



Dairy & Metabolic syndrome

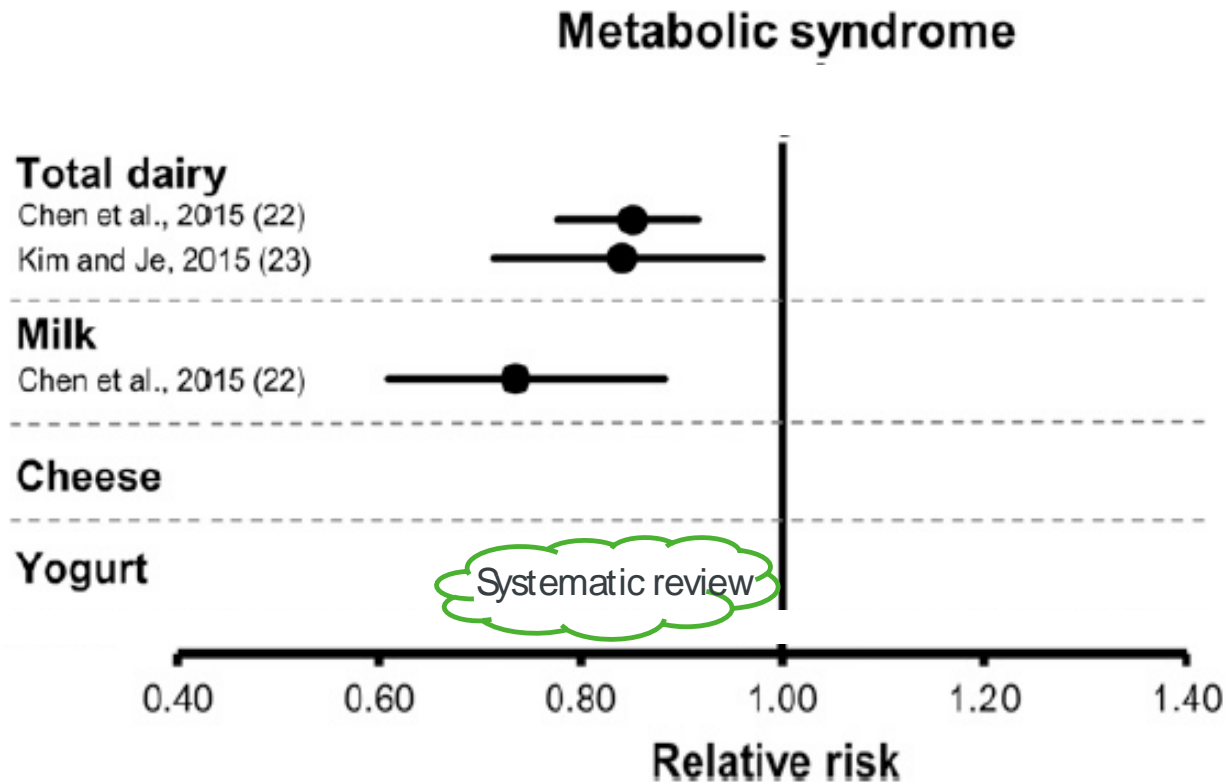
-The view of an industrial scientist

Lea Brader, Nutrition Scientist, PhD



Outline of meta-analyses

Dairy lowers risk of Metabolic Syndrome



Moderate-quality evidence*

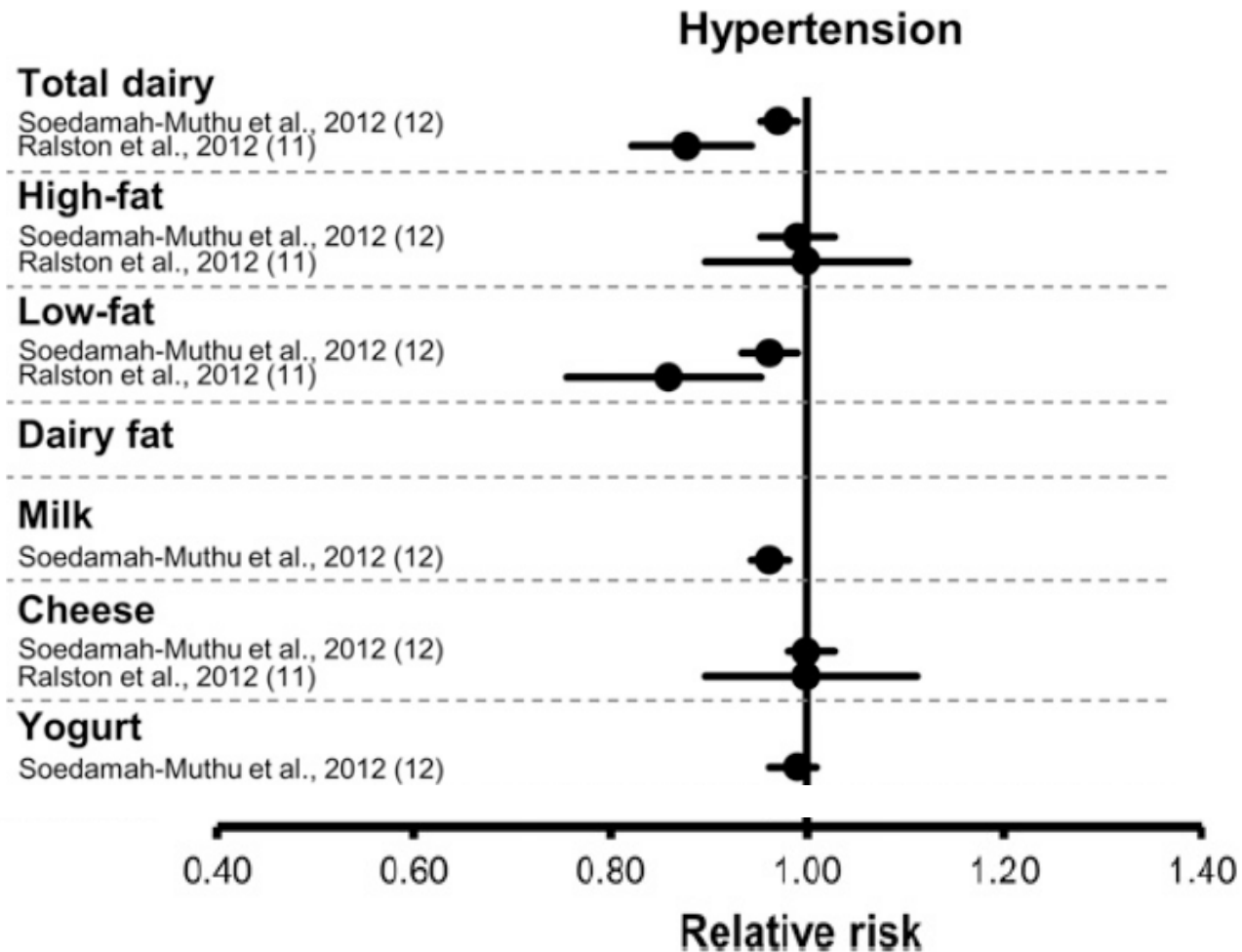
Moderate-quality evidence*

*defines a situation in which “we are moderately confident in the effect estimate”



Outline of meta-analyses

Dairy lowers risk of Hypertension

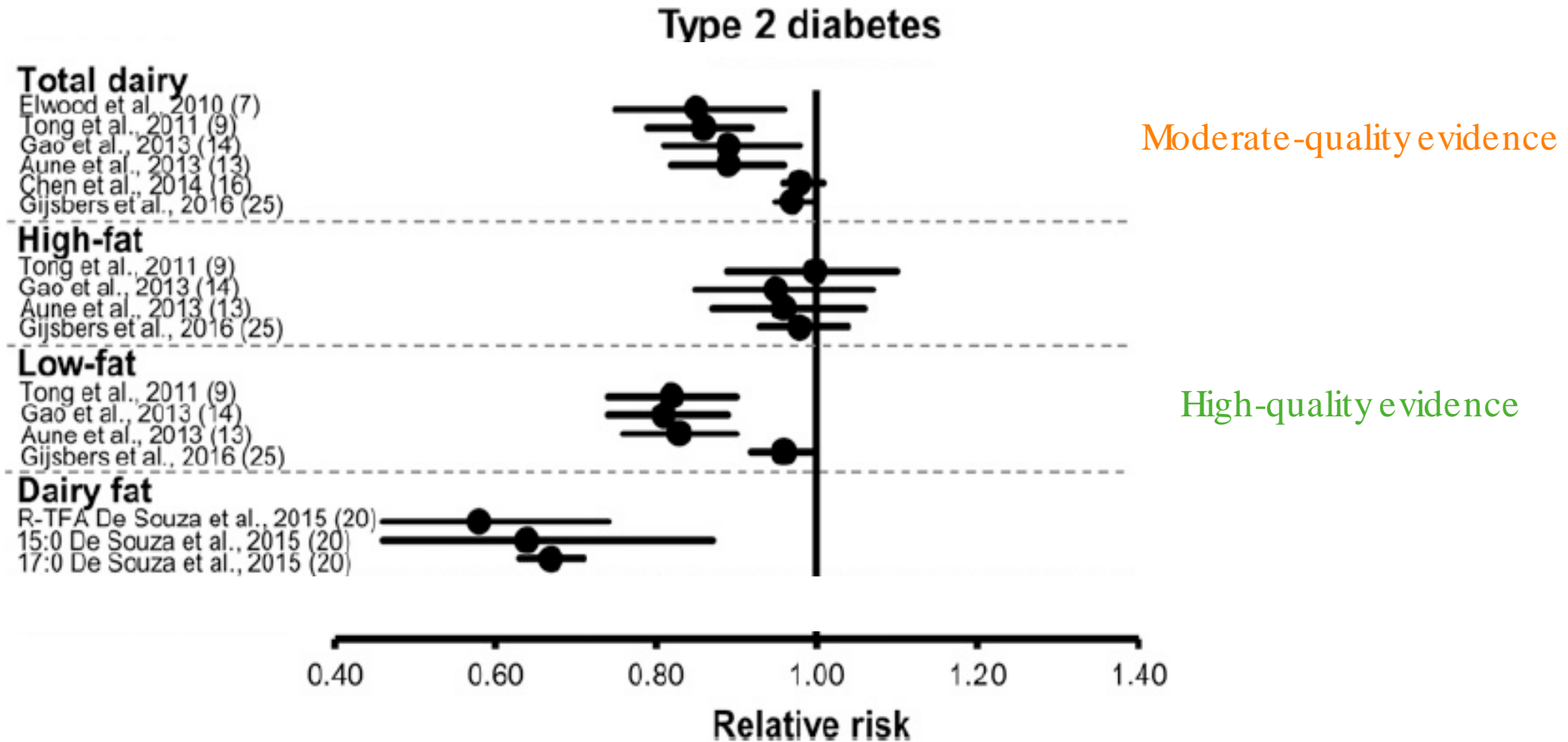


*defines a situation in which “we are very confident that the true effect lies close to that of the estimate of the effect.”



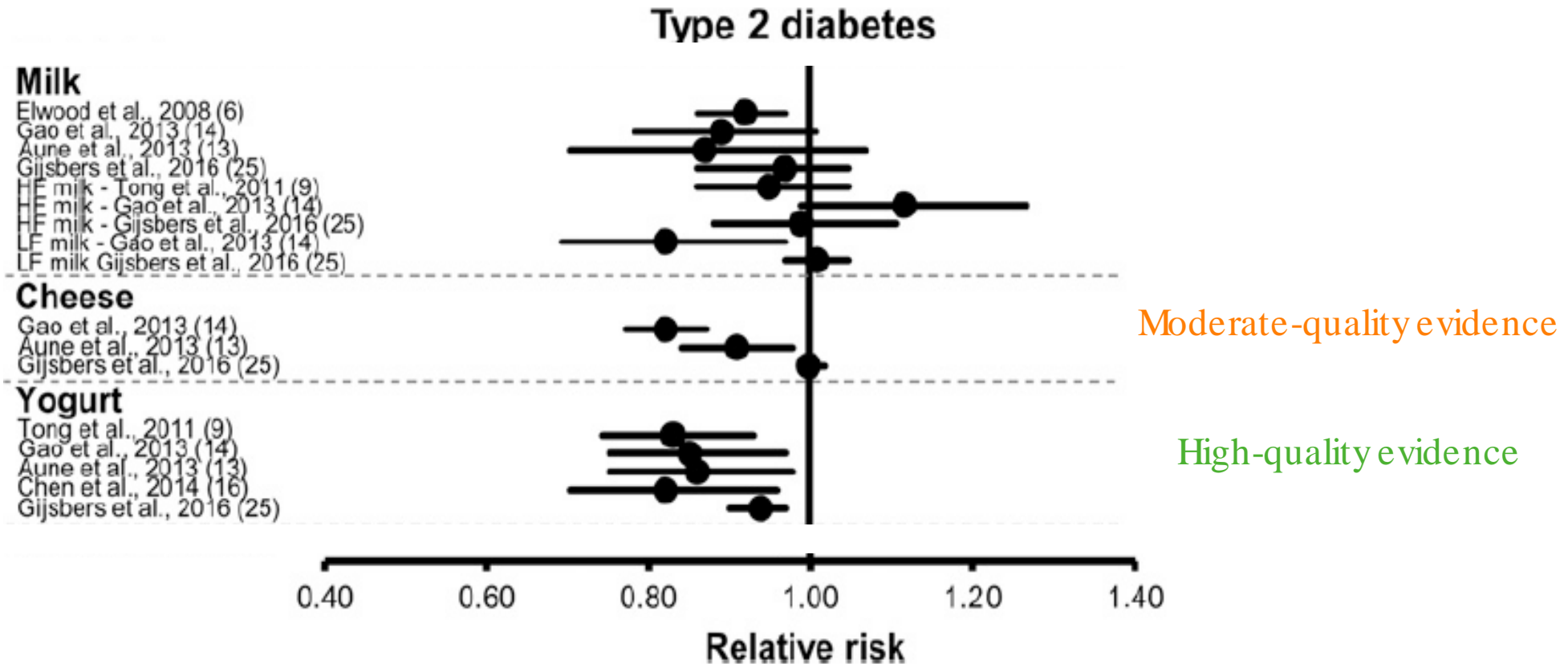
Outline of meta-analyses

Dairy lowers risk of Type 2 diabetes



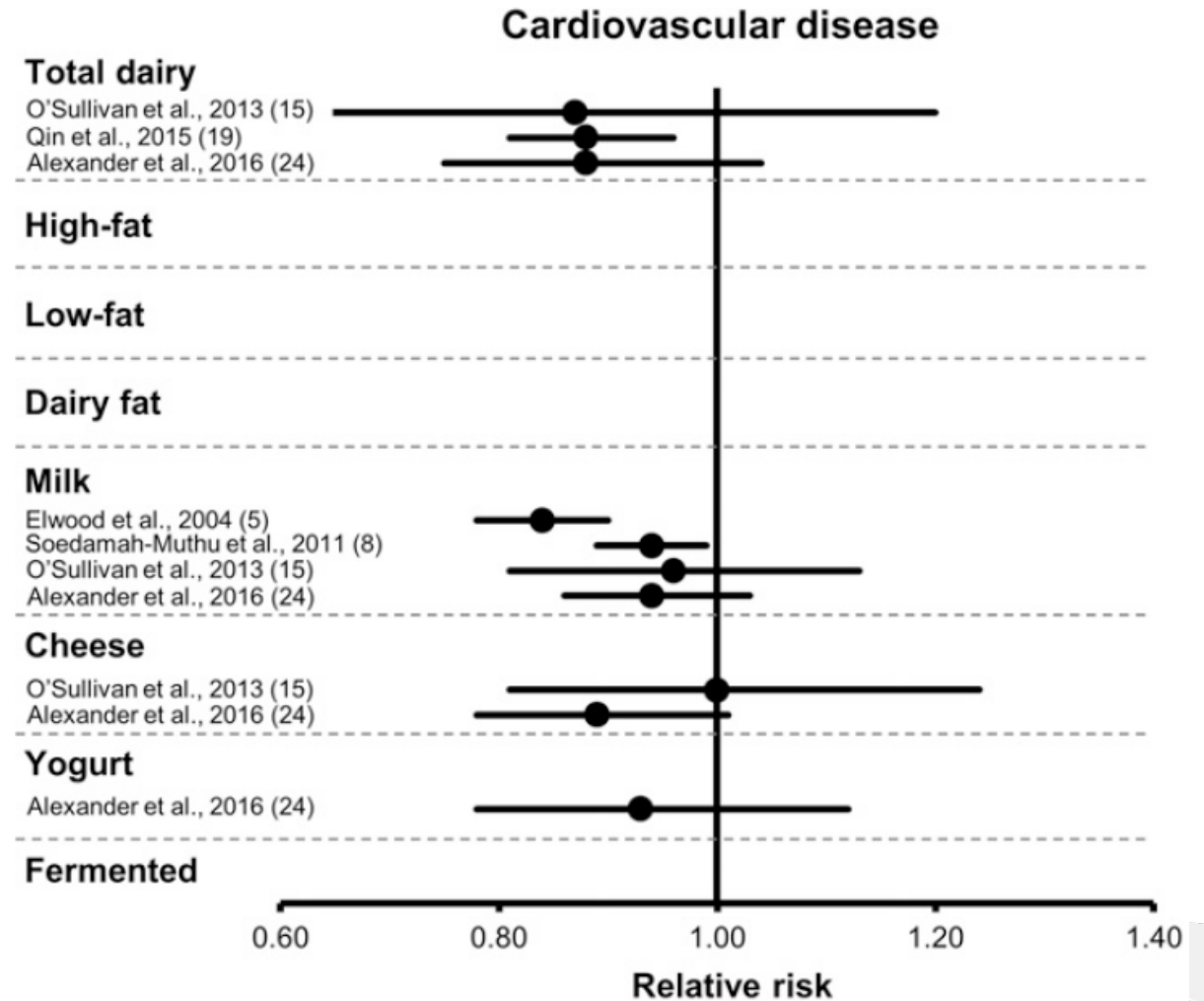
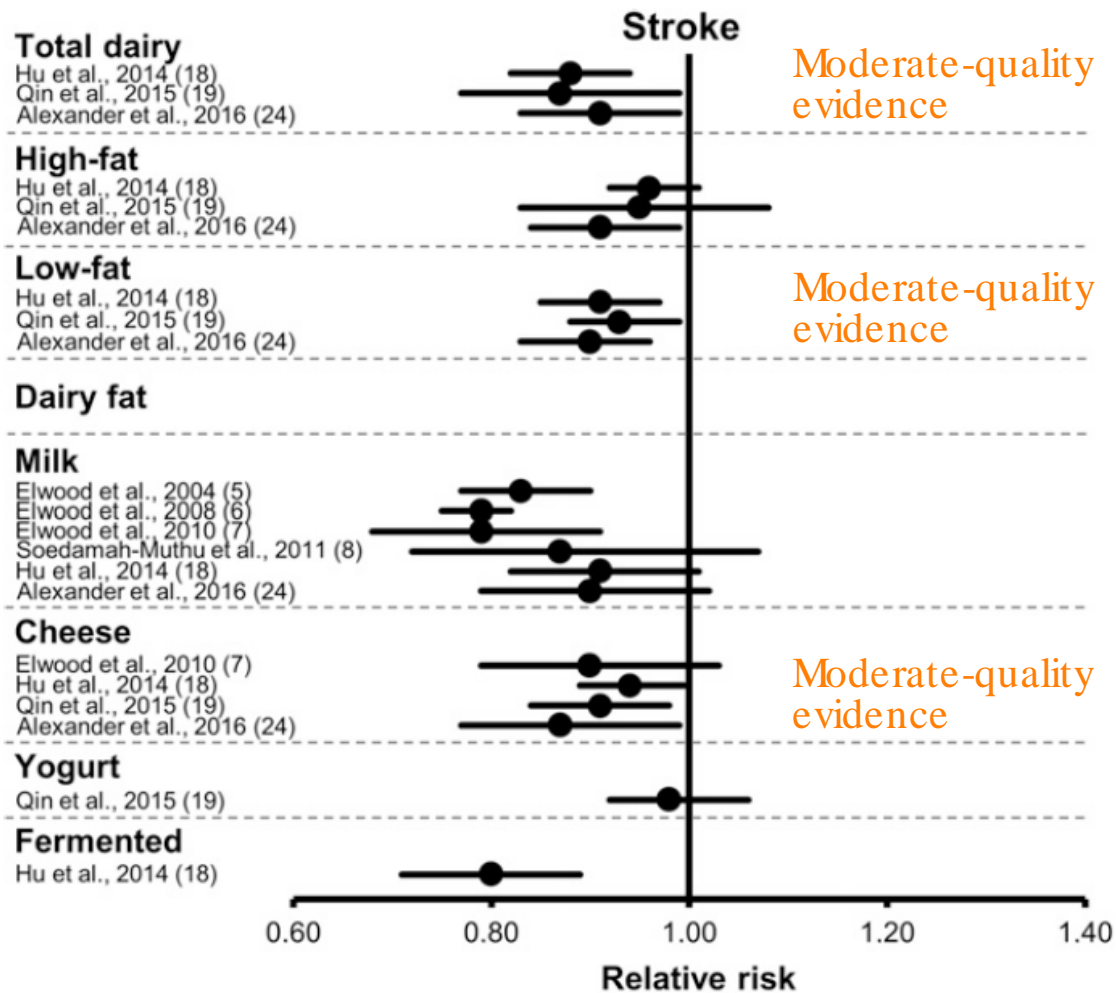
Outline of meta-analyses

Dairy lowers risk of Type 2 diabetes



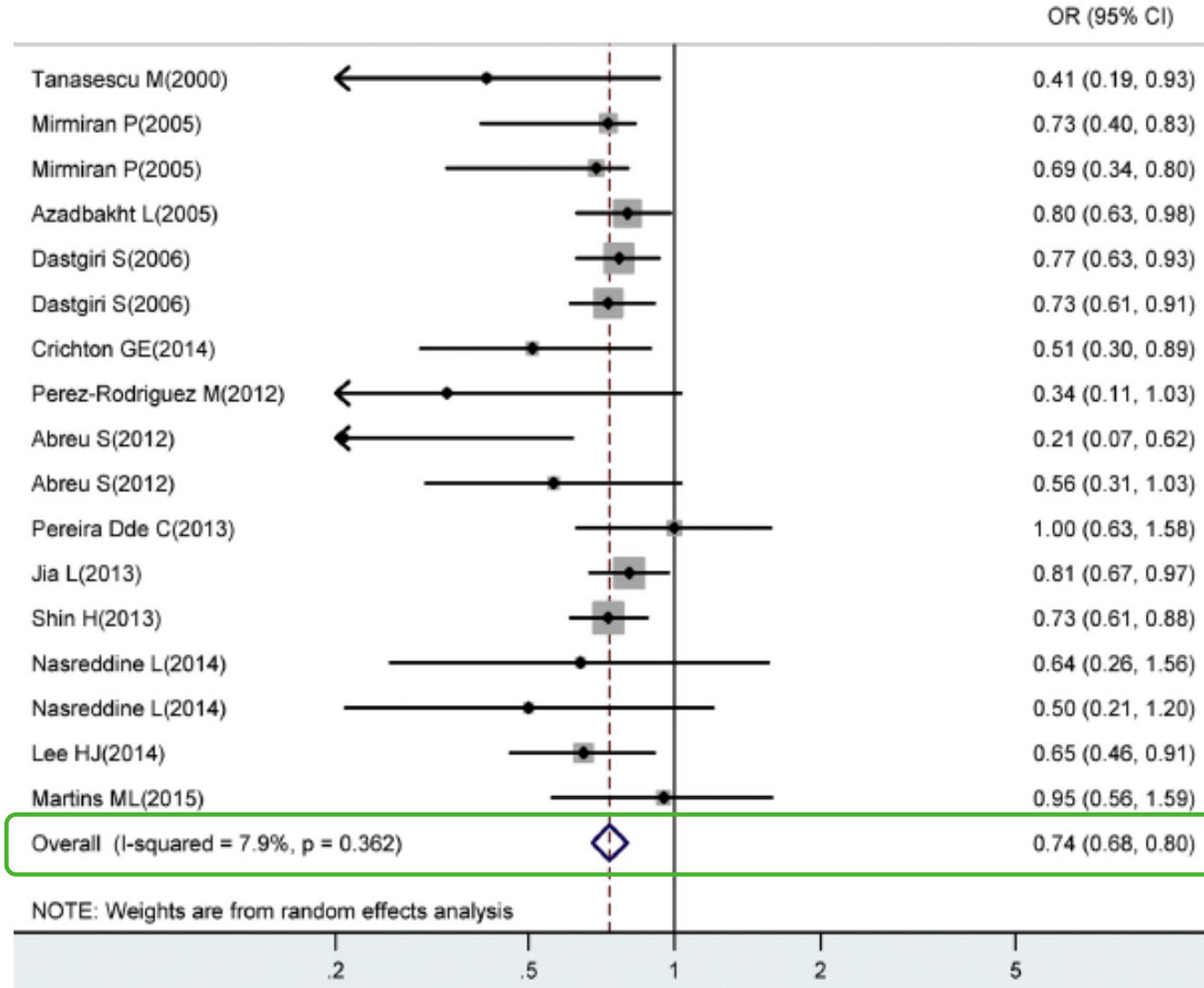
Outline of meta-analyses

Dairy lowers risk of stroke but not CVD



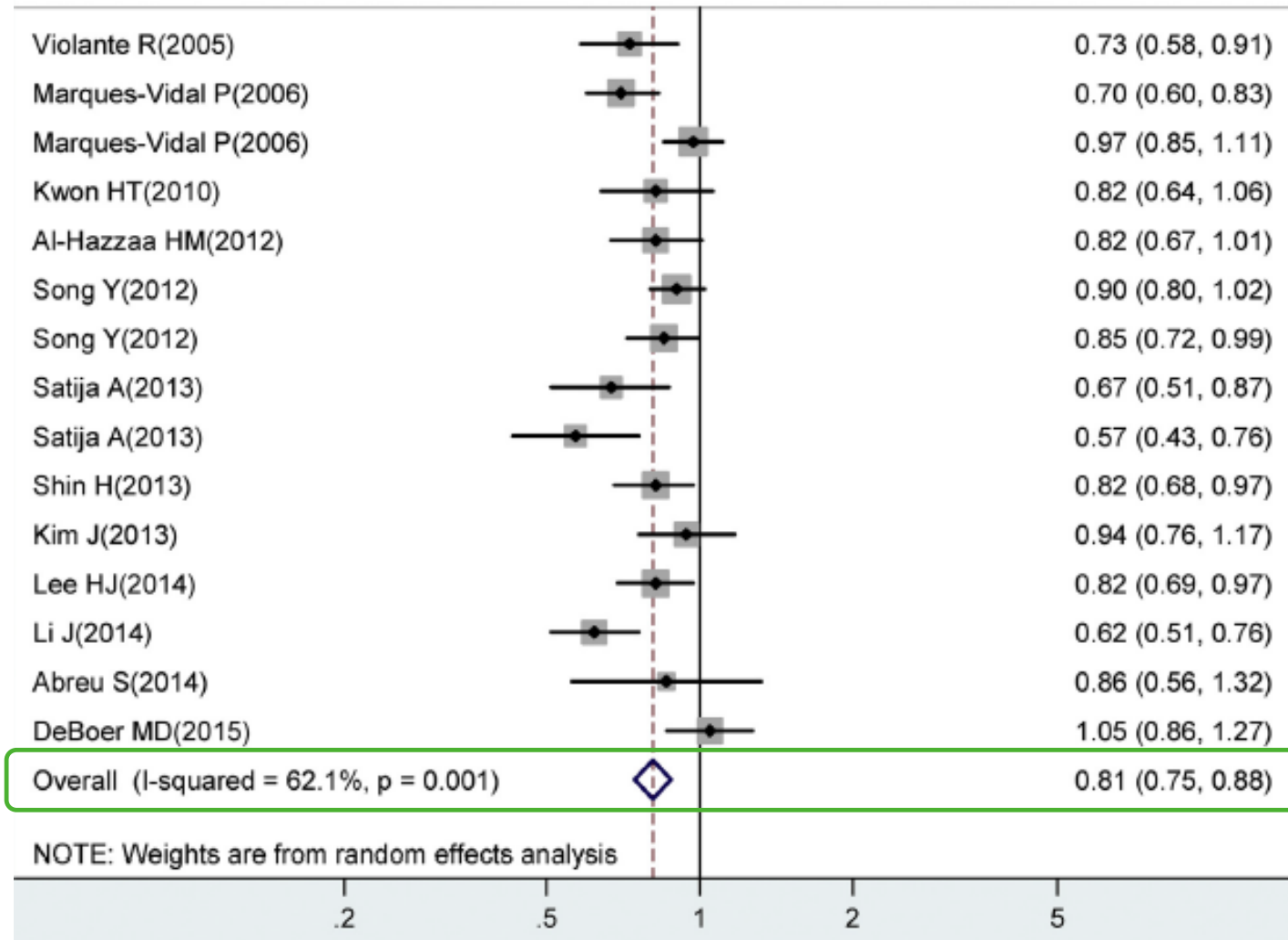
A recent meta-analysis

Dairy lowers risk of Obesity




A recent meta-analysis

Milk lowers risk of Obesity






Controlled intervention trials

Neutral to favourable effect – evidence is limited



Metabolic syndrome
Blood pressure
Insulin sensitivity
Dyslipidemia
Obesity



Lovegrove et al. Nutr Res Rev 2016 Dec;29(2):249-267
Thorning et al. Food Nutr Res 2016 Nov 22;60:32527
Drouin-Chartier et al. Adv Nutr 2016;7:1041-51
Dumas et al. Eur J Nutr 2016 Nov 2. [Epub ahead of print]



Research GAPS within dairy & MetS

RCTs on actual dairy foods are needed...



Research gaps

- Controlled research from intervention trials (RCT)
- Research on actual foods (not ingredients)
- Research on individual foods (yoghurt, cheese, milk)
- Research on amounts within recommendations

“The cardiometabolic effects of different dairy foods represent a major unanswered question of modern nutrition science. Most dietary guidelines are largely based on theoretical considerations about selected single nutrients (calcium, vitamin D, calories, saturated fat), rather than empirical evidence on health effects of the actual foods.”

Dariusz Mozaffarian. *Circulation*. 2016;133:187-225

Arla Foods for Health - facilitate dairy research through funding and expertise



We cannot communicate this knowledge on dairy

..since food companies are not allowed to communicate it (EFSA)



Cannot

Health claims on **whole foods**

Scientific consensus

Textbook knowledge



Can

Health claims based on single **nutrients** in dairy:

BLOOD PRESSURE

Potassium

OXIDATIVE STRESS

Vitamin B2

Health claims based on added non-dairy **ingredients**:

BLOOD SUGAR

Sweeteners, Iodine, Inulin...

BLOOD CHOLESTEROL

Plant sterols, β -glucan...

But we can play on nutrients associated with health...

Obesity
(Calories)

Fattig på fedt - rig på protein.

Obesity
(Satiety & muscle mass)

T2D
(Blood sugar)

✓ Ikke tilsat sukker

Cheasy

0,2% fedt

skyr

med pære & vanilje

højt protein-indhold!

✓ Ikke tilsat sukker

Cheasy

0,3% fedt

skyr

med blåbær & solbær

højt protein-indhold!

Arla

500 g

Inneholder sødesol og et naturligt indhold af sukker fra mælk og frugt

Hypertension
(Salt)



..and have several products for at risk people



And be inspired by science when creating new products...



Protein



Grains



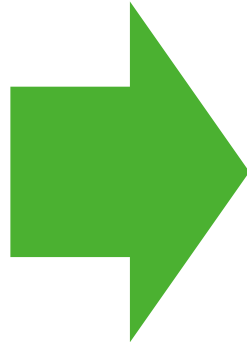
Fiber



Vegetables



Pulses



Viscosity

Energy density

Gut hormones

Gut transit time

etc.

Satiety

- for obesity prevention



And be true to science in our communication

You can claim health on not healthy products...

- Based on science, we know that dairy is good for health - recommended worldwide
- All dairy products can be part of a healthy diet BUT in quantities that balances culinary and nutritional needs
- Help people make healthy choices by increasing product transparency

Example **Vitamin A**



Amount providing 30% of recommended daily intake

✓ Health claim allowed

- Move the Arla Brand assortment in a healthier direction

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