

LYDIA J. ROBERTS, Ph. D.
*Visiting Professor of Home Economics
College of Education, University of
Puerto Rico.*

ROSA LUISA STÉFANI, M. S.
*Associate Professor of Home Economics
College of Education, University of
Puerto Rico.*

BASIC NEEDS OF PUERTO RICAN FAMILIES¹

More Adequate Incomes

The most basic need of Puerto Rican families is that some means be found to provide more adequate incomes for the families that are now eking out a precarious existence at plainly inadequate levels.

—Three-fourths (74.2%) of all Puerto Rican families have an—

¹ This is a summary of a study whose findings were published in book form under the title of *Patterns of Living in Puerto Rican Families*. The study was made in 1946 and the authors are conscious of the fact that many improvements have been made since then. More people are employed, and incomes have risen. The authors consider that the general picture still prevails, but with smaller numbers in the most unfavorable conditions; that is, the kind of problem still exists, but to a lesser extent.

nual incomes below \$1,000. Nearly two-thirds (62%) have less than \$750; and 43.6 per cent have less than \$500. Best off are 17.8 per cent of the families whose incomes range between \$1,000 and \$1,999 and 8 per cent that have \$2,000 or more.

—Rural families are even less well off; 85.4 per cent have less than \$1,000, 73.3 per cent have less than \$750, and 52.9 per cent have less than \$500. Only 11.8 per cent have annual incomes between \$1,000 and \$1,999 and 2.8 per cent have \$2,000 and over.

This study reveals that in practically every aspect of family life conditions markedly improve at each rise in the income level. Raising the income of under-privileged families would thus automatically raise the whole standard of living in the Island. Though a family income of \$1,800 to \$2,000 would be required to provide a fair standard of living, a minimum of \$800 to \$1,000 would effect a marked improvement. This might, therefore, well be a temporary goal toward which to strive. Even if this cannot be soon attained in money income, it is felt that a number of things can be done to help make the *real* incomes approach or equal these amounts.

Better Housing

The problem of how to provide better housing for the masses looms large among Puerto Rico's most pressing needs. Although there are many comfortable and attractive homes in the upper income groups, these are relatively few in comparison with the total number of families. Indeed, the dwellings inhabited by a large proportion of families are mere make-shift affairs, meagerly equipped, with few of the essential conveniences, and totally inadequate for even the decencies of living. The problems differ in the two regions.

In the urban zone over-crowding is a major problem. Houses are built too close to the street and to other houses.

—Two-thirds (65.5%) of all urban houses are right on the street or less than 2 yards from it.

--Nearly three-fourths (70.9%) are less than 2 yards from other houses on one or more sides, and 16.9 per cent are only 3 to 4 yards from another house.

—Nearly half (46.8%) of the houses, moreover, are less than 2 yards both from the street and from other houses.

Urban houses are also crowded in respect to size and occupancy.

—Over half (55.6%) of urban families live in houses with floor areas equivalent to only 18 x 20 feet, or less; over one-third (38.4%) in houses equal to 15 x 15 feet or smaller.

—Nearly one-third (31.9%) of urban families live in houses with only 3 rooms or less, and 45.7 per cent have only 4 rooms including the kitchen.

—Nearly half (45.7%) of urban families live under "crowded" conditions, i.e. with more persons than total rooms in the house; 18.1 per cent, moreover, live "very crowded" with 1.5 to 2 times as many persons as total rooms.

When all these things are taken together—the closeness of houses to the street and to other houses, their small size, and few rooms in relation to the size of the families—it is apparent that three of the essentials of adequate housing—privacy, freedom from noise and confusion, and space for children to play—are lacking for the large majority of urban families.

In the rural zone, crowding in the sense of living too close to neighbors is not a major problem, though even rural families tend to live fairly close together.

—One-third (33.3% of rural families have a neighbor only 10 yards or less away, and more than another third (37.4%) have one within 100 yards. Thus over two-thirds (70.7%) of rural families live fairly close to one or more neighbors. Farther removed are 16.8 per cent that live $\frac{1}{4}$ kilometer or more from the closest neighbor.

Remoteness from main roads and from services constitutes the real problem of rural families.

—40.2 per cent of rural families live one kilometer or more from a main road and 22.0 per cent are more than 2 kilometers from one. These two kilometers, moreover, often lead to a steep mountain side, and the main road, when reached, may still be many more kilometers from the trading center.

—Two-thirds of the families must go 5 kilometers or more to reach the nearest doctor or health unit.

—Children in 44.2 per cent of the homes must walk 2 kilometers or more to the nearest school, and 13.8 per cent must go 5 kilometers or over.

—40.8 per cent of rural families live one kilometer or more from the nearest store and 25.0 per cent 2 or more kilometers from one. Indeed, 9.7 per cent of the families must travel 5 kilometers or more to reach the nearest trading center.

—Since these distances, moreover, must commonly be traveled on foot, the hardships involved are greater than indicated by the mere distances involved.

Though crowding of houses together is not a major problem as it is in urban areas, *crowding of too many people into too small houses* is even more serious. Rural families average 5.9 members, and more than half of them (53.3%) have 6 or more persons in the household, yet:

—More than three-fourths (80.2%) of rural families live in dwellings whose total floor area is equivalent to only about 18 x 20 feet or smaller, and nearly two-thirds (61.4%) in ones about 15 x 15 feet or smaller, and

—Over half (57.7%) of the houses, moreover, consist of only 3 rooms or less, including the kitchen, which as will be shown later is in most cases not a habitable room.

—By the standard of what constitutes maximum occupancy for decent living, 82.7 per cent of rural families live under “crowded” conditions—more persons than total number of rooms—and 72.7 per cent are “very crowded” with 1.5 to 2 times as many persons as rooms.

—Fortunately, most rural families (77.7%) have a *batey* that can extend the day-time living quarters.

In both regions houses are lacking in essential features.

—94.6 per cent of rural, 87.4 per cent of urban houses have no closets.

—89.4 and 50.8 per cent respectively have no bathroom.

—76.7 and 50.6 per cent have no porch. 65.7 and 46.7 per cent have only one bedroom or none at all.

—7.2 and 16.5 per cent do not have a kitchen; 82.7 and 22.3 per cent of families in the respective regions do not have electric lights; they use kerosene or candles or have no lighting facilities.

—The kitchen in both regions is the proorest room in the house.

—In 48.1 per cent of rural, and 30.3 per cent of urban homes, the kitchen is a rude lean-to or shed apart from the house, or there is no kitchen.

—76.5 per cent of rural and 45.0 per cent of urban kitchens have rough uneven walls, or none; 70.7 and 29.3 per cent respectively have rough uneven floors or earth only.

The outward appearance of houses and surroundings leaves much to be desired.

—81 per cent of rural, and 42.6 per cent of urban houses are totally devoid of paint.

—In 82.5 per cent of rural, and 43.1 per cent of urban houses the walls of the *sala*—the best room in the house—are unpainted or otherwise unfinished or papered with newspapers.

—56.6 per cent rural, and 75.2 per cent of urban houses have no vines or shrubs, and even more of them have no flowers, ornamental trees or other plantings to lend a decorative aspect.

—As judged by the agents, the surroundings of about two-thirds of the homes (70.3% rural, 61.4% urban) are bare and unattractive or even sordid and ugly in appearance. Only 8.8 per cent of rural and 7.7 percent of urban houses are as attractive as the majority of Puerto Rican homes could be if the families desired it, and were given help in carrying out their endeavors.

The picture of housing as here presented is a sorry one for a large proportion of families. Crowded in make-shift houses too small for the size of the families and with too few rooms to afford privacy for the members; with few or none of the conveniences of modern housing, in surroundings at their best bare and uninviting, at their worst ugly and unkempt; such conditions are not conducive to wholesome living, to the atmosphere for the rearing of children, or the development of self-respecting, decent and morally responsible citizens. Other unfavorable aspects of housing which exist in relation to water supply, bathing facilities, disposal of waste and other sanitary matters are summarized in later sections.

It is not to be forgotten, of course, that there is a smaller segment of families that have fair or adequate housing in these respects. How these families fare will be pointed out later. The conditions here shown, however, for the large group of less privileged families are indications of what are some of Puerto Rico's urgent housing problems.

Better Facilities for Living Within the Home

Equal in importance to the houses itself are the furnishings and facilities it provides for carrying on normal family life. These are meager or lacking in a large proportion of homes.

The kitchen is not only often a poor affair, but it is also meagerly equipped for the service it should render the family.

—79.3 percent of rural, 34.9 per cent of urban families have only a *fogón* or an *anafre* for cooking; only 6.4 and 22.3 per cent respectively have a kerosene stove and 0.8 and 7.5 per cent a gas or electric stove. The last are almost all in the "\$2,000 and over" bracket. At this level 29.4 per cent of rural, 42.4 per cent of urban families have either gas or electric stoves.

—46.6 per cent of rural, 26.2 per cent of urban families have only one cooking place, and 34.1 and 29.8 per cent respectively have but two. Hence 80.7 per cent of rural and 56.0 per cent of

urban families can have no more than 2 dishes cooking at one time and nearly half of rural (46.6%) and over one-fourth of urban (26.2%) families can cook but one dish at a time.

—72.9 and 56.8 per cent of families in the respective regions have less than 20 cooking dishes and utensils and 44.7 and 30.3 per cent respectively have less than 15. This includes not only every knife, fork, spoon and cooking vessel, but also tin cans, gourds, coffee bags and other improvised articles.

—The only articles owned by 90 per cent or more of the families are the iron kettle (*caldero*), coffee bag, kitchen knife, *kettle* (olla) and sauce pan. Additional ones owned by 75 per cent or more of the families are a mortar and pestle (*pilón y maceta*), spoon, strainer, and frying pan.

—97.5 per cent of rural, 88.5 per cent of urban kitchens have no ovens.

—82.7 and 50.0 per cent respectively have no sink, and 97.0 and 78.1 per cent have no refrigerator.

—42.1 per cent of rural, 29.1 per cent of urban kitchens have less than 5 square feet of working space for preparing meals, and

—46.9 and 32.0 per cent respectively have no storage space for utensils or food; they are kept on the *fogón* table, chairs or floor.

The limited number of cooking places and the meager array of cooking utensils limit sharply the type of cooking done, and the kind of meals the families will have. They will of necessity consist monotonously of one dish meals with little or no variety in preparation. The lack of refrigerators favors the use of non-perishable foods, and the unthrifty habit of "hand-to-mouth" buying; while the lack of sinks, working space and storage facilities make for inefficiency and untidy house-keeping.

Furniture for the rest of the house is even more meager.

—87.9 per cent of rural and 72.9 per cent of urban families have a total of less than 30 articles, and 53.8 and 32.7 per cent respec-

tively have less than 15. This includes not only chairs, tables, beds and other major items, but also benches, boxes, and all accessory and improvised articles as well.

—The only articles of furniture possessed by half or more of rural families are: a bed, table, *baúl*, bench, hammock and mirror. Half or more of urban families have the same items, with the exception of the hammock, and in addition an easy chair and a rocker.

—Other useful and luxury items are lacking in the largest proportion of families.

—80.2 per cent of rural and 68.6 per cent of urban families do not have a sewing machine.

—88.2 per cent of rural and 60.7 per cent of urban do not have a radio.

—65.3 per cent of rural and 49.3 per cent of urban families do not have a clock, and

—80 to 99 per cent of rural and 50 to 98 per cent of urban families lack all such items as easy chairs, sofas, buffets, dressers, wardrobes, and bookcases.

Conditions and facilities for sleeping are inadequate for many families.

—75.6 per cent of rural and 54.0 per cent of urban persons sleep with 3-4 or more in the same room, and 38.6 and 14.6 per cent respectively in rooms shared by 5 persons or more.

—56.7 per cent of rural and 25.4 per cent of urban persons sleep crowded, too many in the same bed, cot or hammock, or they sleep on the floor.

—33.4 per cent of rural and 6.6 per cent of urban persons sleep on a largely unpadded, unyielding surface, and 60.5 and 65.7 per cent respectively on a wire spring covered only with a thin pad (*colchoneta*). Only 6.1 per cent of rural and 27.7 per cent of urban persons have the luxury of a spring and mattress.

—Bedding, too, is commonly scanty and inadequate. 60.0 per cent of rural and 35.3 per cent of urban persons sleep without one or more of the three items desirable for comfort, namely, sheet, pillow and cover. Nearly one-fourth (22.6%), of rural and 4.1 per cent of urban persons have only one of these items or merely sacks or rags.

—64.0 per cent of rural and 20.3 per cent of urban persons sleep without the protection of mosquito nettings. Some of these, it is true, live in areas where they are not essential, but the fact that higher income families have them indicates that most others would doubtless have them if they could.

Taking all these aspects into consideration — the small space available for sleeping, the crowding of too many people into the same room and the same bed, the hard unpadded surfaces on which so large a proportion sleep, the lack of adequate bedding and above all the lack of privacy—the unwholesomeness of the sleeping conditions, especially of rural families, is all too apparent.

Facilities for eating commonly regarded as minimum essentials are conspicuously lacking in many homes.

—48.1 per cent of rural and 21.4 per cent of urban families do not eat on a table, but use shelves, boxes, benches, or eat on their laps on the floor.

—80.2 per cent of rural and 45.8 per cent of urban families do not have chairs for all members to sit to eat, and 35.9 and 15.8 per cent respectively do not have enough even with boxes and benches, but some or all members sit on the steps or the floor, or they stand to eat.

—76.8 per cent of rural and 46.7 per cent of urban families eat without benefit of table cover, even an oil cloth, and 97.7 per cent and 82.4 per cent respectively eat without the nicety of napkins.

—53.4 per cent of rural and 39.7 per cent of urban families do

not eat as a family group, but the members eat as they happen to come.

Facilities for bathing are absent from many homes.

—89.6 per cent of rural families have neither a shower or a standard bathtub, but use only improvised facilities or bathe in the river.

—Urban families are a little better off; 15.1 per cent have a standard bathtub and 45.9 per cent have a shower, but 39 per cent of urban families do not have either type of facility in the home.

A Safer, More Abundant and Accessible Water Supply

A safe, abundant and readily accessible water supply is one of the most basic needs of Puerto Rican families.

Urban districts, of the Island are mostly supplied with water from government aqueducts, and 97.2 per cent of urban families obtain their water from them. The remaining 2.8 per cent secure it from a river or surface well.

—55.3 per cent of urban families have water piped to the house, and 15.8 per cent have it in the patio, but 28.9 per cent of urban families carry water from some place outside the home. Most of these carry it only a short distance, but 11.8 per cent carry it $\frac{1}{4}$ kilometer or more.

—The supply of water even in urban areas is, however, not always adequate. After periods of low rainfall the pressure is too low to reach the higher sections and upper floors in apartment buildings, and the supply is also often shut off for certain hours of the day to conserve the supply. During these periods many additional families are compelled to carry water from a distance, and others to use water sparingly.

—The safety of water from government aqueducts varies

throughout the Island. For this reason, water used for drinking should be boiled, unless assured by the Health Department that the supply in a given locality is safe at all times. Yet:

—88.9 per cent of urban families do not regularly boil their water, and 73.5 per cent never boil it.

These needs of urban districts for a more abundant, dependable, and safe supply of water are recognized by the government agencies and plans are under way to correct the deficiencies.

The real problems of water supply are in the rural districts, and they involve both the safety of the water and hardships in obtaining it.

—40.7 per cent of rural families obtain water from a stream, ditch or canal, or from shallow surface wells; 22.7 per cent obtain it from aqueducts, and 36.6 per cent from a spring, deep well, or use rain water. The water from surface sources is definitely unsafe; most water from rural aqueducts is questionable, and many so-called deep wells are not such in reality. Hence the large majority of rural families are drinking water whose safety is questionable. Yet:

—97.8 per cent of rural families do not regularly boil their water, and 92 per cent never boil it.

Securing water also involves many difficulties or hardships.

—85.7 per cent of rural families carry water from some place away from home. Some (34.1%) go less than 100 yards for it, others (23.9%) between 100 yards and $\frac{1}{4}$ kilometer. But 42 per cent must go $\frac{1}{4}$ kilometer or more. The route they travel is not, moreover, an easy one.

—For 64.5 per cent of the families it is over rough, stony, muddy or swampy roads.

—For 66.6 per cent it is over hills or even mountain sides (24.3%), and

—For 38.1 per cent it involves difficulties or even dangers, leading through bushes, cactus or cattle enclosures, under barb wires, over slippery roads or even near precipices.

Even if but one trip a day were required, getting water under these conditions would be a hardship. But rural families average nearly 6 members and many of them contain 8 to 10, and the amount of water required is great even if used only for drinking, cooking and washing dishes, and that sparingly. Hence many trips a day are required to supply even these minimum needs. There is then no more pressing need for rural families than that of making available by some means a more accessible and safe supply of a water.

More Sanitary Disposal of Waste

More sanitary disposal of waste materials is one of Puerto Rico's most urgent health needs.

Food waste in rural districts is largely fed to farm animals, and in urban districts some is taken away by garbage collectors; nevertheless,

—32.6 per cent of rural and 13.0 per cent of urban families merely throw it out to become a breeding place for insects and rodents and an eyesore on the landscape.

—79.0 per cent of rural, and 19.4 per cent of urban families throw empty cans and bottles, and 65.5 and 15.1 per cent respectively throw waste papers and boxes into the yard or street or wherever it happens. Since these items could easily be burned or buried, the failure to do so reflects a lack of standards for outdoor house-keeping.

More important is the disposal of the human waste.

—69.9 per cent of rural, and 34.1 per cent of urban families are disposing of excreta in an unsanitary manner.

—42.9 per cent of rural and 29.1 per cent of urban families have unsafe, unsanitary latrines, and 27.0 per cent of rural and 5.0 per cent of urban families have no facilities at all. They deposit their excreta on the ground, in a stream or wherever happens to be convenient. As a result much of the land area and streams that drain from it are polluted.

More Adequate Provision for Prenatal and Infant Care

Adequate care of the mother during the prenatal period is a safeguard essential for the welfare of both the mother and baby, yet:

Nearly two-thirds (65.3%) of rural and over half (51.0%) of urban women that have had children, had no prenatal care in their last childbirth, and 74.1 and 57.3 per cent respectively had no care from a doctor or nurse.

—91 per cent of rural and 71.9 per cent of urban mothers had their babies at home, and

—88.6 and 65.1 per cent respectively were delivered by a midwife, or a person other than a doctor or nurse. Though a program for training and licensing midwives is underway, unlicensed ones still practice. Home delivery by unqualified persons thus makes the safety of childbirth questionable.

—Diets of prospective mothers are given little or no attention.

—84.7 per cent of rural and 73.4 per cent of urban mothers ate no differently than before, and only 8.5 and 13.2 per cent of mothers in the respective regions made additions of protective foods needed in pregnancy. In view of the generally poor usual diets of the families it is evident that the majority of mothers had diets that were not adequate for their own needs, much less so for the added needs of the baby.

—The postpartum examination, so essential for adequate maternal care was largely lacking.

—93.7 per cent of rural and 84.5 per cent of urban mothers did not have the postpartum examination six weeks after the birth of the baby, and 88.9 and 76.2 per cent of the mothers in the two regions had no examination at all after the babies were born.

—79.2 per cent of rural and 59.4 per cent of urban mothers had no advice from either a doctor or nurse on the general care of their infants, and

—69.2 per cent of rural and 43.5 per cent of urban babies were not seen by a doctor during the first year of life.

The greatest safe-guard for babies is that they are commonly breast fed.

—86.5 per cent of rural and 78.1 per cent of urban babies were breast-fed for three months or longer, and 93.8 and 86.9 per cent respectively had some breast feeding (one month or more). In this respect the rural babies and ones in low income families have the advantage of more breast feeding. Many babies, however, are fed too long on an exclusive milk diet.

—49.2 per cent of rural, and 39.1 per cent of urban babies had no food but milk for 9 months or longer, and 30.5 and 29.2 per cent respectively had only milk for a year or more.

—84.8 per cent of rural, and 59.3 per cent of urban babies had no fruit during the first year of life.

—95.0 and 81.7 per cent respectively had no eggs, and

—98 and 93.6 per cent had no vegetable.

Other items of care were also lacking for many babies.

—43.0 per cent of rural, and 20.1 per cent of urban babies had less than 40 diapers, the one essential item of clothing for Puerto Rican babies.

—40.5 per cent of rural and 29.5 per cent of urban babies have unwholesome sleeping conditions; they sleep with their parents or in a bed with older persons.

It must be recognized in interpreting these results that these findings for prenatal and infant care do not necessarily represent entirely present practice for the record was for the last baby born, and for some this was several years ago. With all due allowance for improvement in services during the last decade, these findings undoubtedly reflect the urgent need for extending and improving provisions for care of expectant mothers and their infants.

More Adequate Diets

Basic to the health and welfare of a people is the adequacy of the diets on which they live. The diets of the large majority of Puerto Rican families are deficient in most of the dietary essentials especially good quality protein, calcium, vitamin A, and riboflavin. These deficiencies can be accounted for by the lack of specific foods that are needed to supply them, and by dietary habits or prejudices that limit their use:

Too Little Milk

Milk is depended on mainly to supply calcium and riboflavin, and it is a source of good quality proteins and other factors as well. An average of a least a pint of milk per person daily is the minimum that should be provided for a family, and more is safer and desirable. Yet:

—79.8 per cent of rural and 65.0 per cent of urban families average less than one pint of milk per person daily, and

—54.7 and 30.7 per cent respectively have less than 1 cup per person or none at all. In the lowest income group

—87.7 per cent of rural and 89.6 per cent of urban families have less than 1 pint per person, and

—67.3 and 54.5 per cent respectively have less than one cup per person per day.

Too Little and Poor Quality Protein

Eggs, meat, fish and fowl, together with milk, supply good quality protein and some legumes as soy beans, chick peas, and pigeon peas furnish protein of practically equal value, yet:

—76.1 per cent of rural and 63.3 per cent of urban families have less than 3 eggs per person weekly and 39.1 and 27.3 per cent respectively have less than one or none at all.

—67.4 per cent of rural and 65.8 per cent of urban families average less than 1 ounce of codfish per member daily, and 32.5 and 33.7 per cent respectively less than one-half ounce.

—One-fourth of rural (24.6%) and half of urban (51.1%) families, have meat only once or twice a month or practically never, and 23 to 31 per cent respectively have it only about once a week.

—More than half (50.6%) of rural and over three-fourths (82%) of urban families practically do not know the taste of fowl.

—On the day the diet records were obtained, 68.4 per cent of rural, 49.4 per cent of urban families had no meat, fish or fowl in the day's meal.

—Beans are used once or twice daily by 86.7 per cent of families, but the beans are largely the red kidney. The better types are used occasionally by only a small proportion of families.

It is thus apparent that taking all these foods together—milk, eggs, meat, fish, fowl and the better type of legumes—the amount is too small to supply the protein needs of the families, especially of growing children.

TOO FEW VEGETABLES

Vegetables are depended on to supply iron, minerals and certain vitamins. Green and yellow vegetables also supply vitamin A which is low in the average Puerto Rican diet. Yet:

—93 to 99 per cent of families in both regions never use any of the greens—chard, spinach, turnip, mustard, broccoli and others—and 94.2 and 79.7 per cent of rural and urban respectively never use carrots.

—From two-thirds to three-fourths of rural and from over one-fourth to half of urban families seldom or never use any of the next best group of vegetables—snap beans, lettuce, cabbage, or okra; and only 8 to 13 per cent of rural and 13 to 31 per cent of urban use them often.

—The best vegetables used are *calabaza*, onions and peppers.

—43.6 per cent of rural and 49.9 per cent of urban families use *calabaza* “often”. Unfortunately the amount used is commonly small—only a small piece to put into the beans—hence its contribution is not great. Peppers and onions are used largely for seasoning and their contribution is thus slight.

—Most used of all other vegetables are the *chayote*, and eggplant, which have negligible food value.

—*Viandas* are largely used, especially green plantain and green bananas, but the yellow varieties—yellow sweet potato, yellow *yautía*, *apio*—are little utilized and hence *viandas*, as well as other vegetables furnish little vitamin A to the dietaries. They do, however, supply calories and the B vitamins.

Too Little Use of Fruits, Especially Ones Rich in Vitamin C

Fruits furnish some of the same dietary factors as vegetables, but fresh fruits are also depended on to supply vitamin C, and yellow ones such as the mango, mamey, and ripe papaya also supply vitamin A.

—Fruits are little used for meals, and the quantities eaten between meals are uncertain and irregular.

—91.5 per cent of rural and 83.7 per cent of urban families had no fruit in their meals on the day the diet record was taken.

—Puerto Rican fruits are among the richest known in vitamin C, and yet they have low prestige value.

—63.3 per cent of rural and 80.7 per cent of urban families consider canned fruits most suitable for company desserts; only 36.7 and 19.3 per cent favor the native ones. Most favored of the imported fruits are pears, canned fruit cocktails, and peaches. Many prejudices also prevail in respect to fruits.

—23.1 per cent of rural and 27.8 per cent of urban families consider that some fruits are harmful. Chief among alleged offenders are mamey, mango, pineapple and guava. Some of them are considered poisonous in themselves, and some as dangerous only if eaten in some combination.

Poor Diets in General

From the lacks in specific foods as shown above it is apparent that the diets of the majority consists largely of carbohydrate foods.

—12.8 per cent of all families have diets consisting mostly of viandas, rice or other starchy food, most of them with only small quantities of milk or protein or none at all. They are severely lacking in all dietary essentials.

—33.6 per cent have diets made up predominately of rice and beans. 7.4 per cent have only these foods; 12.6 per cent have either a little milk or protein, and 13.6 per cent have a little of both. These diets, too, are lacking in most of the dietary factors.

—47.1 per cent of all families have diets composed largely of rice, beans, and generous amounts of *viandas*.

7.2 per cent have little or nothing else.

17.9 per cent have either some milk or protein, and 22.0 per cent have fair amounts of both. These diets are better than those of the two preceding groups, due especially to the B vitamins contributed by the *viandas*.

Only 22 per cent that have also fair amounts of milk and protein approach adequacy in most dietary factors.

—6.5 per cent of all families have quantities of meat or other protein food, a pint or more of milk per person, and rice, beans, *viandas*, and other foods in addition. These are generally adequate in all essentials, with the possible exception of vitamins A and C. This may be marginal due to the little use of “greens and yellows” and of fresh fruits.

From this analysis it is seen that only 28.5 per cent of all dietaries can be said to be adequate or fairly so, in most factors. The remaining 71.5 per cent are deficient in varying degree in most factors, markedly so in calcium, riboflavin, and good protein. In all diets vitamins A and C are low or questionable.

Education

Extension of educational facilities to reach a larger proportion of the people is generally admitted to be one of the most urgent needs in Puerto Rico. This includes both formal education in reading and other elementary subjects, and education in the essentials of living.

—Many children of school age are not now attending school. In the age period from 8 to 13 years, from 75 to 85 per cent of children are in school, but from this age on attendance drops off rapidly, as shown below:

	In School %	Out of School %
7 years	59.6	40.4
8 years	75.5	24.5
9 years	82.5	17.5
10 years	84.1	15.9
11 years	79.8	20.2
12 years	80.1	19.9
13 years	76.7	23.3
14 years	61.5	38.5
15 years	62.2	47.8

—Urban children have the advantage over rural ones, and children in the upper income groups over those in the lower income brackets.

—In the age group from 10-14 years, the percentage of children in school at the four income levels are:

	Rural —	Urban —
Less \$500	63.9	87.7
\$500-999	70.8	95.9
\$1,000-1,999	82.4	96.4
\$2,000 and over	85.7	97.7

The differences are even greater for ages 15 to 19 years.

—The educational level of adults is relatively low. 35 per cent of adults 25 years of age and over have had no schooling, and only 14.3 per cent have gone through the 8th grade.

—This level has, however, risen markedly during the last 5 decades. The percentage of persons that have had no schooling has *decreased* and the percentage that have completed the 8th grade has *increased* for the five age decades:

	No Scholling	8th Grade or more
65 and over	77.8	4.0
55-64	63.1	6.5
45-54	41.7	10.3
35-44	28.3	14.8
25-34	13.9	21.9

Though this represents a great advance over a 50 year period, there is still need for improvement.

Opportunities for continuing education through reading at home are few.

—55.6 per cent of all families have no books.

—40.8 per cent have no newspaper, 81.1 per cent have no magazines, and 49.7 per cent of rural families have neither books, papers, nor magazines.

Classes, clubs and other activities extend educational and cultural facilities to a limited extent.

—3.3 per cent of the families either the father or mother or both attends adult classes.

—In 23.4 per cent, some member belongs to some club or organization.

—In 32.2 per cent one or more members listens to the radio daily, and in another 5.4 per cent about once a week.

—4 per cent of families own a car, and

—In 6.5 per cent some member plays a musical instrument.

Facilities are more limited in rural families. To state the situation negatively:

—62.0 per cent of rural families have no books.

- 52.1 per cent have no newspaper,
- 91.0 per cent have no magazines and
- 49.7 per cent have no reading material in the home.
- In 97.8 per cent of the homes neither the father or mother attends adult classes.
- In 82.4 per cent no members belong to any club or organization.
- In 78.7 per cent no members listen to the radio daily.
- 97.5 per cent of families do not have a car, and
- In 93.7 per cent no members of the family play a musical instrument.

Some families undoubtedly are able to listen to lectures or concerts or to attend informal meetings which were not recorded. Even allowing for these, however, it can be seen for the large majority of families the opportunities for contact with educational and cultural agencies is extremely limited.

In the light of this over-all review, the problems of family living in Puerto Rico loom so large that any attempt to solve them may seem a hopeless task. But such should not be concluded. If along with the picture as here presented there were similar data for a few decades ago with which to compare them, it would be apparent that great advances have been made along many lines.

In some fields, indeed, progress can be clearly demonstrated. Incomes, though still far too low, have risen considerably in the past few years. Education has advanced markedly. A larger proportion of children are in school, and more than 6 times as many young adults of 25 to 35 years of age have had some schooling as was obtained by those who are now 65 years of age or older. Health conditions, in spite of the lacks still evident along all lines, are steadily improving. This is reflected in a constantly declining general death rate, a decreased incidence

of and death rate from specific diseases which formerly took their toll of large numbers, and in lowered maternal and infant mortality rates. Advances along many other lines are, moreover, evident to a long-time observer for which there are no definite base lines from which to assess them numerically. All these give courage and hope for the future.

The most encouraging fact is that the Government and its constituent agencies are keenly aware of the task that faces them. They are, moreover, as shown in the preceding pages, attacking it in its many-sided aspects with courage, vision, and resourcefulness, and above all, with hopefulness for the outcome. They are not blinking the fact that, in spite of the progress being made, the job ahead—that of making the resources of one small Island provide a decent standard of living for a constantly increasing population—is a gigantic one, upon which must be brought to bear all the resources of the brains, the energies, and the social consciousness of its agencies and its citizens.