

FOOD SAFETY PITFALLS

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Dr SUBBARAO M. GAVARAVARAPU

The United Nations General Assembly in December 2018 resolved to celebrate June 7, 2019 as the first ever World Food Safety day. Given that food safety is the key to achieving Sustainable Development Goals (SDGs), the United Nations through World Health Organisation (WHO) and Food and Agriculture Organisation (FAO) intends to promote food safety as an important measure in national development. The theme for this year's celebrations is "Food Safety: Everyone's business". When it comes to food safety we tend to see it as a manufacturers' credence or regulator's duty to ensure everyone gets safe food. It is important to realise that food safety is determined not only by how food is produced and delivered, but also by issues on the "demand side" — how consumers acquire, cook, store, and consume foods.

WHY A NEW PERSPECTIVE?

Most cases of food-borne illnesses are preventable if food protection principles are followed right from production to distribution. However, this does not fully address consumers' behaviours that could also introduce risks.

For instance, the WHO campaign — Five keys for safer food — that is extensively used for spreading hygiene messages among food manufacturers and handlers throughout the world, promotes personal hygiene, adequate cooking, avoiding cross contamination, keeping foods at safe temperatures and avoiding foods from unsafe sources. Such campaigns may, however, result in limited protection unless food safety is also understood and promoted at the household level. Cultural, behavioural and contextual forces shape specific practices along the continuum — from food purchase to preparation and consumption to



storage of leftovers for subsequent consumption.

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FOOD LAWS AND REGULATION - SHOULD WE THINK BEYOND?

The Food Safety Standards Authority of India (FSSAI) has been spearheading efforts to tighten domestic food laws. While the regulatory and administrative framework is critically important, we also require effective interventions focused on practices at point of consumption or even in home kitchens. Food-borne illnesses continue to pose public health challenge in India, but most of them go unrecorded. Such routine food-borne illnesses may relate to a host of practices at individual and household levels — how food is procured (what quantity/quality and from whom), stored (with/without refrigerator), prepared and consumed.

INDIVIDUAL AND SOCIAL DETERMINANTS — DO THEY HOLD THE KEY?

Unlike in many western countries, in Indian homes, semi-processed primary agricultural produce and raw materials are procured from the market before they are further processed and made suitable for cooking at home. In many rural and economically deprived homes, these are often

bought in small amounts, usually from local vendors and not in packed forms. When food is sold loose, adulteration is a major food safety concern. Adulteration may be intentional or unintentional (a result of incidental contamination). In both forms, the quality or the nature of the food is altered and could even become harmful. All of us have encountered food adulteration at some point in our lives. However, this problem is so normalised that we do not consider it to be a health hazard. And lack of awareness of existing food quality control regulations, has further accentuated the problems. Thus, there is a need to raise awareness about food safety issues to empower individuals to hold regulators accountable for enforcing rules against adulteration. But adulteration is only one aspect of food safety.

Hand washing, a behaviour closely linked with food safety, is routine in India, and it is often customary to wash hands in many cultures before handling food.

Studies at National Institute of Nutrition (NIN) show that a large proportion (90 per cent) of household food preparers wash hands before cooking, handling or eating food. Other activities that involve exposure to dirt, like mopping or dusting and handling cattle, are also usually followed by hand washing.

However, normative hand washing does not guarantee that foods are not contaminated, as a great deal of hand washing is largely symbolic and done without using soap. Our studies show that approximately 75 per cent of indi-

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viduals wash hands only with water and often do not use soap. Some research studies say that soap can reduce the risk of diarrhoeal diseases by 42-47 per cent. The customary practice of hand washing can be strengthened by encouraging routine and universal use of soap. Availability of safe drinking water is an important factor that is essentially beyond the control of the common consumer, but affects food safety. Many households in India do not have access to piped water. For many episodes of diarrhoeal diseases among adults and even deaths among children below five years of age, lack of protected water is an important reason apart from other factors such as sanitation and environmental conditions. The emphasis on clean surroundings and personal hygiene has clearly gained traction with initiatives under Swachh Bharat Movement and these efforts and reiterative messaging should go on.

CULTURAL SENSITIVITY - WHY IT IS THE NEED OF THE HOUR?

Inadequate cooking, cross contamination and storage temperatures are also important food safety risks. Studies show that foods cooked thoroughly, not stored for too long or thoroughly reheated are safe for consumption. NIN's studies in the past have revealed that as many as 80 per cent of households in India prefer to cook food twice a day, and more than half prefer to serve/consume food hot. It is also typical to reheat leftover foods before con-

sumption, but such reheating is not thorough enough to ensure safety. An area of potential intervention is education regarding the importance of thorough reheating.

In many Indian homes, the domestic hearth is an area of purity and sanctity. However, with about 30 per cent of Indians living in poverty, most homes do not have a separate designated kitchen, such that living, cooking and eating occur in a common place or a verandah (corridor).

Studies also clearly indicate that in situations where cooking fuel is difficult to use, households may, in a bid to save energy, prepare large quantities of food in advance and then store it until needed and may not thoroughly reheat before consumption. Many households who used to cook using solid fuels like firewood, coal or cow dung cakes, which release smoke leading to lacrimation and nasal discharge while cooking posing a threat to food safety are now migrating to safe cooking fuels due to government's Ujjwala Yojana and other schemes. This is a welcome measure.

WHY EVERYONE'S BUSINESS?

Many challenges faced by countries like ours in addressing food safety concerns are multi-dimensional. Low consumer awareness and perceptions of despair could be important hindrances for ensuring safety of food at the individual and household levels. For motivating self-directed changes in individual or household level practices, people need to be given not only the scientific rationale to alter established practices but also the means and resources to do so. Stricter regulation, compliance with global standards of manufacturing, distribution and competitiveness, are necessary, but not sufficient to address the food risks. Unless systemic changes are brought about and enabling environments are created, the perceptions of helplessness may cause consumers to think that food safety measures are meant for others rather than themselves. We have to realise Food Safety indeed is everyone's business as this year's theme says.

(The author is a scientist with ICMR-National Institute of Nutrition, Hyderabad. This article is based on his earlier scientific publications which argue for culture and context specific approaches for food safety)