### Examples of CD mechanisms and their features

|  Mechanism | Summary | Criteria for success | Potential effect on ownership and access | Equity | LLIN cost to user, mode of delivery  | Provider’s cost | Country experience |
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| Push Mechanisms[[1]](#footnote-1) |
| ANC | The LLIN is given to pregnant women at their first ANC visit, with counselling and advice on LLIN use as part of the ANC session.LLIN supply chain management, data collation and reporting, management and supervision of the system may be separate or integrated with other health service activities. The relative role of different sectors can vary. In some settings the public sector and civil society work in partnership; in others a three-way partnership, including the commercial sector in a distribution and supply chain management role, has been developed (e.g. Mozambique).Some models have provided the LLIN directly to beneficiaries; others have used vouchers. Coupons could also be used. | Functioning health facility network offering ANC, run by any sector.Good distribution system and supply chain management to avoid stock-outs.High levels of ANC attendance.Good awareness of LLIN availability and belief in their benefits among pregnant women. | Slight to medium. Turnover is linked to the % of women pregnant at any time (~5%) and the % of these that attend ANC (generally good—60% or more in most countries). | Free LLINs will be more equitably accessed than those sold. Equity is linked to access to ANC, which may not be equitable. | Free or subsidized to a variable degree. Can be direct, voucher, or coupon. | Highly variable, based on setting and model used. Transport costs are often a major component of overall cost.  | Many, including: DRC, Benin, Burkina Faso, Eritrea, Ghana, Kenya, Malawi, Mozambique, Somalia, Tanzania, Uganda, Zambia. |
| EPI | One LLIN is given to each child receiving a specific immunisation. Often, this has been measles (at 9 months), using the LLIN to help improve complete immunisation, or has been linked to the first immunisation to raise uptake or to DPT3 to promote DPT completion. If EPI is combined with ANC distribution, then it is appropriate to link the LLIN to one of the later vaccinations, as theoretically the young infant will still benefit from the LLIN received by the mother during ANC.As with ANC distribution (see above), a range of options is available for sector involvement and LLIN supply chain management and data collation and reporting. Management and supervision of the system may be separate or integrated with other health service activities. The LLIN may be given directly to beneficiaries, or vouchers could be used that can be redeemed against the cost of LLINs in retail outlets. | Functioning health facility network offering EPI, run by any sector.Good distribution system and supply chain management to avoid stock-outs.High levels of EPI participation.Good public awareness of LLIN availability and belief in their benefits among caregivers. | Slight to medium (similar to ANC system), given that EPI will primarily target <1s (~5% of population). EPI uptake is relatively good (>60%) in most countries.  | As with ANC free LLINs will be more equitably accessed than those sold, but the equity of the system will be linked to the equity of EPI access. | Free or subsidized to a variable degree.Can be direct, voucher, or coupon. | Highly variable, based on setting and model used. Transport costs are often a major component of overall cost. | UNICEF in some countries. Experience with intermittent distribution (e.g. child health weeks, for example) in Nigeria and Uganda.  |
| Schools | Limited experience. A range of different models could be considered, e.g. (i) continuous availability, with a stock managed by one assigned school staff member who provides LLINs according to specified criteria, which may be: anyone who asks for one (i.e. acts as a source for the general population in areas where the population cannot afford or has no access to a commercial sector distributor), those who have a new baby at home, new school registrants, etc. (ii) intermittent availability, with stock provided at the start of each school year for new intake, pupils entering a certain grade, etc.The supply chain and data collation and reporting may well need to be outside school system functions. An option could be to use the schools as a mechanism to deliver vouchers redeemable in the commercial sector or to deliver coupons redeemable at other nearby public-sector outlets (e.g. ANC services) for a free LLIN. This would avoid setting up a supply chain of LLINs within schools but would involve other management needs and costs.Inclusion of Koranic schools may expand access in some settings. | Good school enrolment. Even if attendance is low, as long as enrolment is high, there is a chance to use this delivery channel successfully.Ability to ensure supply to the schools, if LLINs are given directly. Ability to have a functional data reporting system on LLINs distributed. | May be great or slight, depending on the model. Can be fairly easily tailored to need. | Linked to equity of access to schools; therefore, variable between countries. Linking to primary level will be more equitable than to secondary in most settings. | Free or subsidized to a variable degree. Could be direct, voucher, or coupon. | Limited experience; no data available. Likely more expensive than ANC/EPI channels, as the same costs plus greater transport and supervision costs. | Small-scale projects in Sri Lanka, Yemen, Kenya. |
| Pull Mechanisms |
| Commercial sector | Several options exist for using this channel as a delivery mechanism:1. No support to the sector. This may be appropriate if a flourishing LLIN sector is already in place.
2. Support *excluding* price subsidies; where the programme does not provide money to directly reduce the price of LLINs but rather provides technical support on such matters as bidding on contracts, government policy on products, sourcing products, and marketing and/or financial support, e.g. for the logistics of an expanded network or to cover marketing costs.

This approach would be appropriate to expand the existing ITN and LLIN commercial sector’s reach, for example, or the quality of its products. 1. Price subsidies (which may be combined with other technical and financial support), in which a component of the funding is specifically designed to reduce the price of the product to the user. Price subsidies may be appropriate where the existing commercial ITN/LLIN sector needs more substantive support, where there are commercial-sector players in similar industries (textiles, etc.) interested in expanding their business but in need of considerable support and encouragement, or where the population’s ability and willingness to pay is particularly low.

The price subsidy can be applied at different points in the supply chain:Import subsidy. Importers are reimbursed a portion of the cost of a consignment. Simple to manage, but lacks clear assurance that the end price will be reflected the support.Supply subsidy. Distributors are reimbursed a portion of the cost of consignments of LLINs distributed down the supply chain within the country. It would be possible to target this subsidy to specific areas, such as more remote areas, to encourage commercial-sector expansion. This is harder to manage than an import subsidy, but the subsidy is closer to the outlet and therefore more likely to be reflected in the end price, although this still is not guaranteed.Point of sale subsidy. Sales points are asked to sell LLINs at a certain reduced rate and can then claim this back from the project. Vouchers could be used. The subsidy is more complex to manage than import or supply subsidies but puts the subsidy directly into the hands of the target population. | Good existing net, ITN, or LLIN sector. If not, then a strong existing commercial sector for other goods that can be given intensive support (under a package including technical, financial, and price support) to move into LLINs.Reasonably functional distribution network (road system) within the country to allow expansion into new areas, if this is the aim. Spending power in the target population.Awareness of LLINs and belief in their desirability or benefits among the target population.Low or no taxes and tariffs on LLIN imports. | Can be great or slight depending on demand. Since it is a push mechanism it is likely to avoid oversupply; families will not buy a LLIN unless they need one. | Less equitable than any free LLIN distribution, but its equity level depends on the price of the product and the spending power of the population. | Will vary from setting to setting. Cost to user depends on price subsidy. Voucher schemes directly lower costs.Commercial outlets provide LLIN directly, although may be part of a voucher scheme, with the vouchers given elsewhere. | Variable, depending on support model used. None if no support given, or at a cost if technical or financial support given. | Many, including Ethiopia, Ghana, Mali, Mozambique, Nigeria, Senegal, Tanzania, Uganda. |
| Social marketing | Conventional social marketing sees a specifically branded LLIN sold at a subsidized rate and distributed through the existing commercial sector, sometime supported with an independent supply chain. This network may use existing outlets, such as health facilities or shops, or have its own mobile sellers, but the supply chain, financing, and planning for the product is not integrated into the activities of those outlets. Strong marketing campaigns, usually carried out by the programme, are often able to raise the profile of the brand very successfully and achieve impressive sales. Costs can be set based on the spending power of the target group, which may be the general population or specific sub-groups. If a country aims to encourage a strong independent commercial LLIN sector, then social marketing will need to be carefully considered or well-designed to ensure that it allows concurrent growth of the natural commercial market and the sale of other approved LLIN brands. | Ability to set up and manage a system for supply and reporting on sales of the brand.Reasonably functional distribution network (road system) within the country. Some spending power in the target population.Awareness of LLINs and belief in their desirability or benefits among the target population. | Great or slight, depending on target group and success in creating demand. | Less equitable than any free LLIN distribution, but its equity level depends on the cost of the product and the spending power of the population. | Variable, depending on level of subsidy. Different LLIN products may be sold at different prices and targeted to different groups.LLINs sold directly. | High provider cost, but variable, depending on outlet system used. | Many, including Kenya, Pakistan, Nigeria. |
| Push/Pull Combination |
| Community groups | A very flexible distribution mechanism, which can be further defined and designed in many ways. The benefit of using community groups is to have a channel for access to LLINs in communities where other channels may not be present.Community groups could distribute LLINs based on nationally agreed criteria or set their own criteria locally. In the latter case, groups may be given a semi-annual allocation of LLINs and allowed to define their own criteria for distribution.The system may be a push mechanism if community members are allocated LLINs by the community group without their requests, but it is more likely to be a push-pull mechanism, where the national (or lower) level allocates the LLINs and delivers them to the community group, and community members are then able to request them. Nets may be given based on such criteria as ‘any family expressing a need’, ‘any family with a pregnant woman or new baby’, ‘poor families’, etc. | Ability to distribute allocations of LLINs down to community groups.Understanding in the community groups of their role and the conditions for distribution.Acceptance within the community of the distribution criteria agreed by the community group. | Depends on the number of LLINs allocated. In practice, allocations may go to a few defined areas or groups with specific needs. | Depends on criteria chosen, but, assuming LLINs are provided free, likely to be highly equitable. | Most useful to reach remote groups or poorest families. Therefore, likely to be free, although may be sold at subsidized price.Likely direct, although could be coupon or voucher. | Only limited experience.Costs will likely be driven largely by training and by transport costs, as the model is likely to be applied in remote areas. | Madagascar, Ethiopia |
| Vouchers | Voucher systems provide paper vouchers to intended beneficiaries through one channel (often at ANC, although could be at EPI, in schools, or by other channels). Vouchers can then be redeemed for a free or reduced-price LLIN at another location. Normally, voucher systems are seen as a way to support the LLIN commercial sector while improving equity and access for specific groups and increasing users’ choice of LLIN type. Therefore, the places where vouchers are redeemed are usually commercial outlets. Commercial sellers can then redeem the vouchers for reimbursement from the project, entailing associated management tasks and costs. | Functional channels for distributing vouchers and a functional commercial sector that will ensure voucher recipients can easily redeem vouchers for LLINs.Sufficient funding to cover the fairly high management costs. | Linked to the size of the target group.Voucher redemption rate will vary; can be high, but not always. | Variable, depending on subsidy level and access to both the voucher delivery channel and the retail outlets.  | Depends on level of subsidy. Possible to have vouchers of different values for different groups.  | Fairly high as a result of high costs of managing and supervising | Angola, DRC, Ethiopia, Ghana, Kenya, Madagascar, Mali, Nigeria, Rwanda, Uganda, Senegal, Zambia, Zimbabwe. |

1. This table presents mechanisms in push, pull, and combination categories to facilitate later discussion and planning. [↑](#footnote-ref-1)