

Pesticide laws ignore kids

By PHILIP J. LANDRIGAN

Any parent whose child refuses to eat anything other than macaroni and cheese and juice knows that infants and children can have diets much different than those of adults. But the current federal system for regulating pesticides does not take these differences into account. As a result, concern has arisen that at least some infants and children in this country may be ingesting unsafe amounts of pesticides in their diets.

By applying almost a billion pounds of pesticides annually to their crops, U.S. farmers have helped increase the quantity of fresh fruits and vegetables in the American diet. But traces of pesticides remain on many of the foods we eat, and pesticides have the potential to cause cancer, nervous system damage, and other health problems.

The federal government regulates the use of pesticides to reduce the threat to human health. But, the federal government currently takes a one-size-fits-all approach to pesticide regulation. It largely overlooks the fact that diets can change rapidly as a child grows. It does not take into account that children eat different things depending on their ethnic and geographic backgrounds. And, it ignores the fact that, because children are still growing and developing, their bodies can react differently to

foreign substances.

I recently chaired a National Research Council committee that urged the federal government to take these differences into account. We did not conclude that parents should change their children's diets to avoid certain foods. On the contrary, fresh fruits and vegetables are an important source of nutrients that can prevent later health problems. But, we encouraged the federal government to consider infants and children, explicitly, in regulating pesticides and to give our youngest citizens all of the protection they need against these chemicals.

Most importantly, the government should change the way it regulates pesticides. The current system balances the benefits of pesticide use against the risks of pesticide residues in foods. This approach does not always provide a sufficient degree of protection.

The system should, therefore, be revamped so that protection of health becomes, in all instances, the paramount goal of pesticide regulation. Regulations need to incorporate better information about exposure and the toxic effects of pesticides, along with continued consideration of agricultural requirements.

To achieve this end, the federal government needs to collect better statistics about what different age groups eat. Current food consumption surveys group people into broad age categories. But, a one-year-old has a different diet than a four-year-old, and we need to learn about those differences.

Better data are also needed on the amounts of pesticides left on foods when they are sold. Available mea-

surements are of variable quality and often are not comparable. These measurements need to be standardized and computerized. They also should account for the fact that foods may contain more than one pesticide at a time. Children are exposed to pesticides from non-dietary sources, such as air, soil, lawns, pets and indoor surfaces, and these exposures need to be considered.

Finally, toxicity testing procedures need to be developed that specifically evaluate the vulnerability of infants and children. Most animal testing now uses mature animals; this testing should be extended to include young animals. Particularly important are tests for toxicity to the developing immune, nervous and reproductive systems.

Using this information, the federal government could develop a new method of risk assessment. Current risk assessments use a single number to represent the average exposure of the entire population to pesticides. The new method would consider the kinds and quantities of foods actually eaten by infants and children and the pesticide residues measured on those foods. This approach would give regulators a much better idea of how many children might receive exposures above the level thought to be safe. This information could then be used in setting tolerances — the amount of pesticides legally allowed on or in foods when they leave the farm.

A fundamental tenet of pediatric medicine is that children are not just "little adults." The federal government should quit treating them that way, to ensure that the food they are eating is safe.

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