Beans



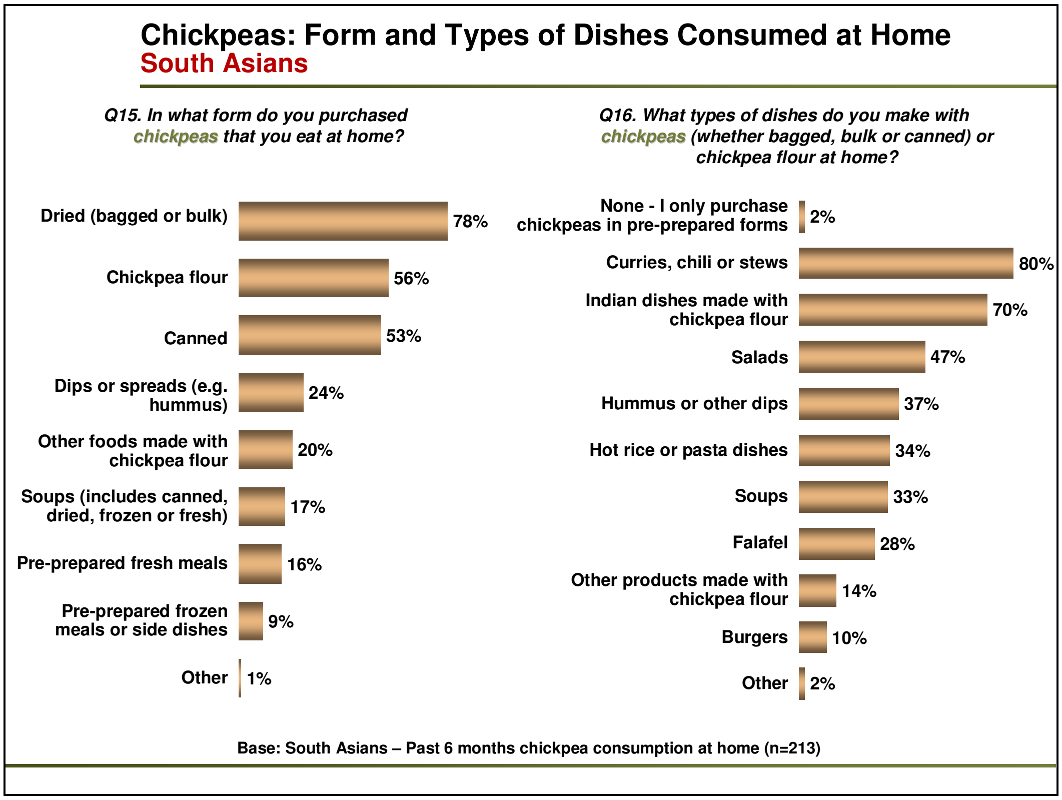
Peas


Dried Peas: Form and Types of Dishes Consumed at Home
South Asians
Q7. In what form do you purchased dried peas you eat at home? (Note: This does not include fresh, frozen or canned green peas).
Dried (bagged or bulk)
83%
Soups (includes canned, dried, frozen or fresh)
42%
Pea flour
23%
Pre-prepared frozen meals or side dishes
21%
Pre-prepared fresh meals (e.g. soup)
20%
Baked products (e.g. gluten free)
8%
Other
1%
Q8. What types of dishes do you make with dried peas (whether bagged, bulk or canned) or pea flour at home?
None - I only purchase peas in pre-prepared forms
4%
Curries, chili or stews
73%
Dal
72%
Soups
42%
Hot rice or pasta dishes
40%
Main dishes or casseroles
25%
Dips or spreads
15%
Breads or baked products
6%
Other
2%
Base: South Asians – Past 6 months dried peas consumption at home (n=188)

Lentils

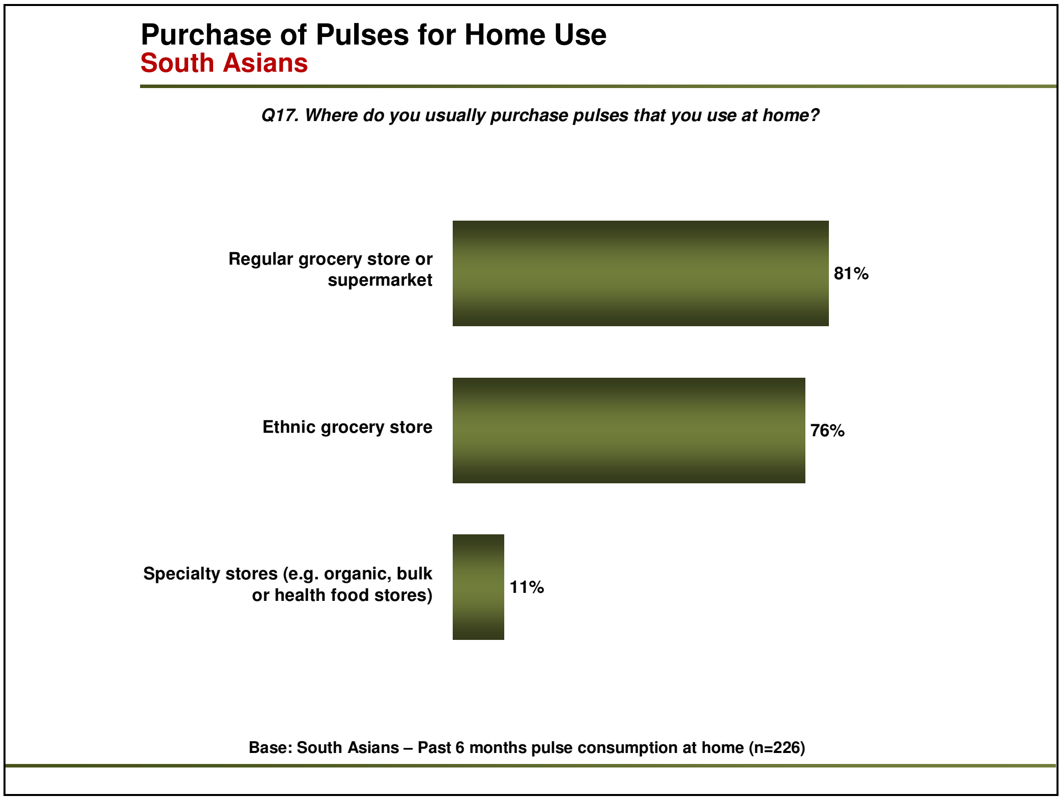

Lentils: Form and Types of Dishes Consumed at Home
South Asians
Q11. In what form do you purchased lentils that you eat at home?
Dried (bagged or bulk) 91%
Canned 22%
Soups (includes canned, dried, frozen or fresh) 19%
Pre-prepared fresh meals 9%
Pre-prepared frozen meals or side dishes 8%
Other 1%
Q12. What types of dishes do you make with lentils (whether bagged, bulk or canned) at home?
None - I only purchase lentils in pre-prepared forms 1%
Dal 87%
Curries, chili or stews 69%
Soups 39%
Hot rice dishes 37%
Main dishes (e.g. casseroles) 23%
Salads 16%
Burgers 6%
Other 1%
Base: South Asians – Past 6 months lentil consumption at home (n=210)

Chickpeas


Chickpeas: Form and Types of Dishes Consumed at Home
South Asians
Q15. In what form do you purchased chickpeas that you eat at home?
Dried (bagged or bulk) 78%
Chickpea flour 56%
Canned 53%
Dips or spreads (e.g. hummus) 24%
Other foods made with chickpea flour 20%
Soups (includes canned, dried, frozen or fresh) 17%
Pre-prepared fresh meals 16%
Pre-prepared frozen meals or side dishes 9%
Other 1%
Q16. What types of dishes do you make with chickpeas (whether bagged, bulk or canned) or chickpea flour at home?
None - I only purchase chickpeas in pre-prepared forms 2%
Curries, chili or stews 80%
Indian dishes made with chickpea flour 70%
Salads 47%
Hummus or other dips 37%
Hot rice or pasta dishes 34%
Soups 33%
Falafel 28%
Other products made with chickpea flour 14%
Burgers 10%
Other 2%
Base: South Asians – Past 6 months chickpea consumption at home (n=213)

Purchase of Pulses for Home Use

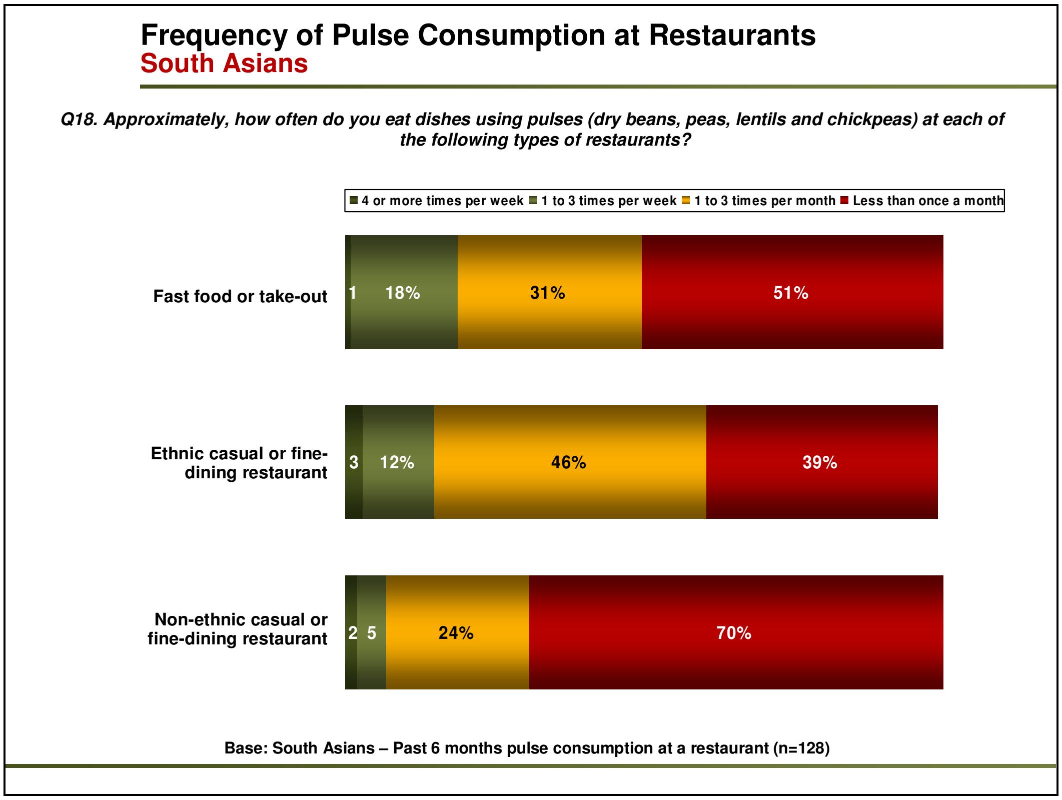
While the purchase of pulses at ethnic grocery stores is strikingly higher among South Asian immigrants than the Canadian public, the purchase of pulses at regular grocery stores also remains high.



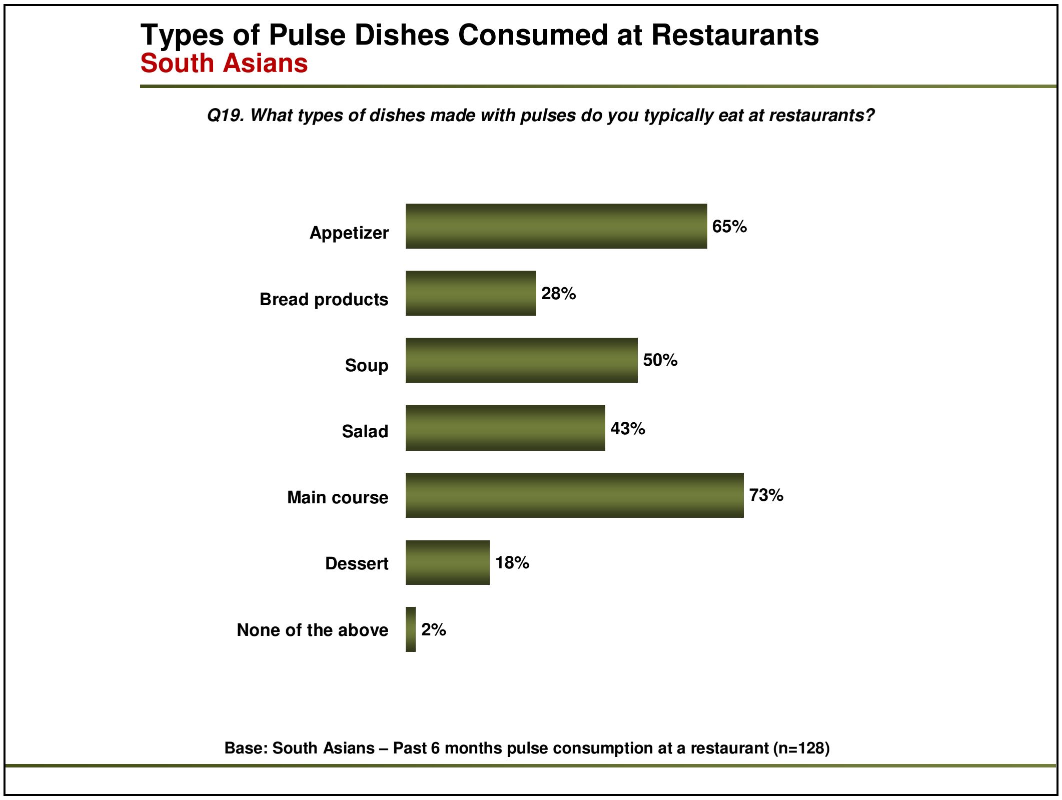
Pulse Consumption at Restaurants

The frequency of pulse consumption is highest at ethnic restaurants and lowest at non-ethnic restaurants. Monthly consumption at both ethnic restaurants and fast food restaurants is significantly higher among South Asian immigrants than the broader public.

Among South Asian immigrants, 61% report eating pulses at ethnic restaurants on a monthly basis (vs. 27% of Canadian adults) and 50% report eating pulses at fast food restaurants on a monthly basis (vs. 27% of Canadian adults), whereas monthly consumption at non-ethnic restaurants drops to 30% (on par with Canadian adults at 23%).



A variety of types of dishes made with pulses are consumed at restaurants including bread products and desserts, which are low among Canadian adults.

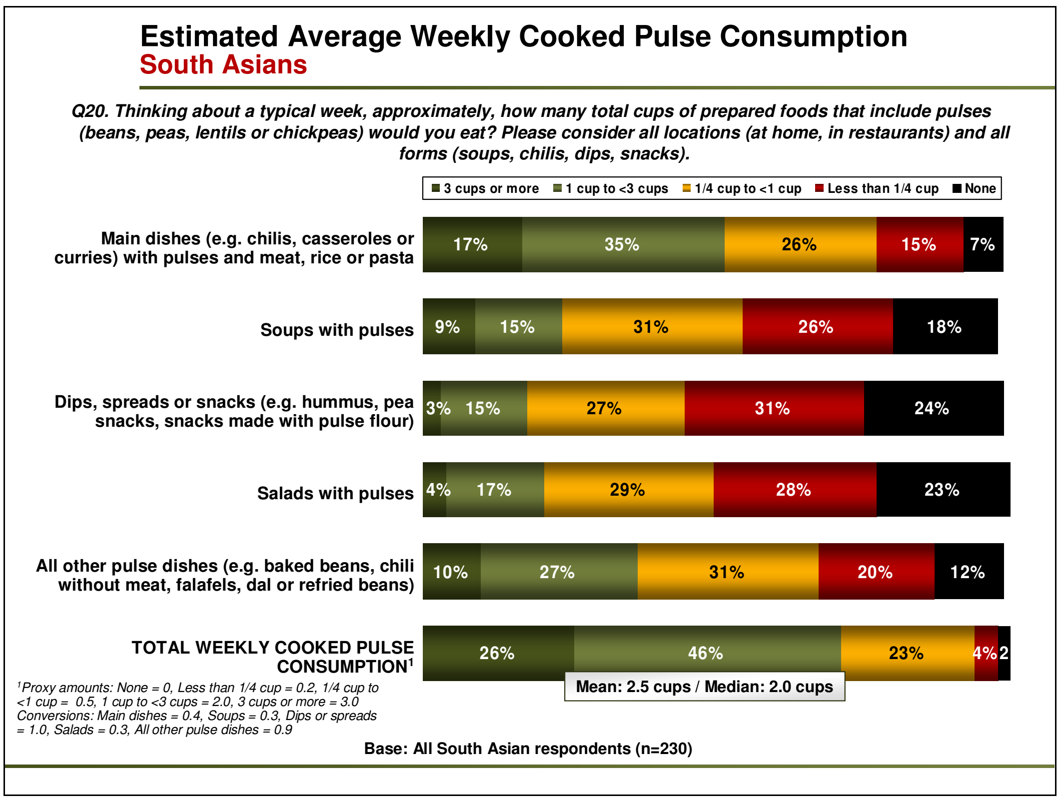


Estimated Average Weekly Cooked Pulse Consumption

Details of the calculation used to approximate average weekly cooked pulse consumption are presented earlier in the report in the section under 'Factors Influencing Pulse Consumption Among Canadians: Types, Frequency and Forms – Average Weekly Cooked Pulse Consumption.'

The estimated average weekly cooked pulse consumption among South Asian immigrants is 2.5 cups while the median is 2.0 cups, significantly higher than among Canadian adults (average of 1.0 cups, median of 0.6 cups).

The median provides a better estimation of pulse consumption among South Asians than the average as there is a wide variation in reported consumption. The median represents the middle value; that is, an equal number of respondents are above and below the median. The average, on the other hand, is skewed by respondents who report high volumes of pulse consumption.

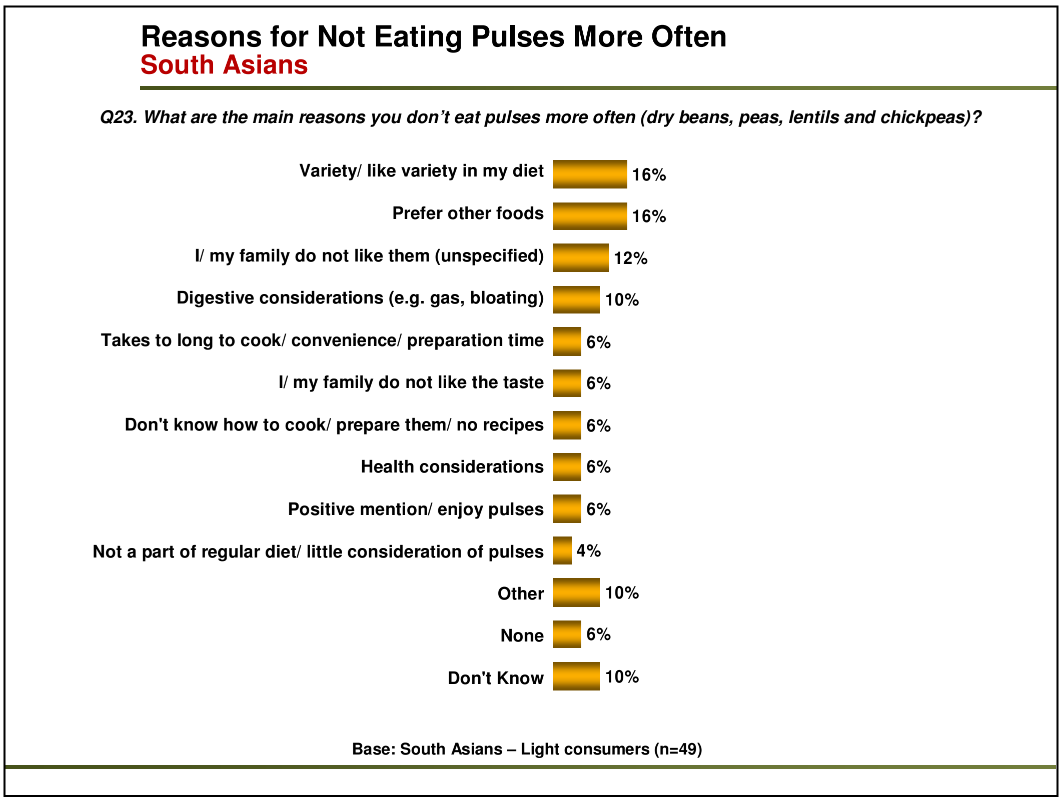


MOTIVATORS AND BARRIERS

Reasons for Not Eating Pulses More Often

As with the broader public, top-of-mind a variety of responses are provide as reasons for not eating pulses more often.

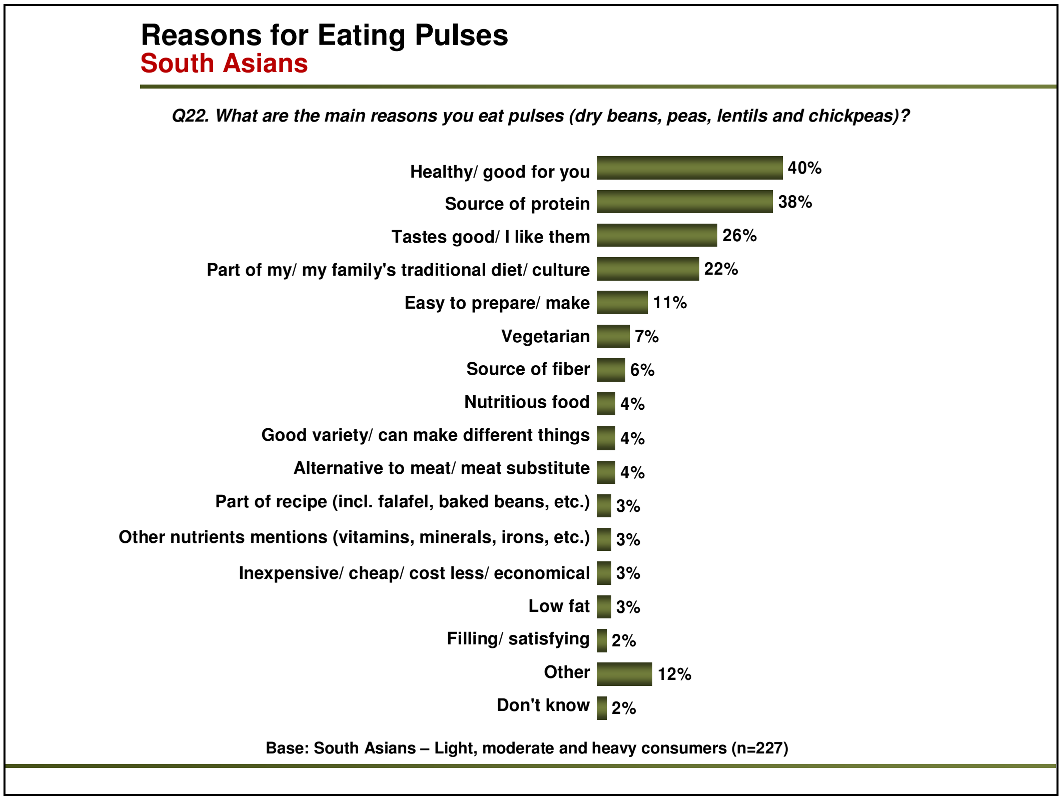
The most frequent reasons given by 'light consumers' for not consuming pulses more often are liking variety in their diet (16%), a preference for eating other foods (16%), they or their family not liking pulses (12% do not like them and 6% do not like the taste) and digestive considerations (10%).



Reasons for Eating Pulses

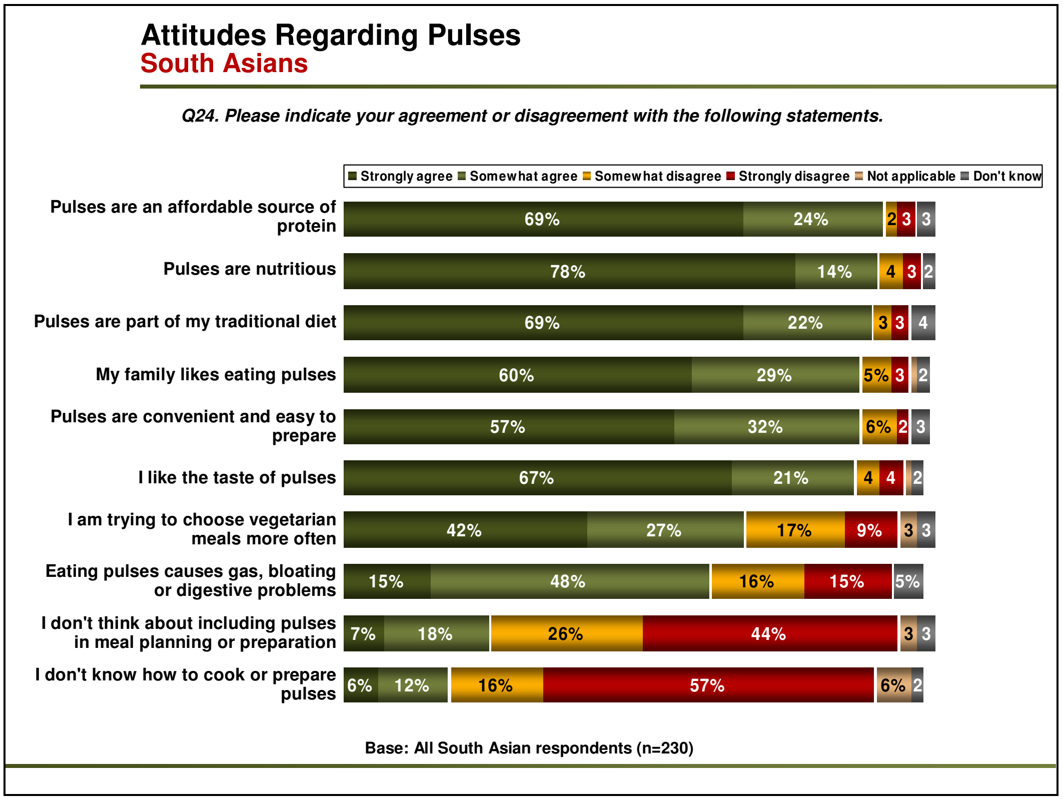
Pulses being healthy and a good source of protein are the most frequent reasons given for eating pulses.

When asked for reasons why they eat pulses, top-of-mind, "healthy/ good for you" (40%) and "a source of protein" (38%) are the top two responses, followed by "tastes good/ I like them" (26%) and "part of my traditional diet/ culture" (22%).



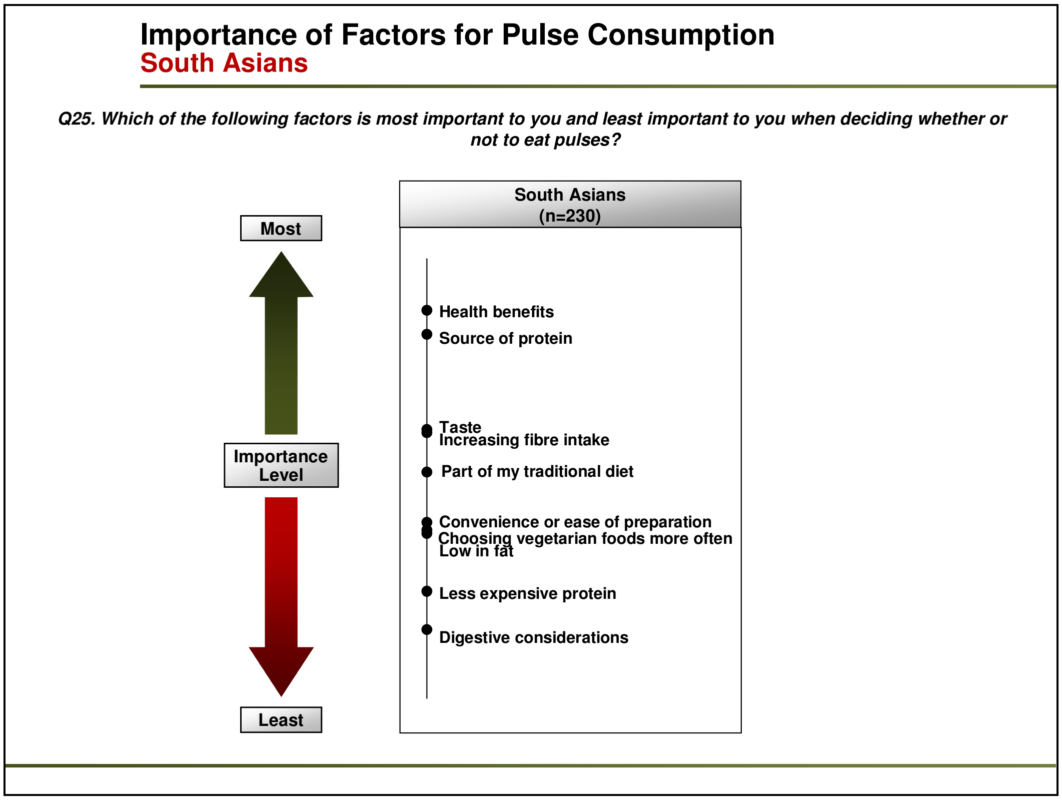
Attitudes Regarding Pulses

South Asian immigrants have positive attitudes regarding pulses – unlike the Canadian public, not knowing how to cook pulses and not liking the taste of pulses do not emerge as barriers. Further, choosing vegetarian meals and pulses being part of their traditional diet are motivators not found among the general public.



Importance of Factors for Pulse Consumption

Health benefits and a source of protein are the two most important factors for South Asian immigrants when deciding whether or not to eat pulses. Taste and increasing fibre intake are also important, though lower on the scale. Being part of their traditional diet rounds out the top five factors. While health benefits was also the most important factor for Canadians overall, taste was also a top factor, while protein and fibre fell in the next tier.

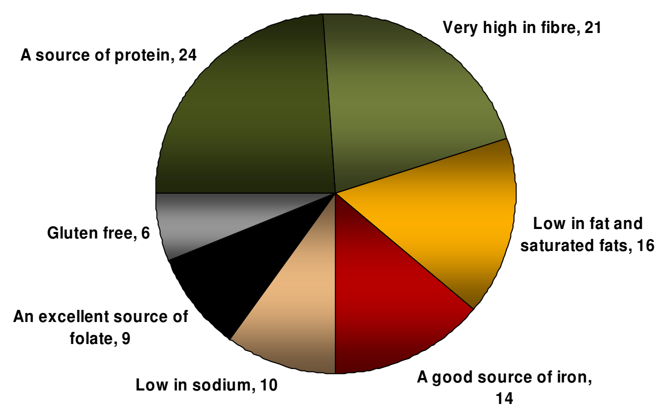


Nutritional Information Influencing the Purchase of a Processed Pulse Product

Being a source of protein and high fibre content are stronger factors than low fat content with regard to nutritional factors contributing to the selection of a processed food product containing pulses. Findings are very similar to those for Canadian adults, with protein and fibre the top two factors (though protein has a slight lead among South Asians whereas fibre has a slight lead among Canadian adults).

Nutritional Information Influencing the Purchase of a Processed Pulse Product
South Asians

Q26. To what degree would each of the following factors influence your decision to purchase a processed food product containing pulses? The product could be a number of things such as pasta, crackers, cereal or a snack item. Please assume you have 100 pointsand can allocate 0 to 100 points to each factor.

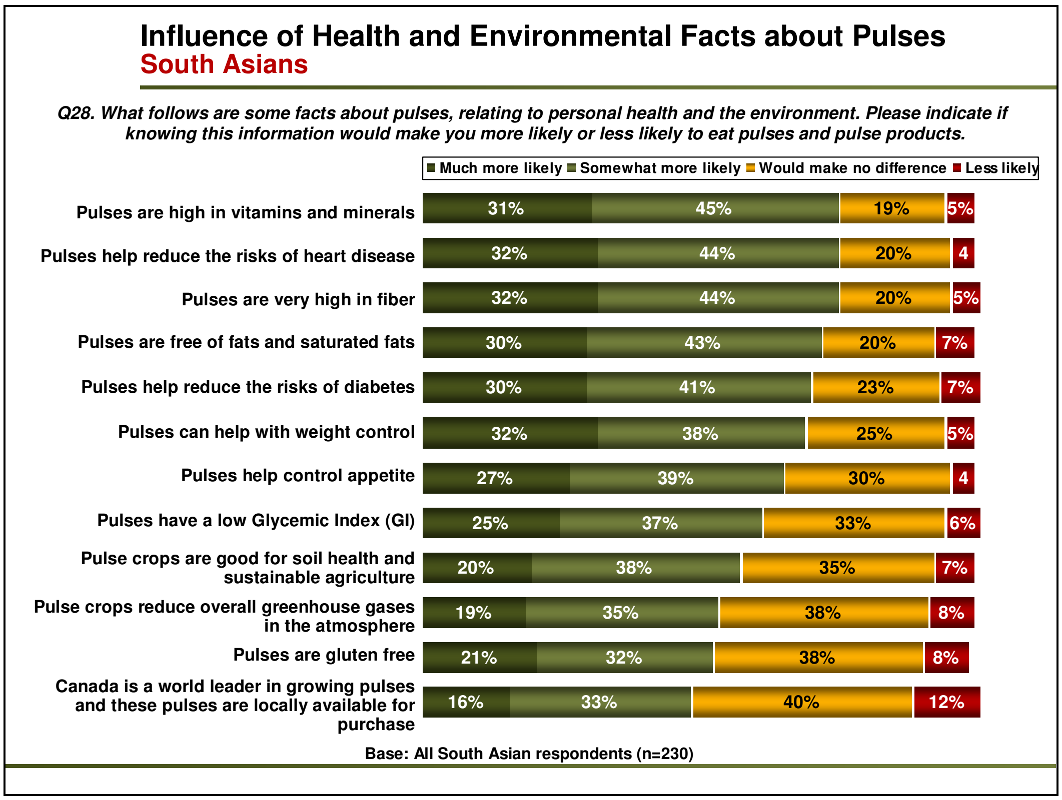


Base: All South Asian respondents (n=230)

Influence of Health and Environmental Facts about Pulses

As with the broader Canadian public, a number of facts related to personal health could be motivators for eating pulses, while environmental benefits have a lesser impact.

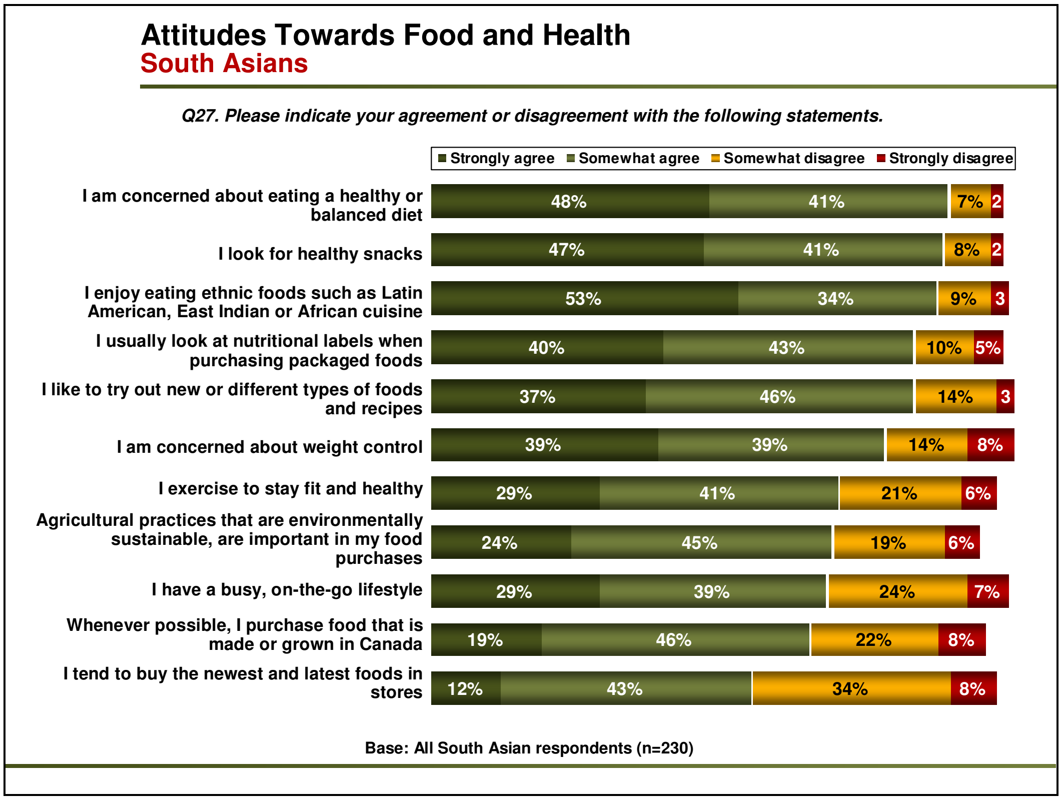
The percentage of 'more likely' responses is significantly higher among South Asian immigrants for pulses are very high in fibre, pulses are free of fats and saturated fats, pulses help reduce the risks of diabetes, pulses have a low Glycemic Index and pulses are gluten free. This may in part be reflective of the finding that the incidence of diabetes in the household is significantly higher among South Asian immigrants (24% vs. 16% Canadian adults).



Attitudes Towards Food and Health

As is the case with the broader Canadian public, South Asian immigrants' attitudes towards food and health indicate that the majority are concerned about maintaining their health and take actions to do so.

There are, however, some significant differences. Agreement about purchasing food made or grown in Canada is significantly higher among Canadian adults than South Asian immigrants. Conversely, agreement is significantly higher among South Asian immigrants regarding looking for healthy snacks, looking at nutritional labels, liking to try new or different foods, enjoying ethnic foods, tending to buy the newest and latest foods, and the importance of environmentally sustainable agricultural practices.

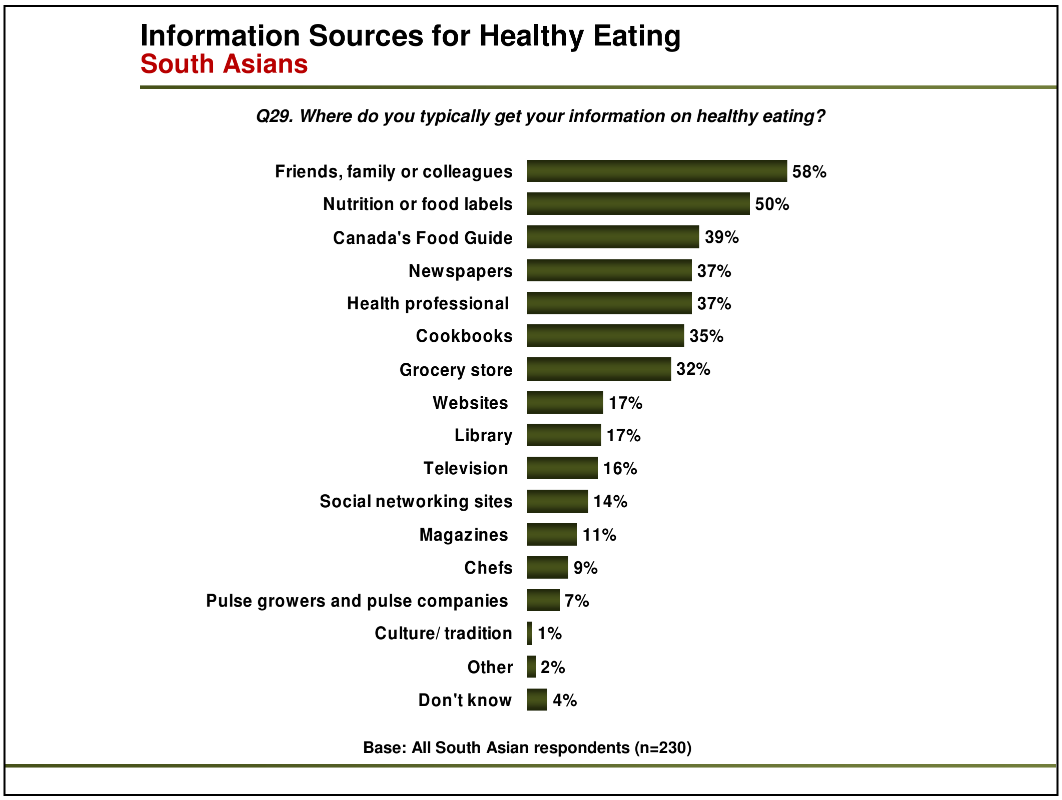


INFORMATION SOURCES

Information Sources for Healthy Eating

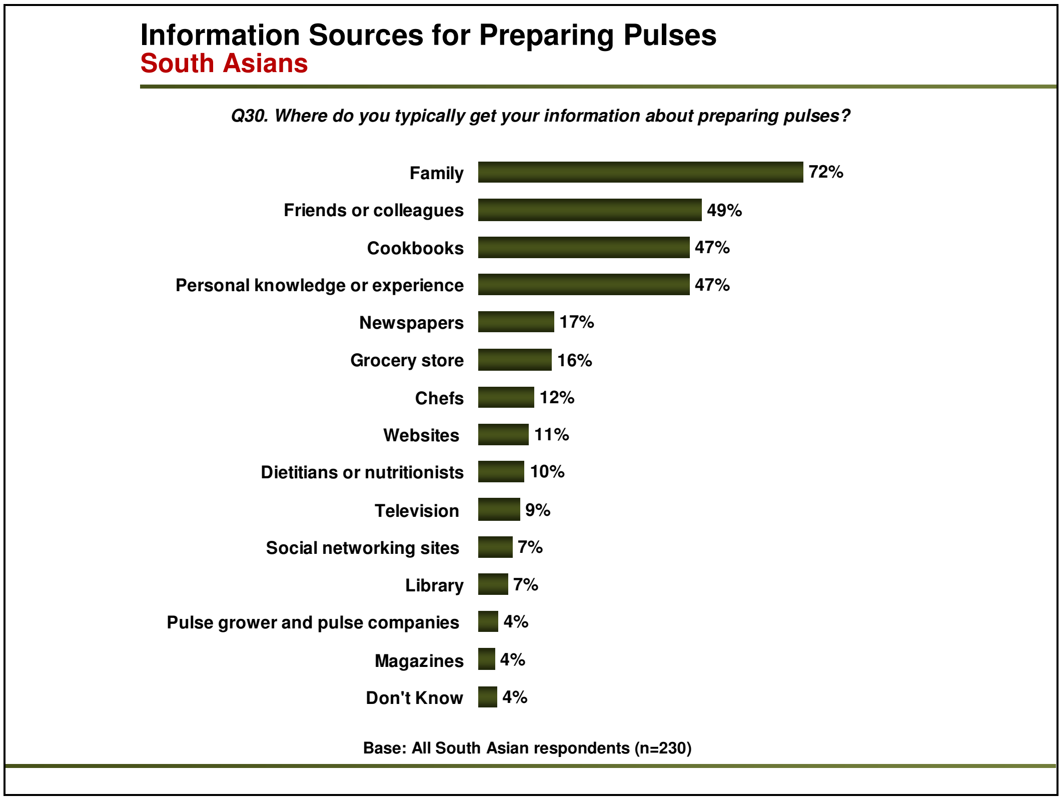
South Asian immigrants get information about healthy eating from a variety of sources with friends, family or colleague and nutrition or food labels leading the way. Canada's Food Guide, newspapers, health professionals, cookbooks, and grocery stores are also common sources.

Looking to friends, family and colleagues, newspapers, the library, social networking sites and pulse growers and pulse companies is significantly higher among South Asian immigrants than the broader Canadian public, whereas looking to cookbooks is significantly lower.



Information Sources for Preparing Pulses

Family is by far the most common source for information about preparing pulses, followed by friends or colleagues, cookbooks and personal knowledge or experience. Reliance on family, friends or colleagues and personal knowledge or experience is strikingly higher among South Asian immigrants than the broader Canadian public. The percentage selecting newspapers and social networking sites is also higher, while the percentage selecting cookbooks is significantly lower (though still close to half).



Summary of Key Findings

South Asian immigrants are a viable market for pulse products.

- Pulse consumption is very high.
- Pulse consumption does not decline significantly with tenure in Canada.
- Purchase and consumption of non-traditional forms and dishes (e.g. canned beans, lentil soup, hummus) increases with tenure.
- The facts that pulses are very high in fibre, free of fats and saturated fats, help reduce the risks of diabetes, have a low Glycemic Index and are gluten free, resonate strongly with South Asian immigrants, perhaps reflective of the finding that the incidence of diabetes is significantly higher than among Canadian adults.
- As with the broader Canadian public, South Asian immigrants' attitudes towards food and health indicate that the majority are concerned about maintaining their health and take actions to do so.
- Thus, messaging targeted at the broader public regarding the health benefits of pulses should also resonate with South Asian immigrants.
- The pulse industry may wish to further explore the appeal of processed and/or pre-prepared pulse products among this segment.

APPENDIX

Online Questionnaire

Factors Influencing Pulse Consumption in Canada
– FINAL Questionnaire –
December 10, 2009

SCREENING

[SURVEY INTRODUCTION]
This survey should be completed by an **adult** in your household who has primary or shared responsibility for making decisions about your household's **eating and meal planning**.

S1. In which of the following provinces do you reside?

Please select one response only

British Columbia
Alberta
Saskatchewan
Manitoba
Ontario
Quebec
New Brunswick
Nova Scotia
Prince Edward Island
Newfoundland and Labrador
None of the above

[THANK & TERMINATE IF NONE OF THE ABOVE. TRACK REGION QUOTAS BASED ON S1: BRITISH COLUMBIA, ALBERTA, SASK or MAN, ONTARIO, QUEBEC, ATLANTIC]

S2. Into which of the following age groups do you fall?

Please select one response only

18 to 34
35 to 54
55 or older
None of the above

[THANK & TERMINATE IF NONE OF THE ABOVE. TRACK AGE QUOTAS BASED ON S2]
S3. Are you…?

Please select one response only

Male
Female

[TRACK GENDER QUOTAS BASED ON S3]

S4. When it comes to making decisions about your household's eating and meal planning, would you say you…?

Please select one response only

Make all or most of the decisions about your household's eating and meal planning yourself
Have shared responsibility for making decisions about your household's eating and meal planning
You rarely or never make decisions about your household's eating and meal planning
Don't know

[THANK & TERMINATE IF RARELY OR NEVER OR DON'T KNOW]

SECTION A: TYPES, FREQUENCY AND FORM

The first part of this survey is about your consumption of different types of foods.

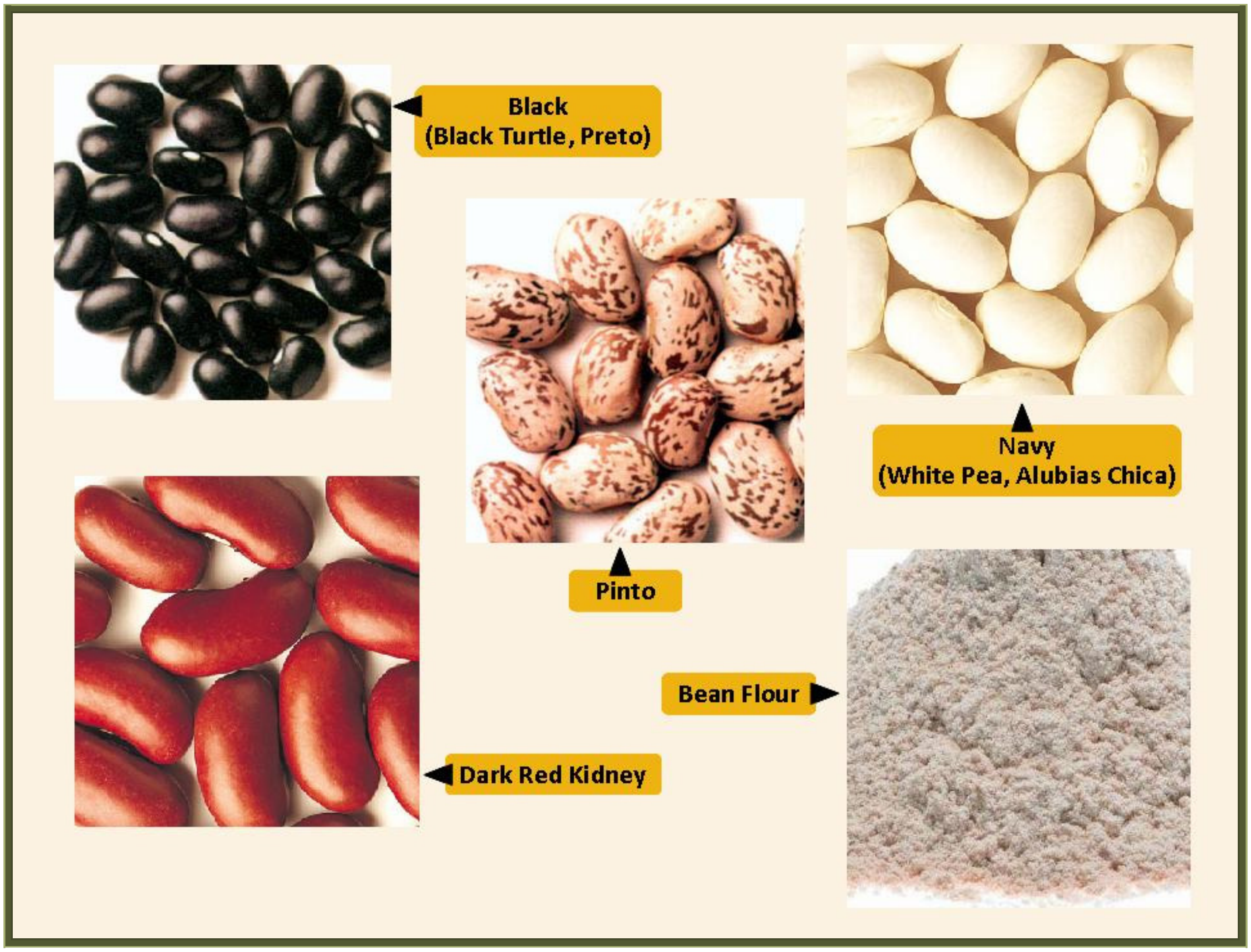
[PULSE DEFINITION SCREEN]

Dry beans, peas, lentils and chickpeas are collectively known as "pulses" or "legumes." For the remainder of this survey, we will refer to them as **pulses**. (Note: Pulses do not include fresh, frozen or canned green peas or beans, soy products, peanut products or mung beans).

[BEAN INFORMATION SCREEN]

BEANS

There are many types of **dried beans** – some are shown in the picture below. They are usually bought dried, canned or as dips or spreads.



Common dishes or foods with **dried beans** include: chili, refried beans, dips or spreads, salsa, salads, burgers, soup, stew, rice and side dishes.

1. In the past **6 months**, have you eaten dishes made with **dried beans** either in your home or at any type of restaurant? (If you would like to see the information or pictures of dried beans again, please click here.) **[BEAN INFORMATION SCREEN SHOULD OPEN UP IN A NEW WINDOW]**

Please select all that apply

Yes – at home
Yes – at a restaurant
No [SINGLE PUNCH]

[ASK Q2 TO Q4 IF YES – AT HOME IN Q1, ELSE SKIP TO PEA INFORMATION SCREEN]

2. How often do you, or do other members of your household, **eat** dishes made with dried beans or bean flour at **home**? If you are not sure, please provide your best estimate.

Please select one response only

4 or more times per week
1 to 3 times per week
1-3 times per month
Less than once a month

3. In what form do you **purchase** dried beans that you eat at **home**…? (Note: this does not include fresh, frozen or canned green (string) beans)

Please select all that apply

Dried (bagged or bulk)
Bean flour
Canned whole beans
Canned refried beans
Soups (includes canned, dried, frozen or fresh)
Dips or spreads (e.g. white bean dip)
Pre-prepared frozen meals or side dishes
Pre-prepared fresh meals (e.g. chili, salads, etc.)
Baked products (e.g. gluten free)
Other (please specify)

4. What types of dishes do you **make** with dried beans (whether bagged, bulk or canned) or bean flour at **home**?

Please select all that apply

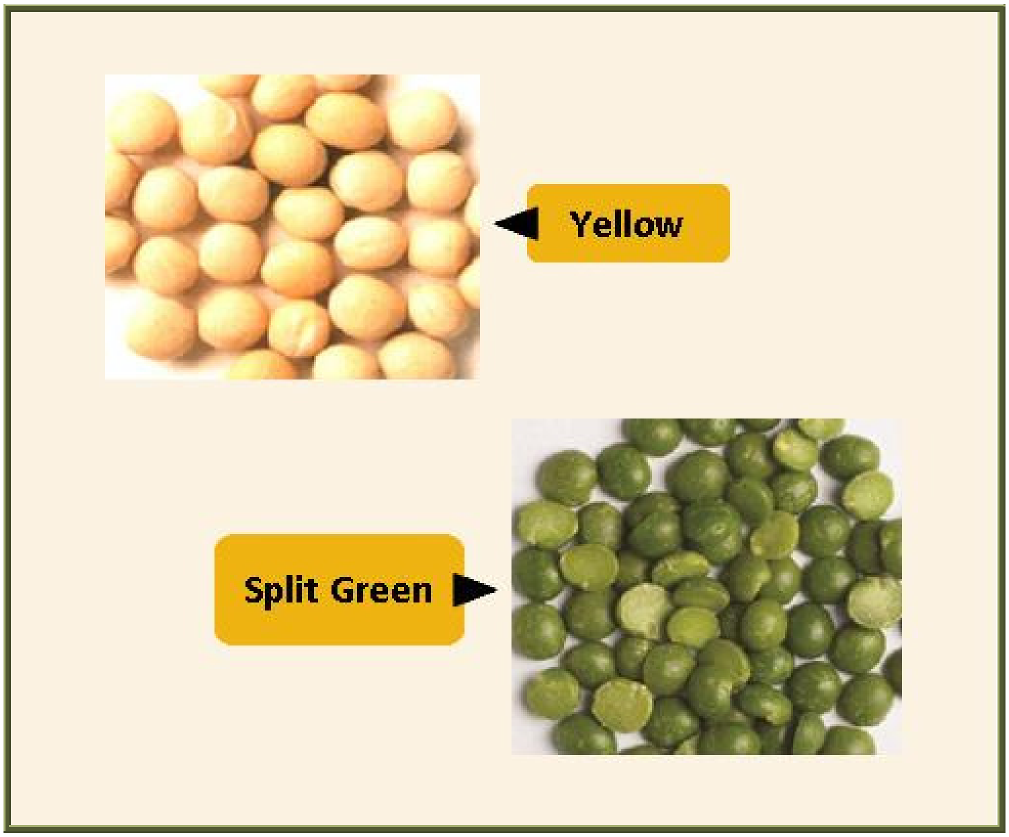
None – I only purchase beans in pre-prepared forms (i.e. require heating or can be eaten cold)

Dishes made with refried beans - burritos, enchiladas or dips
Other dips, spreads or salsas
Curries, Chili or Stews
Burgers
Soups
Salads
Hot rice dishes
Breads or baked products
Other (please specify)

[PEA INFORMATION SCREEN]

PEAS

There are many types of **dried peas** – two are shown in the picture below.



Common dishes made with **dried peas** include: soup, dips or spreads, salads, rice, pasta and side dishes. (Note: this does not include fresh, frozen or canned green peas.)

5. In the past **6 months**, have you eaten dishes made with **dried peas** or pea flour either in your home or at any type of restaurant? (If you would like to see the information or pictures of dried peas again, please click here.) **[PEAS INFORMATION SCREEN SHOULD OPEN UP IN A NEW WINDOW]**

Please select all that apply

Yes – at home
Yes – at a restaurant
No [SINGLE PUNCH]

[ASK Q6 to Q8 IF YES – AT HOME IN Q5, ELSE SKIP TO LENTIL INFORMATION SCREEN]

6. How often do you, or do other members of your household, **eat** dishes made with dried peas at **home**? If you are not sure, please provide your best estimate.

Please select one response only

4 or more times per week
1 to 3 times per week
1-3 times per month
Less than once a month

7. In what form do you **purchase** dried peas that you eat at **home**…? (Note: this does not include fresh, frozen or canned green peas.)

Please select all that apply

Dried (bagged or bulk)
Pea flour
Soups (includes canned, dried, frozen or fresh)
Pre-prepared frozen meals or side dishes
Pre-prepared fresh meals (e.g. soup)
Baked products (e.g. gluten free)
Other (please specify)

8. What types of dishes do you **make** with dried peas (whether bagged, bulk or canned) or pea flour at home?

Please select all that apply

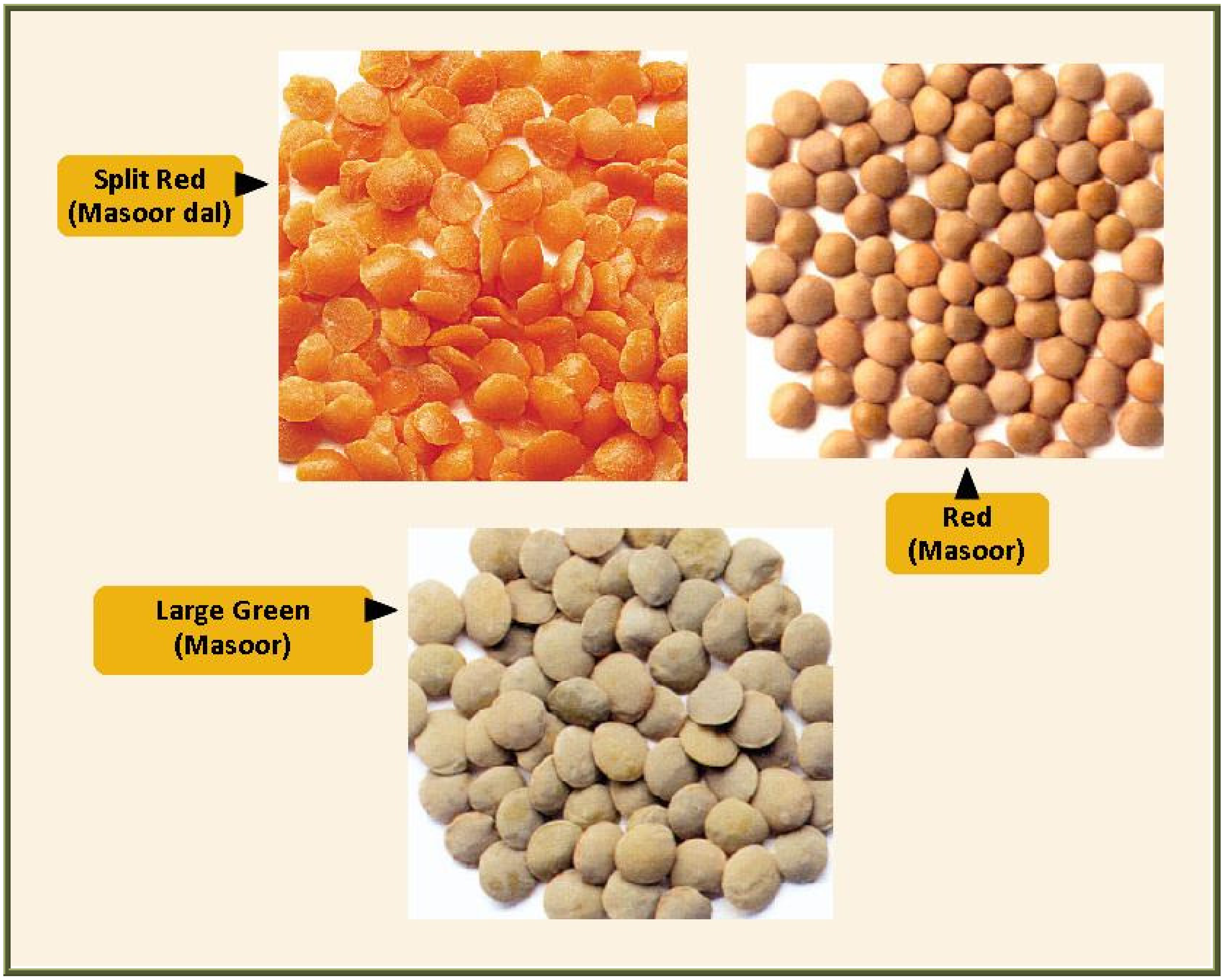
None – I only purchase peas in pre-prepared forms (i.e. require heating or can be eaten cold)

Soups
Dips or spreads
Curries, Chili or Stews
Dal
Hot rice or pasta dishes
Main dishes or casseroles
Breads or baked products
Other (please specify)

[LENTIL INFORMATION SCREEN]

LENTILS

There are many types of **lentils** – some are shown in the picture below. They are usually bought dried or canned.



Common dishes made with **lentils** include: soup, dal, curries, dips or spreads, salads, rice, burgers and side dishes.

9. In the past **6 months**, have you eaten **lentils** either in your home or at any type of restaurant? (If you would like to see the information or pictures of lentils again, please click here.) **[LENTIL INFORMATION SCREEN SHOULD OPEN UP IN A NEW WINDOW]**

Please select all that apply

Yes – at home
Yes – at a restaurant
No [SINGLE PUNCH]

[ASK Q10 TO Q12 IF YES – AT HOME IN Q9, ELSE SKIP TO CHICKPEA INFORMATION SCREEN]

10. How often do you, or do other members of your household, **eat** lentils at **home**? If you are not sure, please provide your best estimate.

Please select one response only

4 or more times per week
1 to 3 times per week
1-3 times per month
Less than once a month

11. In what form do you **purchase** lentils that you eat at **home**…?

Please select all that apply

Dried (bagged or bulk)
Canned
Soups (includes canned, dried, frozen or fresh)
Pre-prepared frozen meals or side dishes
Pre-prepared fresh meals
Other (please specify)

12. What types of dishes do you **make** with lentils **(whether bagged, bulk or canned)** at **home**?

Please select all that apply

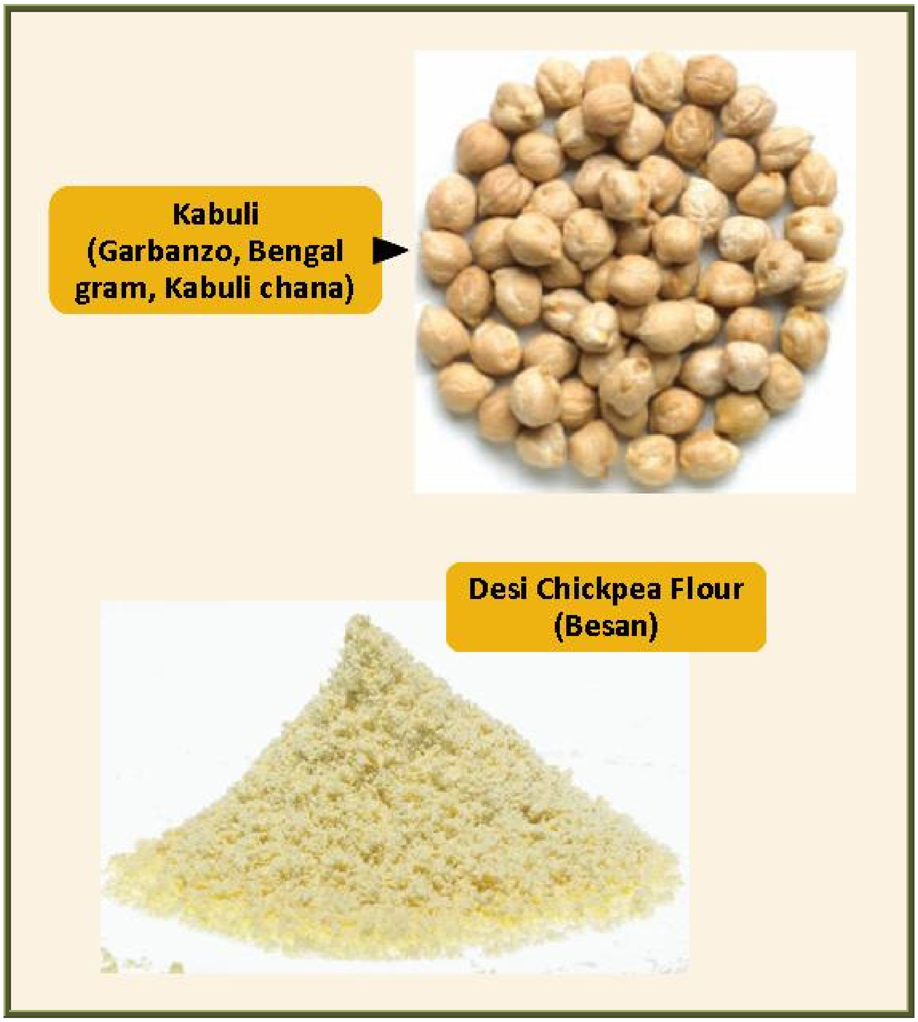
None – I only purchase lentils in pre-prepared forms (i.e. require heating or can be eaten cold)

Soups
Dal
Curries, Chili or Stews
Main dishes (e.g., casseroles)
Salads
Hot rice dishes
Burgers
Other (please specify)

[CHICKPEA INFORMATION SCREEN]

CHICKPEAS

There are several types of **chickpeas** and chickpea products – two are shown in the picture below. They are usually bought dried, canned or as dips or spreads.



Common dishes made with **chickpeas**: hummus and other dips, curries, falafel, burgers, salad, soup, stew, chili, rice, pasta and side dishes. Dishes made with chickpea flour include many East Indian dishes such as dosa, pakora, papadum and sweets (e.g. burfi, halwa, laddoo).

13. In the past **6 months**, have you eaten dishes made with **chickpeas** or chickpea flour either in your home or at any type of restaurant? (If you would like to see the information or pictures of chickpeas again, please click here.) **[CHICKPEA INFORMATION SCREEN SHOULD OPEN UP IN A NEW WINDOW]**

Please select all that apply

Yes – at home
Yes – at a restaurant
No [SINGLE PUNCH]

[ASK Q14 TO Q16 IF YES – AT HOME IN Q13, ELSE SKIP TO PULSE DEFINITION SCREEN]
14. How often do you, or do members of your household, **eat** dishes made with chickpeas or chickpea flour at **home**? If you are not sure, please provide your best estimate.

Please select one response only

4 or more times per week
1 to 3 times per week
1-3 times per month
Less than once a month

15. In what form do you **purchase** chickpeas that you eat at **home**…?

Please select all that apply

Dried (bagged or bulk)
Chickpea flour
Canned
Soups (includes canned, dried, frozen or fresh)
Dips or spreads (e.g. hummus)
Pre-prepared frozen meals or side dishes
Pre-prepared fresh meals
Other foods made with chickpea flour
Other (please specify)

16. What types of dishes do you **make** with chickpeas (whether bagged, bulk or canned) or chickpea flour at **home**?

Please select all that apply

None – I only purchase chickpeas in pre-prepared forms (i.e. require heating or can be eaten cold)

Hummus or other dips
Curries, Chili or Stews
Falafel
Burgers
Salads
Soups
Hot rice or pasta dishes
Indian dishes made with chickpea flour (such as dosa, pakora, papadum, burfi, halwa, laddoo)
Other products made with chickpea flour
Other (please specify)

[IF NO OR TO Q1 AND Q5 AND Q9 AND Q13, CLASSIFY AS NON-CONSUMER AND SKIP TO SECTION B. IF 4 OR MORE TIMES PER WEEK OR 1 TO 3 TIMES PER WEEK IN Q2 OR Q6 OR Q10 OR Q14, CLASSIFY AS MODERATE TO HEAVY CONSUMER AND CONTINUE WITH PULSE DEFINITION SCREEN. ALL OTHERS, CLASSIFY AS LIGHT CONSUMER AND CONTINUE WITH PULSE DEFINITION SCREEN.]

[PULSE DEFINITION SCREEN]
Dry beans, peas, lentils and chickpeas are collectively known as "pulses" or "legumes." For the remainder of this survey, we will refer to them as **pulses**. (Note: Pulses do not include fresh, frozen or canned green peas or beans, soy products, peanut products or mung beans).

[ASK Q17 IF YES – AT AT HOME IN Q1, Q5, Q9 OR Q13, ELSE SKIP TO INSTRUCTION BEFORE Q18]
17. Where do you usually **purchase** pulses that you use at **home**?

Please select all that apply

Regular grocery store or supermarket
Ethnic grocery store
Specialty stores (e.g. organic, bulk or health food stores)
Other (please specify)
Don't know

[ASK Q18 AND Q19 IF YES – AT A RESTAURANT IN Q1, Q5, Q9 OR Q13, ELSE SKIP TO Q20]
18. Approximately, how often do you eat dishes using pulses (dry beans, peas, lentils and chickpeas) at each of the following types of **restaurants**? If you are not sure, please provide your best estimate. Some examples of casual restaurants are chains, such as Montana's, East Side Mario's, Swiss Chalet, Boston Pizza, etc. Ethnic restaurants would include Indian, Mexican, Greek, Middle Eastern, Caribbean, African, Chinese restaurants, etc.

Please select one response for each item

[ACROSS TOP OF GRID]
4 or more times per week
1 to 3 times per week
1-3 times per month
Less than once a month

[DOWN SIDE OF GRID]
Fast food or take-out
Ethnic casual or fine-dining restaurant
Non-ethnic casual or fine-dining restaurant

19. What types of dishes made with pulses do you typically **eat** at **restaurants**?

Please select all that apply

Appetizer
Bread products
Soup
Salad
Main course
Dessert
None of the above

20. Thinking about a typical **week**, approximately, how many total cups of prepared foods that include pulses (beans, peas, lentils or chickpeas) would you eat? Please consider all locations (at home, in restaurants) and all forms (soups, chilis, dips, snacks). 1 cup is about the size of a baseball; ½ cup is about the size of an ice cream scoop; and, ¼ cup is about the size of a large egg.

Please select one response only

[DOWN SIDE OF GRID]
Main dishes (e.g. chilis, casseroles or curries) with pulses and meat, rice or pasta
Soups with pulses
Dips, spreads or snacks (e.g. hummus, pea snacks, snacks made with pulse flour)
Salads with pulses
All other pulse dishes (e.g. baked beans, chili without meat, falafels, dal, or refried beans)

[ACROSS TOP OF GRID]
None
Less than ¼ cup
About 1/4 cup to less than 1 cup
About 1 cup to less than 3 cups
3 cups or more

SECTION B: MOTIVATORS AND BARRIERS

[ASK Q21 TO NON-CONSUMERS]
21. What are the main reasons you do not eat pulses (dry beans, peas, lentils and chickpeas)?

Please be specific and detailed in your response

[VERBATIM RESPONSE]

[ASK Q22 TO LIGHT CONSUMERS AND MODERATE TO HEAVY CONSUMERS]
22. What are the main reasons you **eat** pulses (dry beans, peas, lentils and chickpeas)?

Please be specific and detailed in your response

[VERBATIM RESPONSE]

[ASK Q23 TO LIGHT CONSUMERS]
23. What are the main reasons you **don't eat** pulses **more often** (dry beans, peas, lentils and chickpeas)?

Please be specific and detailed in your response

[VERBATIM RESPONSE]

[ASK ALL RESPONDENTS]
24. Please indicate your agreement or disagreement with the following statements.

Please select one response for each item

[ACROSS TOP OF GRID]
Strongly disagree
Somewhat disagree
Somewhat agree
Strongly agree
Don't know
Not applicable

[DOWN SIDE OF GRID. RANDOMIZE ORDER.]
I like the taste of pulses
My family likes eating pulses
Pulses are part of my traditional diet
Pulses are convenient and easy to prepare
Pulses are an affordable source of protein
Pulses are nutritious
I don't know how to cook or prepare pulses
I don't think about including pulses in meal planning or preparation
Eating pulses causes gas, bloating or digestive problems
I am trying to choose vegetarian meals more often

MAXDIFF DESIGN

25. Which of the following factors is most important to you and least important to you when deciding whether or not to eat pulses? [MAXDIFF, FACTORS SHOWN IN GROUPS OF FOUR]

Please select one response for each column

Most important	Please select the factor that is most important and least important to you when deciding whether or not to eat pulses.	Least important
☐	Health benefits	☐
☐	Taste	☐
☐	Source of protein	☐
☐	Low in fat	☐
☐	Convenience or ease of preparation	☐
☐	Part of my traditional diet	☐
☐	Choosing vegetarian foods more often	☐
☐	Digestive considerations (gas, bloating)	☐
☐	Less expensive protein	☐
☐	Increasing fibre intake	☐

26. To what degree would each of the following factors influence your decision to purchase a processed food product containing pulses? The product could be a number of things such as pasta, crackers, cereal or a snack item. Please assume you have 100 points and can allocate 0 to 100 points to each factor.

Note, the total points allocated to all factors must equal 100

[RANGE: 0 TO 100]	✓ **Very high in fibre**
[RANGE: 0 TO 100]	✓ **Low in fat and saturated fats**
[RANGE: 0 TO 100]	✓ **A source of protein**
[RANGE: 0 TO 100]	✓ **Gluten free**
[RANGE: 0 TO 100]	✓ **Low in sodium**
[RANGE: 0 TO 100]	✓ **A good source of iron**
[RANGE: 0 TO 100]	✓ **An excellent source of folate**

[AUTOSUM. MUST =100]

27. Please indicate your agreement or disagreement with the following statements.

Please select one response for each item

[ACROSS TOP OF GRID]
Strongly disagree
Somewhat disagree
Somewhat agree
Strongly agree
Don't know

[DOWN SIDE OF GRID. RANDOMIZE ORDER.]
I am concerned about eating a healthy or balanced diet
I am concerned about weight control
I usually look at nutritional labels when purchasing packaged foods
Whenever possible, I purchase food that is made or grown in Canada
I like to try out new or different types of foods and recipes
I enjoy eating ethnic foods such as Latin American, East Indian or African cuisine
I look for healthy snacks
I have a busy, on-the-go lifestyle
I tend to buy the newest and latest foods in stores
I exercise to stay fit and healthy
Agricultural practices that are environmentally sustainable, are important in my food purchases

SECTION C: INFLUENCE OF INFORMATION

28. What follows are some facts about pulses, relating to personal health and the environment. Please indicate if knowing this information would make you more likely or less likely to eat pulses and pulse products.

Please select one response for each item

[ACROSS TOP OF GRID]
Much less likely
Somewhat less likely
Would make no difference
Somewhat more likely
Much more likely

[DOWN SIDE OF GRID. RANDOMIZE BLOCKS AND RANDOMIZE ORDER WITHIN BLOCKS.]
[BLOCK 1 – HEALTH BENEFITS]
Pulses are very high in fiber (15g dietary fiber per cup)
Pulses have a low Glycemic Index (GI) (i.e., control spikes in blood sugar and insulin after eating)
Pulses help reduce the risks of heart disease
Pulses help reduce the risks of diabetes
Pulses are high in vitamins and minerals
Pulses are free of fats and saturated fats
Pulses are gluten free
Pulses help control appetite
Pulses can help with weight control
[BLOCK 2 – ENVIRONMENTAL BENEFITS]
Pulse crops reduce overall greenhouse gases in the atmosphere
Pulse crops are good for soil health and sustainable agriculture
Canada is a world leader in growing pulses and these pulses are locally available for purchase

29. Where do you typically get your information on **healthy eating**?

Please select all that apply. If you can't recall the specific website, magazine or TV channel, simply type 'don't know' in the box provided.

[RANDOMIZE ORDER]
Internet web sites (Please specify – Which websites) [INSERT LARGE TEXT BOX]
Pulse growers and pulse companies (websites, brochures, etc.)
Magazines (Please specify – Which magazines) [INSERT LARGE TEXT BOX]
Cookbooks
Chefs
TV (Please specify – Which TV channels?) [INSERT LARGE TEXT BOX]
Friends, family or colleagues
Grocery store
Library
Canada's Food Guide
Newspapers
Nutrition or food labels
Health professional (physician, dietitian, nurse, etc.)
Social networking sites (e.g. Facebook, Twitter, MySpace)
[ALWAYS 2ND LAST] Other (Please specify) [INSERT LARGE TEXT BOX]
[ALWAYS LAST] Don't know

30. Where do you typically get your information about **preparing pulses**?

Please select all that apply. If you can't recall the specific website, magazine or TV channel, simply type 'don't know' in the box provided.

[RANDOMIZE ORDER]
Personal knowledge or experience
Internet web sites (Please specify – Which websites) [INSERT LARGE TEXT BOX]
Pulse grower and pulse companies (booklets, recipes, cooking tips, etc.)
Magazines (Please specify – Which magazines) [INSERT LARGE TEXT BOX]
Cookbooks
Chefs
TV (Please specify – Which TV channels?) [INSERT LARGE TEXT BOX]
Family
Friends or colleagues
Personal knowledge or experience
Dietitians or nutritionists
Grocery store
Library
Newspapers
Social networking sites (e.g. Facebook, Twitter, myspace)
[ALWAYS 2ND LAST] Other (Please specify) [INSERT LARGE TEXT BOX]
[ALWAYS LAST] Don't know

SECTION D: HEALTH PROFILE AND DEMOGRAPHICS

The final few questions are for statistical calculations. Please be assured all information will be kept completely confidential.

31. Are you or are any members of your household vegetarian or vegan?

Please select one response only

Yes
No
Decline to respond

32. Do you or does anyone in your household currently have…?

Please select all that apply

Heart disease or high blood cholesterol levels
Diabetes
Celiac disease
None of the above
Decline to respond

33. For your height and age would you say you are…?

Please select one response only

Very overweight
Somewhat overweight
Average weight
Somewhat underweight
Very underweight
Decline to respond

34. Have you (or other family members living in your household) been advised by a health professional that your weight may cause health problems now or in the future?

Yes
No
Decline to respond

35. In what year were you born?

Please select one response only

DROP-DOWN BOX [RANGE: 1900 TO 1991]
Decline to respond [BELOW DROP-DOWN BOX]

36. Including yourself, how many people live in your household?

Please select one response only

DROP-DOWN BOX [RANGE: 1 to 20]
Decline to respond [BELOW DROP-DOWN BOX]

[ASK Q37 IF TWO OR MORE IN Q36]
37. How many children in each of the following age groups live in your household?

Please select one response for each item

Under the age of 1 [DROP-DOWN BOX. RANGE: 0 TO 10]
Between the ages of 1 and 5 [DROP-DOWN BOX. RANGE: 0 TO 10]
Between the ages of 6 and 18 [DROP-DOWN BOX. RANGE: 0 TO 10]
Decline to respond [BELOW DROP-DOWN BOXES]

38. What is the highest level of schooling that you have completed?

Please select one response only

Grade school or some high school
Completed high school
Some university, college or post secondary technical school
Graduated college or post secondary technical
Completed university undergraduate degree
Completed university post graduate degree
Decline to respond

39. For how many years have you lived in Canada?

Please select one response only

Born and raised
More than 20 years
11 to 20 years
6 to 10 years
3 to 5 years
1 or 2 years
Less than one year
Decline to respond

[IF BORN AND RAISED IN CANADA OR DECLINE TO RESPOND IN Q39, SKIP TO Q41]
40. How old were you when you left your country of birth?

Please select one response only

Under the age of 12
12 to 17
18 or older
Decline to respond

41. As you know, we all live in Canada, but our ancestors come from many different ethnic backgrounds. What is the **main** ethnic background of your ancestors?

Please select one response only

South Asian (Punjabi, Indian, Tamil, Sri Lankan, Pakistani, Bangladeshi, Nepalese)
West Asian or Middle Eastern (from Israel, Iraq, Lebanon, Saudi Arabia, Syria, Turkey or other)
East or Southeast Asian (from China, Hong Kong, Japan, North or South Korea, Indonesia, Singapore, Thailand, Vietnam or other)
African
British (English/Scottish/Welsh/Irish)
European (French, German, Greek, Italian, Spanish, Ukrainian, Polish, Hungarian, Serb, or other)
Latin/South American (Guatemalan, Nicaraguan, Mexican, Brazilian, Peruvian, Columbian, Ecuadorian, or other)
Canadian
Aboriginal/First Nations/Métis
Other (Specify)
Decline to respond

42A. Which of the following best describes where you live?

Please select one response only

Acreage, ranch or farm
Town of less than 10,000 people
City with 10,000 to l50,000 people
City of more than 50,000 people
Decline to respond

42. Which of the following categories best describes the total annual income for all members of your household, before taxes?

Please select one response only

Less than $30,000
$30,000 to just under $60,000
$60,000 to just under $100,000
$100,000 or more
Decline to respond

Focus Group Recruiting Screener

Pulse Consumption Focus Groups
FINAL Recruiting Screener: January 14, 2010

Tuesday, January 26th EDMONTON	GROUP A: Non-consumers & light consumers	5:30pm	Recruit 10 for 8 to 10 to show
	GROUP B: Light, moderate & heavy consumers	7:30pm	
Thursday, January 28th TORONTO	GROUP A: Non-consumers & light consumers	5:30pm	
	GROUP B: Light, moderate & heavy consumers	7:30pm	

INTRODUCTION

Hello, my name is _______________ and I'm calling from Ipsos Reid, the professional public opinion research company. From time to time, we gather opinions by sitting down and talking with people. We are preparing to conduct a series of these discussion sessions about healthy eating.

The sessions will be held on [INSERT: January 26th in Edmonton / January 28th in Toronto]. The session will last about **1.5 hours** and refreshments will be served. Those who qualify and attend will receive **$75** as a token of our appreciation.

1. Would you be interested in participating?

❑ Yes	**CONTINUE**
❑ No	**THANK & TERMINATE**

Great! I just need to ask you a few questions to determine which group to invite you to.

2. RECORD GENDER **[DO NOT ASK]**

❑ Male	**MINIMUM 3 MALES PER GROUP**
❑ Female	**MINIMUM 3 FEMALES PER GROUP**

3. Do you or does anyone in your household work in the pulse industry? That is as a grower, producer, processor, wholesaler, distributor or marketer of beans, peas, lentils or chickpeas.

❑ Yes	**THANK & TERMINATE**
❑ No or Don't know	**CONTINUE**

4. Do you have primary or shared responsibility for making decisions about your household's eating and meal planning?

❑ Yes	**CONTINUE**
❑ No	**THANK & TERMINATE**

5. Were you born and raised in Canada?

❑ Yes	**SKIP TO Q7**
❑ No	**MAXIMUM 4 PER GROUP. CONTINUE WITH Q6.**

6. What is your **main** ethnic background? **[DO NOT READ LIST]**

❑ South Asian - Indian, Tamil, Punjabi, Pakistani, Sri Lankan, Bangladeshi, Nepalese	**MAXIMUM 2 PER GROUP**
❑ West Asian or Middle Eastern – from Israel, Iraq, Jordan, Kuwait, Lebanon, Oman, Palestinian Territories, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates or Yemen	
❑ African – Any country in Africa	
❑ Latin or South American – Guatemalan, Nicaraguan, Mexican, Brazilian, Peruvian, Columbian, Ecuadorian, etc.	
❑ Caribbean – for example, Jamaican, West Indies, etc.	
❑ Other	**CONTINUE**

7. Which of the following categories best describes your age? **[READ LIST]**

❑ Under 18	**THANK & TERMINATE**
❑ 18 to 24	**MINIMUM 1 PER GROUP /MAXIMUM 2 PER GROUP**
❑ 25 to 34	**MINIMUM 2 PER GROUP / MAXIMUM 3 PER GROUP**
❑ 35 to 54	**MINIMUM 4 PER GROUP**
❑ 55 or older	**MINIMUM 2 PER GROUP / MAXIMUM 3 PER GROUP**

8. Which of the following is the highest level of education you have had the opportunity to obtain? **[READ LIST]**

❑ Completed high school or some high school	**ENSURE A GOOD MIX**
❑ Some post-secondary such as technical school, college or university	
❑ Completed technical school or college	
❑ Completed a university degree	

I'd like to ask you about your consumption of different types of foods.

9. Are you or are any members of your household vegetarian or vegan?

❑ Yes	**MAXIMUM 2 PER GROUP**
❑ No	**CONTINUE**

10. Dry beans, peas, lentils and chickpeas are collectively known as pulses. They are usually bought dried, canned or as dips or spreads. Common dishes or foods with pulses include chili, refried beans, dips or spreads such as hummus, soup, salad, curries, stew, rice, pasta, burgers and side dishes.

In the **past 6 months** have you eaten any dishes made with dried beans, dried peas, lentils or chickpeas in your **home**?

❑ Yes	**CONTINUE WITH Q11**
❑ No	**CLASSIFY AS NON-CONSUMER** **HARD QUOTA: 5 PER GROUP A** **SKIP TO Q12**

11. How often do you, or do other members of your household eat dishes made with pulses – that is, dried beans, dried peas, lentils or chickpeas – at **home**? Would you say…? [READ LIST]

❑ 4 or more times per week	**CLASSIFY AS HEAVY CONSUMER.** **MAXIMUM 3 PER GROUP B**
❑ 1 to 3 times per week	**CLASSIFY AS MODERATE CONSUMER**
❑ 1 to 3 times per month	**CLASSIFY AS LIGHT CONSUMER** **HARD QUOTA: 5 PER GROUP A** **HARD QUOTA: 4 PER GROUP B**
❑ Less than once a month	

12. Thank you. We would like to invite you to participate in the group being held on [**INSERT DATE AND TIME**]. Will you be able to attend?

❑ Yes	**CONTINUE**
❑ No	**THANK & TERMINATE**

Great! I'll give you the address for the session. The focus group will be held at **[INSERT LOCATION]**. As I mentioned before, the discussion will last approximately **1.5** hours, refreshments will be served and if you attend the group we will pay you **<u>$75</u>** for your time and effort. Please arrive 10 minutes early to make sure we start on time.

We are reserving a special place for you at this session. There will only be about 8 to 10 people attending, so if for any reason you cannot attend, please call [**INSERT NAME AND NUMBER**] as soon as possible so we can select someone else to take your place.

Also, someone from our office will be calling you back to confirm these arrangements a couple of days prior to the session. Could I please have your name and a phone number where we can reach you during the day and in the evening?

First name	
Daytime Phone	
Evening Phone	

One last thing I want to mention. During the session you may be asked to review written information; I'm letting you know this in case you need to bring glasses along.

Thank you for agreeing to participate! We look forward to seeing you!

Focus Group Discussion Guide

Factors Influencing Pulse Consumption
Discussion Guide (FINAL)
January 22, 2010 (1.5 hours)

Introduction (10 minutes)

Moderator introduces Ipsos, moderator, and explain focus group objectives:

- Welcome and thanks
- Introduce Ipsos Reid
- FGs are an informal chat – like sitting around your kitchen table
- Role of moderator – come up with the topics of conversation, here to learn what you have to say, make sure I hear from everyone
- Role of participants – honest opinions, no right/wrong answers, no need to come to a consensus, no answer is stupid
- Explain taping/window
- Everything strictly confidential – not listed as participants, comments not attributed
- Moderator has no stake in the research
- Self-introduction of respondents
    - Name
    - The area of Edmonton/Toronto you live in
    - How long you've lived in Edmonton/Toronto
    - A bit about your household (kids, pets, significant other etc.)
    - Something weird and quirky about yourself

Warm-up discussion – Developing a Food and Lifestyle Persona (15 minutes)

To get things started, I'm going to ask you all to stand up and push your chairs away from the table. We're going to spread out about 300 different pictures that people can use to describe their feelings about a certain topic.

There are pictures of people's facial expressions, people doing different things, and some abstract pictures. I'm going to give you a topic and individually, I'm going to ask you to sift through these pictures to help tell your own story about your feelings on this particular topic. I'd like you to try and get a mix of both <u>positive</u> and <u>negative</u> images for your story.

You can pick as many or as few pictures are you'd like.

- The topic we're going to discuss today is: **My Lifestyle**

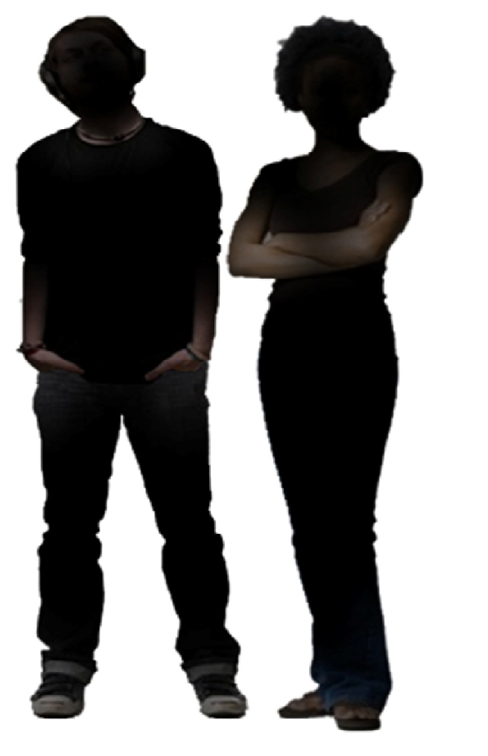
Participants are given 5-6 minutes to sift through the images individually.

Ok, let's spend a few minutes chatting about what you've come up with…
Probes:

- What about that picture helps you tell your story?
- Is that feeling something new or something you've experienced for a while?
- What's causing you to feel that way?

For the next few minutes, I want to talk about something a few of you brought up – food. I want you to think about how food is incorporated into your day-to-day life. Everything from planning, the types of foods you buy, where you shop, how you shop, etc etc. I want you to be as descriptive as possible so that if someone were to pick up this piece of paper, they'd know your "food-related personality" by reading the words and phrases on here.

Each of you is going to get a large sheet of paper with this picture on it and I want you to use markers, pens, whatever you'd like to write up your food personality.



Debrief Food Persona

Let's talk about what you've each come up with…

- What types of words did you use to describe food as part of your life?
- How do you shop?
- Where do you shop? Why?
- How do you come up with what you're going to cook/eat?

- What resources do you turn to today for cooking/food?
- Favourite types of food? Why?
- Favourite recipe? Why?
- How many of you have healthy choices on your persona? Why/Why not?
    - How do you learn about making healthy food choices?
    - What do you consider healthy food choices? Why?
    - Where do you go to learn about making healthy food choices?
        - Magazines?
        - TV Shows?
        - Other?

Perceptions about Pulses (15 minutes)

Ok, I have another fun activity for us…

I've got a whole bunch of cards posted around the room. We need to fill up all these cards and if we run out I've got another stack right here.

I'm going to announce a topic and I want you to say everything that pops into your mind when you think about that topic. It could be a word or a phrase and it could be positive, negative or neutral and no idea is silly. I want you to get me to write so much that I get tired out!

Pulses – (to be defined by colours for each pulse type: *beans, peas, lentils or chickpeas*)

Let's look through these words and phrases and group them …

UNSTICK WORDS AND GROUP TOGETHER BASED ON PARTICIPANT SUGGESTIONS

- How would we name these groups?
- Which of these themes do you see as being most prominent?
- How do these groups compare in terms of importance?
- Why do you feel this way?
    - Anticipated buckets include:
        - Taste
            - Probe: Can you give me an example of a pulse dish that didn't taste very good? Did taste good?
        - Preparation
            - Probe: Is this based on your own experience? Perceptions? Why?
        - Health benefits
            - Probe: Can you expand on health benefits? What exactly do you mean?

Deep Dive into Pulses (20 minutes)

We're going to spend the next few minutes talking about pulses in your daily lives…

Let's take a look at a few pictures and products…***(MODERATOR TO SHOW PICTURES OF PULSES AND PRODUCTS PROVIDED BY PULSE CANADA/AB PULSE GROWERS)***

- How often do you consume pulses?
    - Which ones specifically? Why?
- How do/would you go about buying them? Where?
- Why don't you consume more?
    - Probe Barriers: Tell me more about…
        - Taste
        - Texture/Look
        - Convenience
        - Preparation
- What types of foods do you eat today that contain pulses?
- Do you know any recipes that call for pulses?
- Do you look for dishes with pulses at restaurants? Is it top of mind? Why or why not?
- What would make you want to consume more?
- Are you aware of any health benefits from consuming pulses?
    - Probe: Fiber/protein/fat versus diabetes/heart diseases, weight gain

Review of Education Materials & Message Testing (15 minutes)

I'm going to pass out a sheet that I'd like you to take a few minutes to review. I want you to imagine that ***you were reading this information online or in a magazine and it was trying to get you to eat more pulses in your own day-to-day lives***.

As you read through them, I'd like you to circle anything that you really like or that you found interesting in **green**. Anything that you don't like I'd like you to circle in **red.**

1. **Lose weight:** Recent research from the University of Toronto has shown that eating pulses can increase feelings of fullness or satiety and reduce waist circumference.
2. **Increase your fibre intake:** One cup of cooked pulses contains approximately 15 grams of fibre or around half the recommended daily intake for adults.
3. **Decrease your fat and saturated fat intake:** Canada's Food Guide recommends choosing meat alternatives like beans, peas, chickpeas and lentils more often since they provide protein but don't add fat and saturated fat to your diet.
4. **Be heart healthy:** Regular intake of beans or other pulses have been shown to significantly reduce serum cholesterol and other blood lipids, major risk factors for heart disease.
5. **Add variety to your diet:** Spice up your daily diet by trying new ethnic foods like chickpea curry, lentil dal, bean burritos or do a healthy new twist on an old favorite by adding chickpeas to a salad, putting black beans on your pizza or adding a can of lentils to spaghetti sauce.

6. **Choose environmentally-wise foods:** Pulse crops naturally produce their own nitrogen, reducing reliance on fertilizers and lowering energy inputs.

7. **Improve your endurance:** Researchers from the University of Saskatchewan have found that eating lentils as a pre-exercise meal was beneficial for endurance exercise.

8. **Save money:** Pulses are an affordable, healthy food. A can of chickpeas is packed full of nutrients but costs as little as $1.

9. **Eat your veggies:** Enjoy healthy snacks like carrots, celery and other vegetables served with hummus or bean dips.

10. **Live better:** Eating pulses can help prevent chronic diseases such as diabetes, heart disease and cancer.

Ok, let's chat about these…

- Overall, what did you think about this material?
    - Is this new information? Did it peak your interest?
- What did you find MOST interesting in these sheets?
- Should you, as a consumer, have known about this information before today?
- Did reading this information have an impact on your views about pulses? Why/Why not?

Next, I'm going to show you a series of different messages that have been developed. I want you to keep in mind that these are just some initial ideas and we're looking for your open and honest feedback on them.

Debrief for each message

- What's your overall reaction to this message? Why?
- What do you like most?
- What do you like least?
- What could be improved?
- Does this message make you want to consume more pulses? Why/Why not?

Building the Ideal Message & Resource (15 minutes)

For the last few minutes, I'm going to divide you into teams to work on an activity.

We've spent a lot of time tonight talking about pulses, different types of information and the a few messages. I want you to imagine that you are the clients for a minute, the people whose job it is to get more Canadians to consume pulses. So as a group, I want you to come up with the BEST message(s) possible that would convince you, your family and friends to start consuming more pulses.

I also want you to think about the types of resources and/or information that you would like.

Moderator will debrief each group's final template.

Conclusion (5 minutes)

- **MODERATOR TO PASS OUT SEGMENTATION BATTERY SHEETS**
- Final remarks/questions from the back room