## Questionnaire used for round 1

This questionnaire aims to develop an index to measure adherence to the traditional Mexican diet (TMexD) in present time and in adults (>20 years) ${ }^{1}$. Constructing this index could enable us, and other researchers, to use a consistent definition of this diet, which could be used to evaluate in research or in practice if adhering to the TMexD is associated with some health outcomes.

In order to develop such index, we previously conducted a review to identify which foods could be included in the TMexD. We would like to know if you agree or disagree with the inclusion of those foods in the TMexD.

In the first section, you will suggest the foods (and their amounts) that you think need to be included in a TMexD index. In the second section, you will be able to suggest which foods need to be included in each food group. At the end of the questionnaire you will be able to add final comments (optional).

Please enter your 4-digit ID number:
Please select your area or work: Research/ consultancy/ non-governmental organization/ teaching/ government/ industry/ private practice.

## First section

a. The following food groups were mentioned in most sources describing the TMexD. Please answer, based on your knowledge (or the evidence you consider appropriate) whether you agree or disagree on including the following food groups in the TMexD. If you agree on the inclusion of a food group, please select the weekly frequency ( $<1$ to 7 days per week), and the daily portions in which it is consumed in the TMexD ${ }^{2}$.
b. For example, if you were completely sure on including fruits as part of the TMexD, you would suggest completely agree. And if you thought that in the TMexD fruits are consumed 4 times per week and on each day 2 portions are consumed; you would select 4 in weekly frequency and 2 in daily portions. For each category, we have provided a link with visual aid to help you understand the servings corresponding to each food group.

| Food item | Inclusion in the TMexD |  | Frequency ( $<\mathbf{1} \mathbf{- 7 )}$ | Amount ( $<\mathbf{1}-\mathbf{7 +}$ ) |
| :---: | :---: | :---: | :---: | :---: |
|  | Completely disagree | Completly agree |  | (per week) |
| Maize products | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Other grains | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

[^0]
c. In the systematic review, we also analysed separately the sources reporting a TMexD using literature reviews (e.g. those that reviewed historical or anthropological sources) and empirical studies (e.g. those that directly observed the diet of the population). Additionally, we analysed separately the sources reporting the TMexD in the North, Centre, and South of Mexico.

By analyzing these studies separately, we identified other food groups that were mentioned. However, these food groups, unlike the ones presented above, were not present in all study types. For example, some were mentioned in literature reviews and studies reporting intakes in Central and Southern Mexico, but not in original studies and those referring to Northern Mexico.

Please answer whether you agree or disagree on including the following food groups in the TMexD. If you agree on the inclusion of a food group, please select the weekly frequency ( $<1$ to 7 days per week), and the daily portions in which it is consumed in the TMexD. For each category, we have provided a link with visual aid to help you understand the servings corresponding to each food group.

Note: Food groups with an asterisk (*) were only present in studies based on literature reviews. Food groups with a cross ( $\dagger$ ) were only present in empirical studies. Food groups with an ${ }^{\mathrm{N}}, \mathrm{C}, \mathrm{S}$, ALL were only present in studies referring to the North, Centre, South Mexico, and all regions on Mexico, respectively.

d. If you think that other food groups, apart from the ones previously mentioned, need to be included in the TMexD, please suggest them below: $\qquad$
*The food groups suggested by participants and added in following rounds can be found in Supplementary materials I, Table S2.*
*Another modification was amending the group 'maize products', as $32 \%$ of participants commented on the complexity of suggesting quantities and food items in such a mixed food group. As such, this group was split into 'maize products' (e.g., tortilla) and 'maize-based dishes' (e.g., tacos).*
e. In the TMexD index, do you think all the food groups (that you selected) are equally important and should have equal weight? Or do you think they should have different weights? For example, if one were to measure adherence to the TMexD with this index, would you give one point to each food group which recommendation is met, or would you give two points to certain food groups?, or, would you subtract one point when its recommendation is not met?
i. All food groups should be assigned one point (when its recommendation is met)
ii. Some food groups should be assigned two points (when its recommendation is met) (please list the food groups that should be awarded two points)
iii. Some food groups should be assigned minus one point (when its recommendation is not met) (please list the food groups that should be awarded minus one point)
*Option iii was omitted from following rounds given that less than $50 \%$ of participants selected it in round one, and because no participants nominated any food group to be evaluated using this measure.*

## Second section

a. Do you think that the following items should be considered in the index to measure adherence to the TMexD? Select the ones that you consider appropriate:

- Cooking your own meals
- Using traditional cooking techniques
- Eating with family and friends
- Other (please specify) $\qquad$

If you agree on including one or more of these elements, in which way do you think they should be evaluated in an index? For example, do you think the individuals following these actions should be awarded one point?
*The options suggested by participants and added in following rounds can be found in Supplementary materials I, Table S9.*

## Third section

a. In the systematic review, the following individual food items were present in the food groups previously mentioned. Please answer whether you agree or disagree with the inclusion of these food items in each food group in the TMexD.

Note: Food items with an asterisk $\left({ }^{*}\right)$ were only present in studies based on literature reviews. Food items with a cross $(\dagger)$ were only present in studies that directly assessed diet consumption (empirical studies). Food groups with an N, C, S, ALL were only present in studies referring to the North, Centre, South Mexico, and all regions on Mexico, respectively.

| Food item | Agree | Neither agree nor disagree | Disagree |
| :---: | :---: | :---: | :---: |
| Maize products |  |  |  |
| Atole | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Pinole | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Tortillas | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Tamales | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Mixed ${ }^{\text {ALL }}$ (sopes, palomitas, gorditas, tostadas, totopos) | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Soups (pozole, menudo) ${ }^{\text {ALL }}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Others (please specify), or use this space to comment on this food group |  |  |  |
| Other grains |  |  |  |
| Amaranth | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Rice | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Wheat (bread, pasta, tortillas) | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Others (please specify), or use this space to comment on this food group |  |  |  |
| Tubers |  |  |  |
| Potato | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Sweet potato | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Yucca *, S, ALL | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

Others (please specify), or use this space to comment on this food group

## Legumes

Beans
$\bigcirc$
Others (please specify), or use this space to comment on this food group
Vegetables
Squash

| Chayote | O | O | O |
| :---: | :---: | :---: | :---: |
| Nopales | $\bigcirc$ | O | $\bigcirc$ |
| Quelites | O | O | $\bigcirc$ |
| Tomato | O | $\bigcirc$ | $\bigcirc$ |
| Tomatillo | O | $\bigcirc$ | $\bigcirc$ |
| Carrot ${ }^{\text {ALL }}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Guaje ${ }^{\text {s }}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Huauzontle ${ }^{\text {c }}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Lettuce ${ }^{\text {ALL }}$ | O | O | O |
| Mushrooms * C, S,ALL | O | $\bigcirc$ | $\bigcirc$ |
| Papaloquelite ${ }^{\text {s }}$ | O | $\bigcirc$ | $\bigcirc$ |
| Purslane ${ }^{\text {S.all }}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Squash blossoms ${ }^{\text {ALL }}$ | $\bigcirc$ | $\bigcirc$ | O |

Others (please specify), or use this space to comment on this food group

| Fruits |  |  |  |
| :---: | :---: | :---: | :---: |
| Anona | $\bigcirc$ | O | $\bigcirc$ |
| Capulin | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Guava | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Jicama | $\bigcirc$ | $\bigcirc$ | O |
| Mamey | $\bigcirc$ | O | $\bigcirc$ |
| Plums | $\bigcirc$ | O | $\bigcirc$ |
| Prickly pear | $\bigcirc$ | O | $\bigcirc$ |
| Zapote | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Apple ${ }^{\text {aLL }}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Banana $\dagger^{\text {N,ALL }}$ | $\bigcirc$ | $\bigcirc$ | O |
| Berries (strawberry, blueberries, etc.) ${ }^{\text {ALL }}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Citrus fruits (orange, lemon, lime, mandarin, grapefruit) $* \oplus_{\uparrow}^{\text {N,ALL }}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Guanábana *s | O | $\bigcirc$ | O |
| Mango ALL | $\bigcirc$ | $\bigcirc$ | O |
| Melon ${ }^{\text {ALL }}$ | $\bigcirc$ | $\bigcirc$ | O |
| Peach ${ }^{\text {ALL }}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Nanche ${ }^{\text {s }}$ | $\bigcirc$ | O | $\bigcirc$ |
| Pear ${ }^{\text {ALL }}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Pitahaya ALL | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Papaya *s | $\bigcirc$ | $\bigcirc$ | O |
| Pineapple * | O | O | $\bigcirc$ |

Others (please specify), or use this space to comment on this food group

| Herbs and condiments |  |  |  |
| :---: | :---: | :---: | :---: |
| Salt | O | O | O |
| Chile or salsa | O | $\bigcirc$ | O |
| Onion | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Achiote ${ }^{\text {ALL }}$ | O | $\bigcirc$ | $\bigcirc$ |
| Acluyo or hoja santa ${ }^{\text {s,all }}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Chipilin ${ }^{\text {s }}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Coriander ${ }^{\text {ALL }}$ | O | O | O |
| Epazote * C , S, ALL | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Garlic ALL | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Parsley ALL | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Pepper ALL | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Vanilla ${ }^{\text {\% C,all }}$ | O | O | O |

Others (please specify), or use this space to comment on this food group
Oils and fats

| Avocado | $\bigcirc$ |
| :--- | :---: |
| Cream $^{\text {ALL }}$ | $\bigcirc$ |
| Lard $^{\text {S }}$ | $\bigcirc$ |
| Vegetable oil $_{\dagger}+$ ALL | $\bigcirc$ |

Others (please specify), or use this space to comment on this food group

| Nuts and seeds |  |
| :--- | :---: |
| Chia seeds | $\bigcirc$ |
| Pumpkin seeds | $\bigcirc$ |
| Peanuts $*, C$, ALL | $\bigcirc$ |
| Sesame seeds ${ }^{\text {ALL }}$ | $\bigcirc$ |

Others (please specify), or use this space to comment on this food group

## Beverages

Cacao drinks


Natural juices
Aguas frescas ${ }^{\mathrm{ALL}}$

Tea $\dagger$
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$

Nuts and seeds
Chia seeds
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\qquad$ .

Pulque
$\bigcirc$
$\bigcirc$
$\bigcirc$
Pozol agrio ${ }^{\text {C, }}$ (fermented maize beverage)
Tesgüino ${ }^{\text {ALL }}$ (fermented maize beverage)
O
O
O
O


O

Others (please specify), or use this space to comment on this food group

## Fish and seafoods

Catfish ${ }^{\text {S }}$
$\bigcirc$

Shrimp *, C, S, ALL
$\bigcirc$

Others (please specify), or use this space to comment on this food group

## Meats

| Armadillo | $\bigcirc$ |
| :--- | :---: |
| Chicken | $\bigcirc$ |
| Duck | $\bigcirc$ |
| Hare | $\bigcirc$ |
| Rabbit | $\bigcirc$ |
| Turkey | $\bigcirc$ |
| Venison | $\bigcirc$ |
| Beef *,ALL | $\bigcirc$ |
| Chevon ${ }^{\text {ALL }}$ | $\bigcirc$ |
| Lamb ${ }^{\text {alL }}$ | $\bigcirc$ |
| Partridge ${ }^{\text {S }}$ | $\bigcirc$ |
| Pork * | $\bigcirc$ |


| 0 | 0 |
| :--- | ---: |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |

$\bigcirc$
$\bigcirc$
$\bigcirc$
○
○
○
○
○
○
○
○
$\bigcirc$

Others (please specify), or use this space to comment on this food group

## Sweets and sweeteners

Honey

$\square$
Sugar and sugarcane

Sweets ${ }^{\text {ALL }}$
Others (please specify), or use this space to comment on this food group
Insects
Ahuahutle ${ }^{\mathrm{C}}$ (water-fly eggs)
Ants and their larvae (jicoteras,
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
Maguey worms *, C,S


Others (please specify), or use this space to comment on this food group

## Reptiles

Iguana *, C, S
Others (please specify), or use this space to comment on this food group

*The foods suggested by participants in each group can be found in Supplementary materials I, Table S11. The comments suggested by participants, which resulted in questions to improve the index, can be found in Supplementary materials I, Table Sl.*
b. If a person consumes other foods apart from the ones you selected, would you still consider them for inclusion in the TMexD index? For example, if fruits were part of the TMexD index, and one person only consumed kiwi (which is not one of the fruits listed), would you still provide one point for meeting the fruit group recommendation? $\qquad$
c. If you think something else should be added or modified in the questionnaire, please suggest it below:

## Thank you for completing this questionnaire. We will be in touch with you soon in order to complete the second-round questionnaire.

## 1 PORTION IS EQUIVALENT TO:

## MAIZE PRODUCTS

1 tortilla $^{(1)}$

## OTHER GRAINS

$1 / 2$ cup of rice or pasta ${ }^{(1)}$ (the size of your fist)
Or
1 slice of bread ${ }^{(1)}$

## TUBERS

$1 / 2$ large potato or 1 small potato ${ }^{(1)}$

## LEGUMES

$1 / 2$ cup of chickpeas, beans, lentils, or peas ${ }^{(1)}$ (the size of your fist)

## VEGETABLES

1 large carrot, 1 cup broccoli, 1 tomato, $1 / 2$ maize $\operatorname{cob}^{(2)}$ (approx. 80 g$)(1$ handful)
OR
1 cup green leaves (approx. 80 g$)^{(2)}(2$ handfuls)

## FRUITS

1 cup of pineapple, grapes, melon, strawberries, watermelon, or papaya (approx. 80 g$)^{(1)}$ (the size of your fist)

## BEVERAGES

$1 / 2$ glass of juice ${ }^{(2)}$
Or
1 cup of chocolate/atole ${ }^{(3)}$
Or
2 glasses of aguafresca ${ }^{(4)}$
Or
1 cup of tea/coffee ${ }^{(2)}$

## ALCOHOLIC BEVERAGES

1 jar of pulque ${ }^{(3)}$
Or
1 pint of beer ${ }^{(5)}$

## MEATS

60 g cooked (the size of the palm of your hand) ${ }^{(1)}$

## FISH AND SEAFOOD

60 g cooked (the size of the palm of your hand) ${ }^{(1)}$

## HERBS AND CONDIMENTS

There are no pre-established portions of herbs and condiments. Consider one portion as cooking/eating with these ingredients once per day.

## FATS AND OILS

$1 / 3$ avocado $^{(2)}, 1$ tablespoon of cream ${ }^{(2)}$, or 1 teaspoon of oil ${ }^{(2)}$

## NUTS AND SEEDS

1 handful of nuts (approx. 30 g ) ${ }^{(1)}$

## DAIRY PRODUCTS

1 glass of milk ${ }^{(2)}$, or the size of 2 fingers of cheese (approx. 30 g$)^{(6)}$

## EGGS

$1 \operatorname{egg}^{(1)}$

## INSECTS

1 handful of insects (approx. 30 g$)^{(1)}$

## REPTILES

60 g cooked (the size of the palm of your hand) ${ }^{(1)}$

## MAIZE-BASED DISHES

1 tamal $^{(7)}$
Or
2 tlacoyos, sopes, chalupas ${ }^{(8)}$
Or
1 bowl of pozole ${ }^{(9)}$
QUELITES
1 cup of quelites ${ }^{(2)}$ (2 handfuls)

## PLAIN WATER

1 glass of plain water ${ }^{(10)}(240 \mathrm{ml})$

## CHILE

There are no pre-established portions of chiles. Consider one portion as cooking/eating with these ingredients once per day.

## NATURAL SWEETENERS/SWEET PRODUCTS

2 teaspoons of honey or sugar ${ }^{(2)}$
Or
2 small pieces of candy ${ }^{(2)}$

## References for portion sizes and images:

The portion sizes were selected based on standard portion sizes from The British Dietetic Association ${ }^{(11)}$, Pérez Lizaur et al. ${ }^{(12)}$ and Juárez Martínez ${ }^{(13)}$.

1. OnnLife. Porciones de los alimentos [Internet]. No date [cited 2019 Aug 30]. Available from: https://www.onnlife.com/blogs/porciones-de-los-alimentos/
2. Healthy Food Guide. Portion size guide [Internet]. [cited 2019 Aug 30]. Available from: https://www.healthyfoodguide.com.au/sites/default/files/HFG 0915_Portion Poster.pdf
3. Fonseca Malta, JC. Atole de puscua de Dolores Hidalgo, Guanajuato, México [Internet] 2019 [cited 2019 Aug 30]. Available from:
https://es.wikipedia.org/wiki/Archivo:Atole_de_puscua_Guanajuatense.jpg Distributed under a CC BY-SA 4.0 license.
4. Author unknown. Fresh lime drinks macro shot [Internet]. 2019 [cited 2018 Aug 30]. Available from: https://pxhere.com/es/photo/1443979. Distributed under a CC01.0 license.
5. Perea Esparza, F. Cerveza... mmmmm [Internet]. 2010 [cited 2019 Aug 30]. Available from: https://www.flickr.com/photos/9106358@N07/4868765419 Distributed under a CC BY-SA 2.0 license.
6. Nutriplato. ¿Cuánto hay que comer? [Internet]. [cited 2019 Aug 30]. Available from: https://www.nutriplatonestle.es/que-es/raciones-de-alimentos.html
7. stu_spivak. Tamale [Internet] 2008 [cited 2019Oct16]. Available from: https://www.flickr.com/photos/35034346243@N01/2855204858 Distributed under a CC BY-SA 2.0 license.
8. Luisalvaz. Sopes de Pabellón de Arteaga, Aguascalientes [Internet]. 2014 [cited 2019Oct16]. Available from:
https://commons.wikimedia.org/wiki/File:Sopes_de_Pabell\�\�n_de_Arteaga,_Aguas calientes_03.jpg. Distributed under a CCBY-SA4.0 license.
9. Thelmadatter. White pozole (one of the variations of pozole) served at a restaurant in Mexico City, sprinkled with chili powder and oregano [Internet]. 2009 [cited 2019Oct16]. Available from: https://commons.wikimedia.org/wiki/File:WhitePozoleDF.JPGDistributed under a CCBY-SA3.0 license.
10. Unknown author. Apple and water [Internet]. 2017[cited 2019Oct16]. Available from: https://pxhere.com/es/photo/949766. Distributed under a CC01.0 license.
11. The British Dietetic Association. Food Fact Sheet. Portion Sizes [Internet]. 2019 [cited 2020 Aug 31]. Available from:
www.bda.uk.com/foodfactshttps://www.bda.uk.com/uploads/assets/691e1d1b-dac5-4427-af323abe70429a16/Portion-sizes-food-fact-sheet.pdf
12. Pérez Lizaur AB, Palacios González B, Castro Becerra AL, Flores Galicia I. Sistema Mexicano de Alimentos Equivalentes. 4th ed. D.F., Mexico: Fomento de Nutrición y Salud: OGALI; 2014.
13. Juárez Martínez L. Alimentación saludable [Internet]. 2020 [cited 2020 Sep 7]. Available from: https://www.epsnutricion.com.mx/dctos/alimentacion_saludable.pdf

[^0]:    ${ }^{1}$ This is the age cut-off point used in the National Health and Nutrition Survey in Mexico (Romero-Martínez M, ShamahLevy T, Vielma-Orozco E, Heredia-Hernández O, Mojica-Cuevas J, Cuevas-Nasu L, et al. Encuesta Nacional de Salud y Nutrición (Ensanut 2018): metodología y perspectivas. Salud Publica Mex. 2019; 61:917-23).
    ${ }^{2}$ A reference to the size of these portions can be found in pages 9-11.

