

Report and Recommendations
from 2nd part of Teaching Nutrition to Tibetan Housemother's

in 4 TCV's (Lower TCV, TCV Bylakuppe, TCV Selakui, TCV Choglamsar)

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Summary 2018 (in addition to summary and suggestions from 2017!)

The teaching went again very well and was heartily received. The activity and participation of the housemothers was in all 4 TCV's again great, like in 2017. Thanks to the "slide-books" that we – thanks to the financial support of ICT Germany - could print at the end of the teaching in 2017 and that were provided by now, the housemothers could much better follow the lectures.

They were in all 4 TCV's very much actively following the lectures and participating vividly. I deeply have the impression that all of them are estimating my effort very much indeed. At the end, the last day, in all TCV until now, the housemothers prepared some "example plates" with good protein combination, colourful vegetable, eggs and lemon juice. I was and am still surprised and touched how quickly they are understanding (despite some language problems with the older housemothers) and translating the lessons into reality.



Example TCV Bylakupe



And whenever I left it was very touching and some mothers even cried (me almost too...)

The overall judgement of the nutrition quality in the TCV's has not changed, compared to 2017.

>>> In general, the nutrition is better compared to westernized countries as it contains more fibres, a relatively low fat intake and enough vegetables (not always) compared to the high fat and low fibres intake in western countries.

>>> On the other side, there is still not enough milk and eggs in the daily nutrition and the quantity of vegetables is quite often too low. Therefore, the intake of calcium and iron is still too low, especially for girls from puberty onwards. And – if the portion size of vegetable, “salad” and fruits (vitamins) is too small, the general intake of vitamins and minerals gets down

One important point is the **Snacking**: IN ALL TCV's, Chips & Co are on sale and heavily bought by the children. This time, I saw many more overweight children – both girls and boys and all age groups - compared to last year (exception TCV Choglamsar). I cannot judge, if this has to do with the different TCV's or if this is an overall trend with increasing Snacking the wrong products (Chips, chocolate, Soft Drinks!!!). I was told that it is also quite often caused by relatives that are bringing those things to their children!!!

In summary I can again conclude that the overall composition of the nutrition of the TCV's, as long as it is still following the traditional way of eating, is quite good, with enough carbohydrates (especially fibres) and good fat quality (exception TCV Bylakuppe), but on the low side concerning protein, possibly fat and fruits.

As **Dal Bhat** (with lentils, kidney beans, chickpeas or goa beans) is eaten every day, a solid base of good protein is guaranteed, as long as there are enough peas and beans in the Dal soup (and not mainly liquids). Of special importance seems to be a **good and intelligent combination of various proteins**, a point on which I put a lot of emphasis in discussions with the housemothers. They - similar to last year – showed off the last teaching days each time with some good practical examples of good examples of “intelligent protein combinations”.

Calcium intake is still too low, **some B-Vitamins like B2, Folic acid and B12** are on the lower side as well. In girls from puberty onwards, the supply of **Iron** is not sufficient enough. They should at least get an additional egg (yolk) to increase the iron intake somewhat. In terms of fat soluble vitamins, **Vit A could be on the lower** side as this is found only in eggs and milk (in vegetarian nutrition) and pre-vitamin A (beta-carotene) in (red) vegetables, but – the intake

must be high enough as the absorption rate is relatively low and only 30% converted into Vitamin A in the human body. (In India, there is overall still a high Vitamin A deficiency and around 500.000 children turning blind per year!)

With the exception of one TCV (Bylakuppe) the **soybean oil is the best source of n-3** (and n-6) fatty acids (in respect to the price). Mustard oil that is quite frequently used in India and also TCV's, is not allowed in Europe and USA because of the high (50%) erucic acid. However, it contains a high quantity of n-3-fatty acids and the toxicity of erucic acid has never been proven in humans. So, the recommendation would be, to use it, but only in lower quantities. The exclusively used **sunflower oil in Bylakuppe** only n-6 fatty acids, **must be exchanged against soybean oil** as in all other TCV's. As special plant oils are the only source of the essential n-3 fatty acids (> 90% of the human solid mass of brain is made of it!) the right oils **MUST** be used! Also, it should be kept in mind, that they should not be used for deep frying as they get oxidised and with this turning toxic!.

For deep frying (**ONLY** for this purpose!) solid fats like palm fat or coconut fat (without trans-fatty acid contents!) should be used. The **Indian Vanaspati oil should NOT be used** at all, because of the high (50%) content of trans-fatty acids in the fat part, which are a risk of coronary heart attacks in later life!

My suggestion for short term improvement is similar as in 2017:

- **Offer at least 1 egg per day** to the kids (and an additional egg for girls from 13 onwards during menstruation time)
- **More milk** – if by any means possible – for protein and calcium supply
- **Enough lemons (Vit C)** for an amelioration of calcium and iron absorption from vegetables.
- **Vegetable:**
It would be good, if more **varieties (and quantity) of vegetables** (guarantees better the various vitamin intakes) could be used, like capsicum (peppers) in various colours, broccoli (in season), more frequently green beans and higher quantities of **cooked** carrots and tomatoes (beta-carotene = pro-Vitamin A). **AS COLORFUL AS POSSIBLE, TRY ALWAYS TO HAVE 3 COLORS ON THE PLATE!**
- **Salad** (raw veg):
In salads, some more variety would be good and not only cucumbers and sometimes tomato and carrots.
- **As TSAMPA is THE TIBETAN SUPERFOOD, it should not only be served on the special Wednesday, but on a daily basis!** I was told that it gets more and more expensive. Therefore, farmers should be encouraged to grow barley and the higher price compared to wheat should be accepted for health reasons (see recommendation below).

Pesticides:

This seems a real concern in all TCV's as it was each time a topic. However, there is only ONE solution: Buy organic food (most probably too expensive) and/or plant it yourself.

Food Budget:

I know that it is difficult, but somehow the daily food budget of around 25 – 30 IRS should be somewhat increased for the benefit of the children! Perhaps an application to the ICT USA would be helpful (Richard Gere)?

Suggestions for 2019 continuation of Nutrition Education

1. **Reprint (with some changes) of the Slide-booklet**

For the teachings / seminars in 2019 we should reprint the slide-booklet with some changes (numbers on pages, some (in the teaching already done) corrections and additions, especially without page-errors done by the printer 2017).

Also, libraries, cooks, nurses and other medical staff would be interested

I shall take contact with ICT Germany, if they would take this over again.

2. **Suggestions for teachings in 2019**

- **1 week course in upper TCV for nurses, interested science teachers, health care workers, monks, etc (suggestions of participants)**
- **1 week course for ITI students in Selakui (their suggestion, director Tashi)**
- **1 weekend seminar each for TCV students in Delhi and Bangalore (students were very much interested!!)**

3. **Book on “Nutrition for Tibetan Housemothers”**

In 2018/19 I plan to write a book on nutrition from the teachings in 2017/18 that could not only be used for housemothers, but also for libraries, nurses, medical doctors, students, monks, etc etc.

However, we would need a specialist in Tibetan Language for We could publish an a translation into Tibetan.

Special nutrients and evaluation of the daily food:

>>> [Please read the report of 2017!](#)

Other suggestions in Summary:

A) Information

- **Poster with intelligent protein combinations!**
- **FLYER for parents and relatives concerning junk food, snacks and obesity (Suggestion director in Bylakuppe)**

B) Nutrition:

- **ONLY soybean oil as normal oil (some mustard oil is no problem), deep frying(see special recommendation) (Canola would be perfect, but too expensive) . Oil should be kept in DARK GLAS BOTTLES AND NEVER IN UNCOVERED PLASTIC BOTTLES, as cool as possible**
- **MORE TSAMPA (daily at breakfast if possible, various combinations and offers)**
- **1 egg / day**
- **200 ml milk/day (.... DhasaCow's Concept!)**
- **Increase supply of lemons for increasing absorption of Calcium and Iron**
- **Increase portion size and variety of vegetables, don't overcook them (still with "bite")**
- **More ginger and garlic for tea and cooking (Gastric problems, anti microbial, anti inflammatory)**
- **Tumeric (curcuma) and Cumin are very healthy ingredients from Indian cooking (Gastric problems, anti microbial, anti inflammatory)**
- **Reduction of Chips and Soft Drink supply (shops) on the campus**

Summary of the 4 TCV's in 2018:

1. Lower TCV (Dharansala): 3 days only (too short)

As the lower TCV has a common kitchen and the housemother's don't cook themselves, it was thought and decided that 3 days of teaching are enough. However, as the cooks were participating in the teachings (and were VERY MUCH interested and active), 3 days seemed to short for the 10 lectures.

- 510 children

- 8 house mothers
- 5 cooks

Especially the cooks were very interested and active! One of the big questions was, how can one avoid pesticides in food? Answer: ONLY by using organic food (that ALL TCV's were interested in). However, the price is still too high (see recommendation above!)

Suggestion by participants: a poster with intelligent protein combinations!

If wanted, I could do this, including the correction of the "old" poster of 2016 on nutrition that contains some real mistakes.



2. TCV Chauotra:

Discussion with house mothers from 2017 course and afternoon with 150 kids

Housemothers

We had an afternoon session with the Amalas of last year. They reported that they are applying a lot of suggestions of last year like more variations of vegetables, "as colourful as possible", no stress when eating, slowly and long chewing, reduction of salt, short cooking of vegetables, Yakult in private life, Tsampa preparations with other than just butter tea, lemon juice on vegetables, checking of labels before buying food, use of Canola oil and olive oil in private life, recommendation of less Chips and Soft drinks for children in breaks, some ginger in tea for kids, more kitchen hygiene like separating chicken or eggs from other foods very carefully, and many other points as well. WOW and WONDERFUL!!!!

TCV Chauotra changed the menu plans somewhat after the teaching of last year!!! Kids get now twice a week some milk!!! Unfortunately, they cannot give more Tsampa because of costs (see summary above)



- **150 kids between 14 – 16: 2 hours**

We had an afternoon session with those kids on nutrition. They were very much interested and we discussed about many different nutrition points, including Snacking (Chips and Soft Drinks).

Calcium and cow's milk (and building the cow stable) were discussed as well.

3. TCV Bylakuppe:

- **22 housemothers (!)**
- **> 1000 children**

Like in all other TCV's the housemother's are very much interested in the course. As they have also grade 11 and 12, there are also kids with older ages.

Here, we had the discussion on the quality of fat used: Only sunflower oil is used (n-6 fatty acids mainly) and there is (without fish or algae consumption) no real supply for the essential n-3-fatty acids! Therefore, the oil used for daily cooking SHOULD be change to Soybean oil like in all other 7 TCV's.

Here, I saw the highest quantity of overweight children, both girls and boys and all ages!!!

During the summing-up discussion with the director of the TCV, we discussed the possibility to create a flyer for parents and relatives to inform them about junk food, snacking and obesity. I would be willing to prepare a suggestion, get it discussed with TCV experts and have it printed with the help of ICT Germany (hopefully).



4. TCV Selakui:

- 7 house mothers
- 30-40 ITI students

Here, the teaching was somewhat of difficult as I was asked to give the nutrition course twice: In the morning for the 7 housemothers and during the afternoon for around 30-50 ITI students. Both groups were more than interested, but I had to squeeze the content of 10 lectures with 2-3 hours into 2 x 5 lectures. (In addition I was very ill from an infection that I had caught in South India).

Otherwise, everything was perfect, I was impressed by the structure and organisation of the ITI and the engagement of all students.

The topic of the cow stable in Selakui is treated separately.

There seems to be a greater problem in Selakui as only the “cow problem”: They are lacking teachers in English and IT classes and seem to be very much under stress altogether, despite the wonderful setting and lot’s of space. The whole setting looks like wonderful Toskana in Italy!

With Tashi (director of ITI) it was discussed that they would love a special course in nutrition for their cooks and people in service in 2019



5. TCV Choglamsar (Ladakh):

- **Around 1600 children**
- **1 “Pala” and around 20 housemothers, with about 30 children each (+ hostels)**

For me, it was a real pleasure, to teach in TCV Ladakh. The principal, MR Lhundup Namgyal, gave a very good introduction and I was pleased and impressed that he even attended some lectures despite his tight time schedule! Every day we had lunch with him and I felt really well treated in Ladakh!

In addition, I got a **copy of the Standard Menu for Homes** that I shall analyse during this summer.

And – they were just planning a **special Activity Week “Tashi Delek Program”** for class 9th and 10th degree. During this week the kids should be getting an additional light evening meal. I was asked to critically look at the proposal, what I did, and I hope that this was finally a success!

It was phantastic for me to learn, that the TCV children in Ladakh are getting milk on a daily basis, even if it is only from skim milk powder. Still, this is very good and will add to their Calcium intake and protein supply. However, the quantity is still very small and, in the girls, hostel I calculated 200 ml per week. This is a quantity, we are recommending **PER DAY!**



Cleaning of dishes / tableware / vessels in the staff kitchen (just an example)

The cleaning of the vessels and tableware (dishes) is done without any detergent (to get the fat off) and only with hands under running water. They really should use some soap and some tissue or brushes to clean the things. Most probably the cleaning is done everywhere just with running water in a sink.... Perhaps, in terms of hygienic measures this should be looked at in all of the 8 TCV's.

I do know that the dishes are everywhere in India cleaned like this, just some running cold water and hands for cleaning. However, the TCV's should be an example for hygienic measures and – as there are so many children concerned – it is of utmost importance to keep some basic hygienic standards.

ANNEX I: Deworming

Deworming should be done at least once a year, better twice a year. And: It should ALWAYS be done together with the dogs, as – otherwise – there is a continuous re-infection between dogs and children if they are not treated together.

(If needed, I could add the circle of infection)

ANNEX II: List of TCV Super Foods

We have put together a list of «Tibetan «Super Foods» that are especially suited for various purposes in nutrition. They should be eaten frequently enough to guarantee a healthy growth and nutrition:

- **Tsampa:**
good protein, Ca, Mg, Iron, B-vitamins esp B1, Vit E, fibers, beta-glucan):
>>variations sweet (with milk & milk products, nuts & fruits, honey) or salty (with soy sauce and tofu, and and and....)
- **Eggs** (especially egg yolk): protein!, Vit B12!, all fat soluble Vitamins (ADEK), iron, zink, n-6 fatty acids
- **Milk & milk products:** protein and calcium (especially high in cheese) !!!!, Vit D
- **Lemon juice:** Vit C for iron and calcium absorption: use a little on ALL green vegetables, peas & beans like Dal and salat
- **Dal Bhat** (and other peas & beans): good protein (enough lentils!!!), fibers, iron, zinc
- **Onion, garlic, GINGER:** soluble fibers (prebiotics for microbiota), anti-oxidants (anti-rusting), anti-infectious, especially ginger for stomach and digestions problems!
(Ginger-honey-lemon-tea)
- **Brokkoli (Broccoli) (in season):** calcium (with lemon), B-vitamins esp. Folic acid, Vit K
- **Spinach:** iron (with lemon), zinc, B-vitamins
- **Potatoes:** good protein source, especially in combination with eggs and spinach!
Potato water agains heart burn (reflux)
- **Tofu:** protein (if only little meat)!, calcium
- **Mushrooms:** good source of protein, iron and zink (with lemon juice)
- **Cumin (seeds):** digestive problems, flatulences (winds)
- **Nuts:** protein, n-3 and n-6 fatty acids, Vitamin E, fibers
- **Apples:**
- **Banana:** 3% fibers, calcium, zink, Vit. C, good for diarrho
- **Berries** (e.g. strawberries): anti-oxidants (anti-rusting)
- **Avocado:** Vit. ADEK, Calcium, n-6 fatty acids